# University of North Texas Bulletin | 2016-2017 Undergraduate Catalog 

Official release date is July 1, 2016<br>Catalog goes into effect at the beginning of the 2016 fall semester Program requirements are subject to necessary corrections

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This catalog is an official bulletin of the University of North Texas and is intended to provide general information. It includes policies, regulations, procedures and fees in effect at the time of release. UNT reserves the right to make changes at any time to reflect current Board of Regents rules, university administrative 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 individual. Updated policies and administrative procedures can be found on departmental or university web sites.

Students are responsible for observing the policies included here; therefore, they are urged to read this catalog carefully. This catalog does not include all university policies and procedures for which students are responsible. Students also should consult other publications, such as the Student Handbook, the Code of Student Conduct, Parking Regulations, Housing Handbook and specific contracts. This catalog becomes effective on the first day of the fall term/semester, 2016.

## Non-Discrimination Policy

It is the policy of the University of North Texas not to discriminate on the basis of race, color, religion, sex, age, national origin, disability, disabled veteran status or veterans of the Vietnam era status in the university's educational programs, activities, admissions or employment policies.

The university complies with federal and state equal opportunity laws and regulations, and through its diversity policy declares harassment, which is based on individual differences (including sexual orientation) to be inconsistent with the university's mission and educational goals.

Direct questions or concerns to the Office of Equal Opportunity 940-565-2737, or the Dean of Students Office 940-565-2648. TDD access: 800-735-2989.

## 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

Established in 1890, the University of North Texas is a place where students transform their lives through education and opportunity.

The flagship of the UNT System, UNT has a legacy of excellence in a broad range of academic areas. It is one of the nation's largest top-tier public research universities with 37,000 students and is the most comprehensive university in the Dallas-Fort Worth area. UNT graduated 8,200 students last year from its 12 colleges and schools and offers 100 bachelor's, 83 master's and 37 doctoral degree programs - many nationally and internationally recognized. Ranked a Tier One research university by the Carnegie Classification, UNT drives innovation and technology through high-level research and scholarship, and contributes to the region and state through intellectual capital and economic development.

UNT has been named one of America's 100 Best College Buys® for 20 consecutive years, a ranking based on having a high-achieving freshman class and affordable tuition. The Princeton Review continually names UNT as a Best in the West school and Forbes has listed UNT as a Best University every year since it started its top colleges list.

## Location

UNT is in Denton, a college town of about 123,000 people located 40 miles north of Dallas and Fort Worth. The 900-acre campus includes 172 buildings and Discovery Park, a 300-acre research facility. Discovery Park is accessible by shuttle buses, as are residence halls, athletic facilities and other areas of campus.

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. UNT fuels the North Texas region through innovation, education and research; forming partnerships with many business, industry, education, government and cultural organizations.

## The university's mission

UNT is a public research university deeply committed to advancing educational excellence and preparing students to become thoughtful, engaged citizens of the world.

## The university's vision

As the most comprehensive public research university providing a top quality education in one of the nation's largest, most dynamic regions, UNT will be celebrated for its academics, arts and athletics. UNT will be a diverse and inclusive institution creating knowledge and innovations that will shape the future, while cultivating excellence in the next generation of scholars and leaders for the global community.

## Achieving the vision

## UNT's promise

The University of North Texas' ultimate responsibility is to provide students with the best education possible, so they may achieve their goals, succeed at the highest levels and improve their communities, the state of Texas, the nation and the world.

UNT promises to offer students a challenging, rigorous, high-quality education and provide a supportive environment to help them successfully learn and grow.

UNT promises to contribute to the greater good through scholarship, research, creative endeavors and public service.

## History of the university

UNT was founded in 1890 as 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 remains 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 score well above the national and state averages on the SAT, and choose UNT for the quality of its programs. 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 in the U.S. and first Master of Science program in merchandising offered completely online
- 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 applied 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. and the first to require a year abroad
- First retail program in the U.S. to integrate courses in merchandising, digital retailing, store operations, finance, and retail strategy


## Faculty

At the heart of the university's efforts to carry out its mission are the faculty. Individually, UNT faculty members have been singled out for contributions to their teaching and research fields through diverse national and international awards.

Collectively, the faculty have contributed significantly to research and scholarship within various fields through numerous publications, presentations at scholarly conferences, concerts, recitals, exhibitions and performances.

Faculty leadership in teaching, research, creative activities, performance and service activities has created national and international reputations for excellence for a number of academic programs within the university's 12 schools and colleges.

## 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, and 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 Resources section of this catalog, call the Student Activities Center at 940-565-3807 or visit studentactivities.unt.edu.

## UNT libraries

A wide range of student- and faculty-centered services are the cornerstone of the Libraries' integral role in the UNT community. As an essential component of education and research at UNT, the Libraries offer access to more than seven million items (print and digital), along with expert personnel to assist patrons in achieving their academic and scholarly goals. Visit us online at www.library.unt.edu.

## Services

UNT Libraries' services include:

- Willis Library open 24/7 during long semesters
- Mac and PC laptop checkout
- Free video games, movies, music and more
- The Study cafe in Willis Library
- Electronic resources, including journals, books and other research materials
- Library instruction, subject guides and tutorials
- Research assistance from subject experts
- Accessible tables, study carrels, and computers in Willis, Eagle Commons, Media and Discovery Park libraries


## Libraries and collections

UNT Libraries have many exceptional collections:

- The Music Library is one of the country's largest music collections, with an extensive phonographic disc and tape collection, and the private jazz collections of Stan Kenton, Don Gillis, Whit Ozier and Leon Breeden.
- Special Collections preserve and provide access to an incredible wealth of materials that document the history and legacy of Texas, as well as touch on numerous topics of national import. Collections include the history of the university, oral histories and Texas county records. Other important archival collections include those of Sarah T. Hughes, Enid Justin and Ruth Salmon. The holdings also feature an outstanding miniature book collection; the private library of Anson Jones, President of the Republic of Texas; Texas Society of Sons of the American Revolution; the Weaver Collection of Juvenile materials; and examples of important early publishing, printing and binding styles. Recently expanded collections include the Lesbian, Gay, Bisexual, and Transgender Archive; the Latino/Latina Archive; and the Photography and Visual Materials Collection, which includes the photographic archives of several prominent photographers.
- The Government Documents Department contains U.S. and Texas government documents, including the Texas Register. The library has received national recognition for its efforts to preserve online government information through the CyberCemetery and participation in the 2008 End-of-Term Harvest of U.S. government web sites. The UNT Libraries have the distinction of being one of ten affiliated archives of the National Archives.
- Through collaborative efforts such as the Portal to Texas History and the UNT Digital Library, the Libraries provide digital content to a worldwide audience. The Portal is a gateway to Texas history materials from more than 250 partners at libraries, museums and archives across Texas. The UNT Digital Library is ranked in the top 15 digital repositories in North America and is 19th best globally. Highlighted collections in the UNT Digital Library include UNT electronic theses and dissertations, the Federal Communications Commission Record, UNT Scholarly Works, a Virtual Music Rare Book Room and the World War poster collections.
In addition to Willis Library, UNT Libraries include the following:
- The Media Library in Chilton Hall, which houses a large collection of audiovisual materials, including videos, 16 mm - films and audio CDs. Video-on-demand service is provided for curriculum support.
- The Discovery Park Library, which supports the College of Engineering and the College of Information.
- The Eagle Commons Library in Sycamore Hall, which focuses on physics, chemistry, biology, art and psychology and includes an outstanding collection in mathematics. The Collaboration and Learning Commons offers the ideal place on campus to study in groups, create multimedia projects and record presentations.
- The Library Annex and the Research Collection Library—both located off-campus—which provide storage for and house the preservation and technical services departments.


## Computer services

Centralized campus computing services that support instruction, research and student learning are provided through University Information Technology (UIT; it.unt.edu) and is located in Suite 336-338 of Sage Hall. UIT services include support for a wide range of research computing platforms, student messaging, training, consulting and the university computing help desk (helpdesk.unt.edu).

In addition to the services directly supported by UIT , computer services are also available from the University Libraries and many college, school and departmental computer support centers. Computer networks are installed in all academic departments, providing Internet connectivity. Wireless networking (UNT secure network and Eaglenet) is available in most campus classroom buildings and in public buildings such as the University Union and UNT Libraries. Online courses are offered with support from the Center for Learning Enhancement, Assessment and Redesign (CLEAR; clear.unt.edu) using computing systems supported by the Information Technology Shared Services (ITSS; itss.untsystem.edu).

## Student computing services

Thirteen general access microcomputer labs (computerlabs.unt.edu), housing approximately 700 computers, are available to all students for use of both Windows and Macintosh personal computers. Laser printers are provided in all labs. Approximately 30 additional special-purpose labs serve students in particular disciplines or students living in university residence halls. In addition, all residence hall rooms have network connections, allowing students to have high-speed access to the Internet and the campus network on their own computers.

Information Technology Shared Services (ITSS) provides electronic mail to all students via EagleConnect (eagleconnect.unt.edu), a web-based email and calendar system. EagleConnect is used as an official communication medium between the university and students. Through the EagleConnect service, students can also download and install Microsoft Office to their personal computing devices free of charge.

## Research computing support

University Information Technology (UIT) supports multiple High Performance Computing (HPC) systems used for computationally intensive scientific research (hpc.unt.edu).

UIT provides support for SPSS, SAS, R, Matlab, and other statistical analysis mathematics programming languages. SAS, SPSS, R, and Matlab are available for use in many of the general access computing labs. Documentation, training and consultation support are available for all supported statistical programming applications (www.unt.edu/rss).

UIT supports access to machine-readable data collections including the Inter-University Consortium for Political and Social Research (ICPSR) data archives, Standard and Poor's COMPUSTAT and the Center for Research in Security Prices' (CRSP) data sets. The University Libraries also maintain a number of databases and other research materials on CD-ROM servers that are accessible through the campus network.

## Consulting, training and help desk services

Consulting and training are provided by University Information Technology (UIT) to facilitate the use of research and instructional computing facilities. Short courses are offered on statistical packages and research techniques that are of particular interest to students involved in research activities.

Computer-based training programs are accessible within general access computer labs or via the web (it.unt.edu/training). Experienced consultants are available to assist students with computing problems.

UIT operates the university computing help desk service to provide students with information and help on a variety of computing problems (helpdesk.unt.edu). The help desk is located in Sage Hall, Room 130. The phone number is 940-565-2324.

Benchmarks Online (www.unt.edu/benchmarks), University Information Technology's (UIT) newsletter, is published monthly and is an excellent source for news about computing and information technology resources in use at UNT.

## Accreditation

The University of North Texas is accredited by the Southern Association of Colleges and Schools Commission on Colleges (1866 Southern Lane, Decatur, GA 30033-4097; telephone 404-679-4500) to award bachelor's, master's and doctoral degrees. Inquiries to the commission should relate only to the accreditation status of the institution.

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

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AACSB International — The Association to Advance Collegiate Schools of Business
ABET
ABET-Computing Accreditation Commission
ABET-Technology Accreditation Commission
Accreditation Commission for Programs in Hospitality Administration
Accrediting Council on Education in Journalism and Mass Communications
American Association of Forensic Science
American Chemical Society
American Council on the Teaching of Foreign Languages
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American Library Association
American Psychological Association
American Speech-Language-Hearing Association
Association for Behavior Analysis International
Association for Childhood Education International
Association for Middle Level Education
Commission on English Language Program Accreditation
Council for Accreditation of Counseling and Related Educational Programs
Council for Interior Design Accreditation
Council on Rehabilitation Education
Council on Social Work Education
Development, Family Studies, and Early Childhood Education
National Accreditation Commission for Early Care and Education Programs
National Association of Schools of Art and Design
National Association of Schools of Music
National Association of Schools of Public Affairs and Administration
National Association for Sport and Physical Education
National Council for Accreditation of Teacher Education
National Council for the Social Studies
National Recreation and Park Association/American Association of Leisure and Recreation Council on Accreditation
Texas State Board for Educator Certification

See Accrediting Institutions for addresses of accrediting organizations.

In addition, the University of North Texas offers programs that are approved or recognized by:
American Alliance for Health, Physical Education, Recreation and Dance
Council for Exceptional Children
Educational Leadership Constituent Council
International Society for Technology in Education
National Council of Teachers of English
National Council of Teachers of Mathematics

## Institutional memberships

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 Mathematical Society
American Political Science Association
Association for Symbolic Logic
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 Chemical Research
Council for Higher Education Accreditation
Council for Public University Presidents and Chancellors
Council of Graduate Schools
Council on Undergraduate Research
Dallas Dance Council
Federation of North Texas Area Universities
Greater Denton Arts Council

Hospitality Sales and Marketing Association International
International Council of Shopping Centers
International Council on Hotel, Restaurant and Institutional Education
International Textile and Apparel Association
Mathematical Association of America
National Association of State Universities and Land-Grant Colleges
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

## Administration, faculty and librarians

See the Administration, faculty and librarians section for lists of university officers, UNT System officers and academic deans.
Information regarding individual faculty members and librarians is available from the Faculty Profile System (faculty.unt.edu/index.php). Select "Faculty Profiles" from the Browse menu. To access faculty information from a specific department or from the Libraries, use the drop-down menu at the head of the faculty list.

Graduate faculty of the Graduate School of Biomedical Sciences and the School of Public Health at the University of North Texas Health Science Center at Fort Worth (UNTHSC) 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 UNTHSC Graduate Catalog for UNTHSC graduate faculty listings.

## 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 Smatresk (2014-present)
From 1981 until 2000, 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 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 chancellors

Frank E. Vandiver (1981)
Howard E. Smith (ad interim, 1981)
Alfred F. Hurley (1981-2002)
Lee Jackson (2002-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.

## 2016-2017 Academic calendar

Dates are subject to change by official action of UNT.

## Fall 2016

August 29, 2016

August 26 - September 2, 2016

September 2, 2016

September 5, 2016
September 13 - November 7, 2016
October 7, 2016

October 7, 2015

October 8 - November 23, 2016

November 14, 2016

November 23, 2016

November 24-27, 2016

December 7-8, 2016

December 8, 2016

December 9, 2016

December 10-16, 2016

December 16, 2016

December 16-17, 2016

December 24, 2016 - January 1, 2017

First class day (Monday)

Student-requested schedule changes may be made during add/drop.

Last day for change of schedule other than a drop. (Last day to add a class.)

Labor Day (university closed)
Student may drop a course with written consent of instructor.

Last day for change in pass/no pass status.

Last day to drop a course or withdraw from the university with a grade of W for courses a student is not passing. After this date a grade of WF may be recorded.

Instructors may drop students with a grade of WF for nonattendance.

Beginning this date a student who qualifies may request a grade of I, incomplete. (See "Grading system" in the Academics section of this catalog.)

Last day to withdraw from the semester. Process must be completed by 5 p.m. in the Dean of Students Office.

Thanksgiving break (university closed)

Pre-finals days

Last class day

Reading day (no classes)

Final examinations

End of term

Graduation ceremonies

Winter break (university closed)

MLK Day (university closed)

| January 13-20, 2017 | Student-requested schedule changes may be made during add/drop. |
| :---: | :---: |
| January 17, 2017 | First class day |
| January 20, 2017 | Last day for change of schedule other than a drop. (Last day to add a class.) |
| January 31 - April 4, 2017 | Student may drop a course with written consent of instructor. |
| February 24, 2017 | Last day for change in pass/no pass status. |
| February 24, 2017 | Last day to drop a course or withdraw from the university with a grade of W for courses a student is not passing. After this date a grade of WF may be recorded. |
| February 25 - April 21, 2017 | Instructors may drop students with a grade of WF for nonattendance. |
| March 13-19, 2017 | Spring break (no classes) |
| April 17, 2017 | Beginning this date a student who qualifies may request a grade of I, incomplete. (See "Grading system" in the Academics section of this catalog.) |
| April 21, 2017 | Last day to withdraw from the semester. Process must be completed by 5 p.m. in the Dean of Students Office. |
| May 3-4, 2017 | Pre-finals days |
| May 4, 2017 | Last class day |
| May 5, 2017 | Reading day (no classes) |
| May 6-12, 2017 | Final examinations |
| May 12, 2017 | End of term |
| May 12-13, 2017 | Graduation ceremonies |

## Summer Term 2017

May 15, 2017
May 15, 2017

May 15, 2017

May 29, 2017
June 1 - July 14, 2017
June 23, 2017

June 23, 2017

First class day
Student-requested schedule changes may be made during add/drop.

Last day for change of schedule other than a drop. (Last day to add a class.)

Memorial Day (university closed)
Student may drop a course with written consent of instructor.
Last day for change in pass/no pass status.

Last day to drop a course or withdraw from the university with a grade of W for courses a student is not passing. After this date a grade of WF may be recorded.

June 26 - August 2, 2017

July 4, 2017

July 26, 2017

August 2, 2017

August 10, 2017
August 11, 2017

## 3W1 Term 2017

May 15, 2017

May 15, 2017

May 17-25, 2017
May 18, 2017

May 18, 2017

May 19-25, 2017
May 29, 2017

May 25, 2017

May 26, 2017

May 31, 2017

June 1, 2017

8W1 Term 2017

Instructors may drop students with a grade of WF for nonattendance.

Independence Day (university closed)
Beginning this date a student who qualifies may request a grade of I, incomplete. (See "Grading system" in the Academics section of this catalog.)

Last day to withdraw from the semester. Process must be completed by 5 p.m. in the Dean of Students Office.

Last class day
Final examinations

First class day

Student-requested schedule changes may be made during add/drop.
Last day for change of schedule other than a drop. (Last day to add a class.)

Student may drop a course with written consent of instructor.
Last day for change in pass/no pass status.

Last day to drop a course or withdraw from the university with a grade of W for courses a student is not passing. After this date a grade of WF may be recorded.

Instructors may drop students with a grade of WF for nonattendance.
Memorial Day (university closed)

Last day to withdraw from the semester. Process must be completed by 5 p.m. in the Dean of Students Office.

Beginning this date a student who qualifies may request a grade of I, incomplete. (See "Grading system" in the Academics section of this catalog.)

Last class day

Final examinations

| May 15, 2017 | Student-requested schedule changes may be made during add/drop. |
| :---: | :---: |
| May 15, 2017 | Last day for change of schedule other than a drop. (Last day to add a class.) |
| May 29, 2017 | Memorial Day (university closed) |
| May 24 - June 15, 2017 | Student may drop a course with written consent of instructor. |
| June 6, 2017 | Last day for change in pass/no pass status. |
| June 6, 2017 | Last day to drop a course or withdraw from the university with a grade of W for courses a student is not passing. After this date a grade of WF may be recorded. |
| June 7-15, 2017 | Instructors may drop students with a grade of WF for nonattendance. |
| June 15, 2017 | Last day to withdraw from the semester. Process must be completed by 5 p.m. in the Dean of Students Office. |
| June 16, 2017 | Beginning this date a student who qualifies may request a grade of I, incomplete. (See "Grading system" in the Academics section of this catalog.) |
| July 4, 2017 | Independence Day (university closed) |
| July 6, 2017 | Last class day |
| July 7, 2017 | Final examinations |

## 5W1 Term 2017

June 5, 2017

June 5, 2017

June 5, 2017

June 9-28, 2017

June 15, 2017

June 15, 2017

June 16-28, 2017

June 28, 2017

June 29, 2017

July 4, 2017

First class day
Student-requested schedule changes may be made during add/drop.

Last day for change of schedule other than a drop. (Last day to add a class.)

Student may drop a course with written consent of instructor.

Last day for change in pass/no pass status.
Last day to drop a course or withdraw from the university with a grade of W for courses a student is not passing. After this date a grade of WF may be recorded.

Instructors may drop students with a grade of WF for nonattendance.
Last day to withdraw from the semester. Process must be completed by 5 p.m. in the Dean of Students Office.

Beginning this date a student who qualifies may request a grade of I, incomplete. (See "Grading system" in the Academics section of this catalog.)

Independence Day (university closed)

July 6, 2017

July 7, 2017

## 10W Term 2017

June 5, 2017
June 5, 2017

June 5, 2017

June 15 - July 18, 2017

June 28, 2017

June 28, 2017

June 29 - July 18, 2017
July 4, 2017

July 18, 2017

July 25, 2017

August 10, 2017
August 11, 2017

## 5W2 Term 2017

July 10, 2017

July 10, 2017

July 14 - August 2, 2017
July 20, 2017

July 20, 2017

First class day
Student-requested schedule changes may be made during add/drop.
Last day for change of schedule other than a drop. (Last day to add a class.)

Students may drop a course with written consent of instructor.

Last day for change in pass/no pass status.
Last day to drop a course or withdraw from the university with a grade of W for courses a student is not passing. After this date a grade of WF may be recorded.

Instructors may drop students with a grade of WF for nonattendance.
Independence Day (university closed)
Last day to withdraw from the semester. Process must be completed by 5 p.m. in the Dean of Students Office.

Beginning this date a student who qualifies may request a grade of I , incomplete. (See "Grading system" in the Academics section of this catalog.)

Last class day
Final examinations

First class day
Student-requested schedule changes may be made during add/drop.
Last day for change of schedule other than a drop. (Last day to add a class.)

Student may drop a course with written consent of instructor.
Last day for change in pass/no pass status.

Last day to drop a course or withdraw from the university with a grade of W for courses a student is not passing. After this date a grade of WF may be recorded.

July 21 - August 2, 2017

August 2, 2017

August 3, 2017

August 10, 2017

August 11, 2017

## Additional calendar information

Admissions

Graduate Schoo

## Registrar's Office

Student Accounting and University Cashiering Services

## Housing

New Student Programs (including Orientation, which is required of all new undergraduate students)

Phone: 940-565-2681

Web site: www.unt.edu/admissions.htm

Phone: 940-565-2383

E-mail: graduateschool@unt.edu
Web site: gradschool.unt.edu

Phone: 940-565-2378

E-mail: registrar@unt.edu

Web site: www.unt.edu/registrar

Phone: 940-565-3225

Web site: www.unt.edu/tuition

Phone: 940-565-2610

E-mail: housinginfo@unt.edu

Web site: www.unt.edu/housing

Phone: 940-565-4198

E-mail: freshman@unt.edu and transfer@unt.edu

Web site: www.unt.edu/nsp

Phone: 940-565-4822

E-mail: international @unt.edu

Web site: Www.international.unt.edu

Libraries Web site: www.library.unt.edu

## Dates subject to change at any time by official action of UNT.

Academic Calendar: http://www.unt.edu/catalog/

## Admission

> Admission policies are reviewed periodically and are subject to change. Check the UNT web site at admissions.unt.edu for the latest admission information or contact the Office of Admissions at 940-565-2681, 800-868-8211, Dallas-Fort Worth Metro 817-267-3731. Answers to the most frequently asked questions can be viewed at Ask UNT (www.unt.edu/AskUNT); if a particular question is not answered there, it can be emailed to the Office of Admissions through that site.

## Application for admission for new undergraduate students

The University of North Texas is a selective university and does not guarantee admission of all applicants. It is recommended that students apply well in advance of stated application deadlines.

The University of North Texas requires the ApplyTexas Application for Freshman Admission and the ApplyTexas Application for Transfer/Transient/Former Students. All new undergraduate applicants must use the ApplyTexas Application. It is highly recommended that the application be completed and submitted electronically (www. applytexas.org). For easy access to the ApplyTexas Application and admission deadline dates visit www.unt.edu/vwbk/gettingstarted.htm. Copies of the application form also are available from the Office of Admissions, 1155 Union Circle \#311277, Denton, TX 76203-5017. Letters of inquiry should note status as a new student, graduate or undergraduate, permanent resident alien or international student. All non-U.S. citizens who are seeking undergraduate enrollment and who hold permanent resident alien status in the United States apply through undergraduate admissions.

Prospective students should apply as early as possible. All necessary credentials, such as application forms, all official transcripts, required entrance test scores, etc., must be on file in the Office of Admissions (undergraduate) by the following deadlines to be evaluated and processed for admission and enrollment at UNT (applications received after these deadlines will be subject to a late registration fee).

## Fall 2016

- Feb. 1, 2016-to allow time for processing prior to the March 1, 2016, scholarship application deadline, freshmen should apply and pay fee no later than Feb. 1, 2016
- March 1, 2016—priority application date for freshmen
- July 1, 2016—priority application date for transfer students


## Spring 2017

- Dec. 1, 2016, for classes beginning Jan. 17, 2017


## Summer 2017

- May 8, 2017, for classes beginning May 15, 2017
- May 29, 2017, for classes beginning June 5, 2017
- July 3, 2017, for classes beginning July 10, 2017


## Fall 2017

- February 1, 2017 - To allow time for processing prior to the March 1, 2017, scholarship application deadline, freshmen should apply and pay fee no later than February 1, 2017
- March 1, 2017 - priority application date for freshmen
- July 1, 2017 - priority application date for transfer students

Students who submit applications after these dates are subject to a late application fee. If accepted, students will have to register during the late registration period and pay a late registration fee.

See registrar.unt.edu for the latest information about offerings and associated enrollment services.

Any applications received after the above deadlines must be accompanied by all official transcripts and required test scores for evaluation. The prospective student must meet the stated admission requirements, must register for courses during late registration and will be subject to a late registration fee. No applications for admission by individual review can be accepted after the stated deadline dates. No applications for Spring 2016 will be accepted after Thursday, January 15. All official documents for Spring 2017 must be received by Thursday, January 5, to allow time for processing prior to the start of the semester. No applications for Fall 2016 will be accepted after Friday, August 25. All official documents for Fall 2016 must be received by Friday, August 18, to allow time for processing prior to the start of the semester. All new undergraduate students enrolling must comply with state law and university policies concerning the Texas Success Initiative as described in the Academics section of this publication.

Contact the Office of Admissions for information at 940-565-2681, 800-868-8211, Dallas-Fort Worth Metro 817-267-3731, or online at Ask UNT (www.unt.edu/AskUNT).

## Former students

All previous regularly admitted students will not need to re-apply for admission. If you have not enrolled at UNT at least once during the 12 consecutive months prior to the term/semester you wish to return, please contact the Registrar's Office for information or go to www.applytexas.org and fill out a former student application. All students previously admitted as transient, summer visitor, special student, or for dual credit must first contact the Office of Admissions for clearance to re-enroll.

## Programs with specific requirements

The Office of Admissions coordinates all universitywide admissions policies and procedures for undergraduate programs. Some programs require that students meet additional requirements in order to be admitted to a particular program. Those programs with admission requirements in addition to those for the general university are listed below. Students should consult that section of the catalog for specific requirements.

## College of Arts and Sciences

Biochemistry
Biology
Communication Studies
Converged Broadcast Media
English
International Studies
Psychology
Radio/Television/Film
Theatre

## College of Business

All programs

## College of Education

Teacher Education

## College of Engineering

All programs

## College of Information

BS - Information Science

## Frank W. and Sue Mayborn School of Journalism

All programs

## College of Merchandising, Hospitality and Tourism

All programs

## College of Music

All programs

## College of Public Affairs and Community Service

Social Work

## College of Visual Arts and Design

All programs

## Admission application fee

All applicants new to the University of North Texas must pay a $\$ 75$ (U.S. citizens and permanent resident aliens) or \$85 (all others, i.e., international students) non-refundable admission application fee. The fee must be paid in U.S. dollars. Students applying after the application deadline must submit a $\$ 90$ application fee.

Admission applications will be processed after the application fee is received. Admission decisions will be made after all academic credentials are received and evaluated.

Contact the Office of Admissions for information at 940-565-2681, 800-868-8211, Dallas-Fort Worth Metro 817-267-3731, or online at Ask UNT (www.unt.edu/AskUNT).

## High school graduates

Note: Admission requirements are subject to change. For the latest information, visit the UNT web site: www.unt.edu/admission.
The University of North Texas is a selective university and does not guarantee admission of all applicants. It is recommended that students apply well in advance of stated application deadlines.

Students admitted to the first term/semester of college work must have graduated from an accredited high school and complete course work equivalent to the Recommended, Distinguished, or Foundation high school graduation program. Students must submit an application for admission to UNT with a transcript showing their high school credits and rank in their graduating class. Transcripts showing rank in class should be sent after completion of the junior year. For admissions purposes, a high school rank is required. If your school does not rank, the Office of Admissions will assign you a rank based on a review of your high school transcript, including your SAT and/or ACT scores as pursuant by Section 51.9241 of the Texas Education Code.

In addition, students must present satisfactory scores on the SAT* Test or the ACT according to their rank in class (see "Entrance Examination" in this section). Appropriateness of experience in lieu of academic credential (i.e., GED, home schooling, graduation from an unaccredited high school, etc.) may be assessed on an individual review basis by the UNT Admissions Review Committee (ARC). For more information, see "Admission by Individual Review" in this section of the catalog. To be more successful at UNT, we strongly recommend that students successfully complete the following classes in high school:

- English: 4 credits (English I-IV)
- Mathematics: 4 credits (Algebra I, Geometry, Algebra II and Pre-Calculus)
- Sciences: 4 credits (to be selected from Biology, Chemistry, Environmental Sciences and Physics)
- Social Sciences: 4 credits (World Geography, World History Studies, U.S. Government and Economics and U.S. History)
- Foreign Language: 2 credits (Levels I-III proficiency of the same language) (UNT recommends 3 credits)
- Health: $1 / 2$ credit minimum
- Fine Arts: 1 credit
- Physical Education: 1 1/2 credits
- Computer Science: 1 credit (demonstrated proficiency at Level I)
- Electives: $31 / 2$ credits
- Speech: $1 / 2$ credit
*Starting in March 2016, the SAT test will be reconfigured and scores may be re-centered compared to the old SAT scores. Any SAT scores mentioned are subject to change. Please visit admissions.unt.edu for updated information.


## Entrance examination

Minimum scores for the entrance exam vary according to the applicant's rank in the high school graduating class. Current requirements are listed below.

## Admission of new freshmen

Policies for the admission of new freshmen are established by the North Texas Board of Regents. 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.

Per the Texas Education Code, Sections 51.801-51.809, in addition to a Texas general academic teaching institution's admissions requirements, a first-time freshman, regardless of when the student graduated from high school, must also have met one of the following:

1. Successfully completed the distinguished level of achievement under the Foundation, Recommended, or Advanced High School program from a Texas public high school as outlined under Texas Education Code, 28.025, as well as 19 TAC 74.63, 74.64, 74.73, and 74.74;
2. Successfully completed a curriculum from a high school in Texas other than a public high school that is equivalent in content and rigor to the distinguished level of achievement under the Foundation, Recommended, or Advanced High School program;
3. Satisfied ACT's College Readiness Benchmarks on the ACT assessment; (NOTE: the ACT College Readiness Benchmarks are English=18, Math=22, Social Sciences=22, Science=23); or
4. Earned on the SAT* assessment a score of at least a 1500 out of 2400 , or the equivalent (SAT scoring is scheduled to change in 2015 based on current College Board information).
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.

For the student graduating from an out-of-state or international high school, the necessary curriculum information will be provided by completing the appropriate form found on the THECB web site: www.thecb.state.tx.us/uap.

- Form 1 - Texas Private High School Certification Form, for students who did not complete Integrated Physics and Chemistry prior to 2010-2011
- Form 2 - Texas Private High School Certification Form, for students who completed Integrated Physics and Chemistry prior to 20102011
- Form 3 - Texas Private High School Certification Form, for students graduating under the Foundation High School program in 20142015 or later
Forms can be obtained from the Texas Higher Education Coordinating Board web site (www.thecb.state.tx.us/uap).

Applicants meeting the curriculum or the ACT/SAT* assessment score requirements mandated by the Texas Education Code, but not meeting UNT's admission requirements, may be reviewed individually by the Office of Undergraduate Admission. Students must meet requirements as outlined by TEC Sections 51.801-51.809 or via the appropriate documentation using the appropriate form in order to be considered for admission at UNT.

Note: Admission requirements are subject to periodic review and change. For the latest information, visit the UNT web site: www.unt.edu/admission.
*Starting in March 2016, the SAT test will be reconfigured and scores may be re-centered compared to the old SAT scores. Any SAT scores mentioned are subject to change. Please visit admissions.unt.edu for updated information.

## Automatic admission

In compliance with state law, applicants who graduated in the top 10 percent* of their high school class and who completed course work equivalent to the distinguished level of achievement under the Foundation, Recommended or Advanced High School program as outlined under the Texas Education Code 28.025 or higher shall be admitted automatically to the university.

## Regular admission

Applicants shall be guaranteed admission if they meet the minimum course work requirement and:

- Rank in the next 15 percent and have a minimum 950 SAT** (combined critical reading/verbal + math) or 20 ACT or $^{*}$
- Rank in the 2nd quarter and have a minimum 1050 SAT** (combined critical reading/verbal + math) or 23 ACT or $^{\text {- }}$ (

Applicants who rank in the 4th quarter, or applicants who do not meet the requirements in either the automatic or regular admissions categories, will have their applications reviewed by a UNT admission officer. (See "Admission by Individual Review" in this section.)
*All applicants to the University of North Texas must submit SAT or ACT scores. Applicants in the top 10 percent not scoring at least 950 SAT (combined critical reading/verbal + math) or 20 ACT and all applicants admitted by individual review, regardless of rank in class or test scores, will be required to participate in success programs as may be recommended. The writing section of the SAT or ACT is a requirement for admission to the University of North Texas.
**Starting in March 2016, the SAT test will be reconfigured and scores may be re-centered compared to the old SAT scores. Any SAT scores mentioned are subject to change. Please visit admissions.unt.edu for updated information.

High school seniors who plan to attend UNT should take entrance examinations at least five months before enrollment dates. See a high school counselor for more information or visit: The College Board web site at http://sat.collegeboard.org; or ACT, www.actstudent.org. (The UNT institutional codes for score reporting purposes are SAT, 6481; ACT, 4136.)

## Undergraduate admission requirements

| Classification | Prerequisites | Official transcripts | Entrance exam ${ }^{1}$ |
| :--- | :--- | :--- | :--- | :--- |
| Beginning freshman <br> (student who has never <br> attended college or <br> community <br> college) with a HS <br> rank | Graduation from an accredited high school and <br> completion of the distinguished level of achievement <br> under the Foundation, Recommended, or Advanced <br> Eigh School program as outlined under the Texas <br> Education Code 28.025. ${ }^{3}$ Per the Texas Education <br> Code, Sections 51.801-51.809 beginning freshmen <br> must meet the Texas Uniform Admissions <br> requirements in order to be considered for admission <br> to UNT. | Yes: Showing rank in class <br> through at least junior | Automatic admission-Applicants <br> who graduated in the top 10 percent <br> of their high school class shall be <br> admitted automatically to the <br> university.* |


| Summer visiting <br> student ${ }^{2}$ (summer <br> only) |  |  |  |
| :--- | :--- | :--- | :--- |
| Early admission <br> student | Top quarter of high school class; solid B average; be <br> on target to meet Texas Education Code, Sections <br> $51.801-51.809$ requirements; letters from school <br> counselor or principal recommending early admission, <br> and from parents or guardians concurring with <br> intention; interview in admissions office. | Yes: Through junior year. <br> Transcript must reflect <br> completion of 3 units of <br> English and 3 units each of <br> solid mathematics, social <br> science and natural <br> science. | Minimum 1180 SAT (combined <br> critical reading/verbal + math) or 26 <br> ACT. |

## Notes for admissions chart

* All freshman applicants to the University of North Texas must submit SAT or ACT scores. Applicants in the top 10 percent not scoring at least 950 SAT (combined critical reading/verbal + math) or 20 ACT and all applicants admitted by individual review, regardless of rank in class or test scores, will be required to participate in success programs as may be recommended.
High school seniors who plan to attend UNT should take entrance examinations at least five months before enrollment dates. See high school counselor for more information or visit: the College Board, http://sat.collegeboard.org; or ACT, www.actstudent.org. (The UNT institutional codes for score reporting purposes are SAT, 6481; ACT 4136.)

1 UNT applicants should take entrance exams at least five months before admission deadline. See high school counselor for information. The writing section of the SAT or ACT is a requirement for admission to UNT.
${ }^{2}$ A transient student is an undergraduate student who enrolls at UNT for one long semester only (fall or spring). A summer visiting student is an undergraduate student who enrolls at UNT for one or more summer terms with the intent of returning to the home institution upon completion of summer studies. If a transient (or summer visiting) student decides to continue at UNT after the first semester, the student must apply as a transfer student and meet all normal admission requirements. Because of federal laws and immigration requirements, international students are not eligible to enroll at UNT as transient students. (Summer visiting students must reapply each summer that enrollment is sought.)

3 Beginning freshmen must have completed the distinguished level of achievement under the Foundation, Recommended or Advanced High School program as outlined under Texas Education Code 28.025, or higher diploma in order to be eligible for admission to a public university in Texas.

## Texas uniform admission policy (SB 3826)

Per the Texas Education Code, Sections 51.801-51.809, in addition to a Texas general academic teaching institution's admissions requirements, a first-time freshman, regardless of when the student graduated from high school, must also have met one of the following:

1. Successfully completed the distinguished level of achievement under the Foundation, Recommended, or Advanced High School program from a Texas public high school as outlined under Texas Education Code, 28.025, as well as 19 TAC 74.63, 74.64, 74.73, and 74.74;
2. Successfully completed a curriculum from a high school in Texas other than a public high school that is equivalent in content and rigor to the distinguished level of achievement under the Foundation, the Recommended, or the Advanced High School program;
3. Satisfied ACT's College Readiness Benchmarks on the ACT assessment; (NOTE: the ACT College Readiness Benchmarks are English=18, Math=22, Social Sciences=21, Science=24); or
4. Earned on the SAT assessment a score of at least a 1500 out of 2400 , or the equivalent (SAT scoring is scheduled to change in 2015 based on current College Board information).
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.

For the student graduating from an out-of-state or international high school, the necessary curriculum information will be provided by completing the appropriate form found on the THECB web site: www.thecb.state.tx.us/uap.

- Form 1 - Texas Private High School Certification Form, for students who did not complete Integrated Physics and Chemistry prior to 2010-2011
- Form 2 - Texas Private High School Certification Form, for students who completed Integrated Physics and Chemistry prior to 20102011
- Form 3 - Texas Private High School Certification Form, for students graduating under the Foundation High School program in 20142015 or later
Forms can be obtained from the Texas Higher Education Coordinating Board web site (www.thecb.state.tx.us/uap).
Applicants meeting the curriculum or the ACT/SAT assessment score requirements mandated by the Texas Education Code, but not meeting UNT's admission requirements, may be reviewed individually by the Office of Undergraduate Admission. Students must meet requirements as outlined by TEC Sections 51.801-51.809 or via the appropriate documentation using the appropriate form in order to be considered for admission at UNT.


## Early admission

On an individual basis, UNT may admit high school students to the freshman class after completion of the junior year of high school. To be considered, students must:

1. be ranked in the top quarter of their class;
have a strong $B$ average;
2. have completed 3 units of English and 3 units each of solid mathematics, social science and natural science;
3. present minimum combined SAT (combined critical reading/verbal + math) score of 1180 or ACT composite of 26 ;
4. submit letters from high school counselor or principal recommending early admission;
5. submit a letter from parents or guardians stating they approve of early admission; and
6. arrange an interview in the Office of Admissions.

Under this program, high school seniors may be enrolled concurrently at UNT through coordination with the UNT Executive Director of Admissions and the high school.

## Texas Success Initiative

See "Texas Success Initiative" in the Academics section of this catalog for additional information.

The Texas Success Initiative (TSI) is a state statute requiring all undergraduate students entering a Texas public institution of higher education to demonstrate readiness for college-level reading, writing and mathematics before enrolling in college-level course work. Students may demonstrate college readiness by achieving the statutory threshold(s) on the state-approved readiness assessments, unless they are exempt (see the Academics section of this catalog for exemption information). Students must satisfy all TSI requirements before receiving a baccalaureate degree.

UNT accepts scores on the ACCUPLACER, ASSET, COMPASS or THEA tests for assessment purposes. These state-approved tests measure college-level readiness in reading, mathematics and writing. Minimum score thresholds required to demonstrate college readiness in each subject are as follows:

|  | Reading | Math | Writing |
| :--- | :--- | :--- | :--- |
| ACCUPLACER | 78 | 63 | 80 objective with 5 essay or 6 essay only |
| ASSET | 41 | 38 | 40 objective with 5 essay or 6 essay only |
| COMPASS | 81 | 39 | 59 objective with 5 essay or 6 essay only |
| THEA | 230 | 230 | 220 |
| TSI Assessment* | 351 | 350 | 363 objective with 4 essay or 5 essay only |

*Beginning on the first class day of the fall 2013 semester (August 28, 2013) we will no longer be able to accept Accuplacer, ASSET, COMPASS or THEA scores for TSI purposes. Beginning on the first day of class for fall 2013, the new TSI Assessment will be the single statewide college-readiness assessment.

Students shall participate in a developmental program for each semester of enrollment for those subjects where readiness has not been demonstrated. Students may demonstrate readiness by either passing the highest level of indicated developmental course work or by scoring above statutory thresholds on one of the approved tests.

College readiness testing is not used in admission decisions at UNT. UNT must, however, have the results of a readiness assessment before Orientation and preregistration. For more information, visit www.start-office.unt.edu or contact the Student Academic Readiness Team (START) office at 940-565-4403 or academic.readiness@unt.edu.

## Texas Academy of Mathematics and Science students

The Texas Academy of Mathematics and Science (TAMS) is an early admission residential program for accelerated study designed to attract high-achieving high school age students to the science and mathematics fields. Beginning the program no later than the junior year in high school, academy students are enrolled as regular college students and earn two years of college credit. Students selected for this program are admitted solely to attend the academy. Admission to the academy is based on the student's commitment to complete the two-year program. Eligibility for enrollment in university courses is contingent upon continued enrollment at the academy.

Until the TAMS class with which the student originally entered has completed the two-year program, enrollment at UNT (outside of the academy curriculum) will be considered only if all published UNT Early Admission program requirements and procedures are met. This includes successful completion of first-year TAMS studies and a letter of recommendation from the academy dean. Should a student leave the program for any reason and achieve high school graduation, the standard UNT admission process would apply. Applicable freshman and/or transfer requirements for regular admission would need to be satisfied.

For additional information, contact the TAMS Office of Admissions at 800-241-TAMS, or by e-mail at tamsadmissions@unt.edu.

## Eagle Bound Program (Admissions Partnership Agreement)

The University of North Texas has an admissions partnership, called the Eagle Bound Program, with 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 Eagle Bound Program allows students who meet UNT admission requirements to establish an 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 periodic review.

## Academic fresh start for admissions decisions

Section 51.931 of the Texas Education Code allows students who were enrolled in a post-secondary institution 10 or more years ago to seek admission to UNT without consideration of that academic work.

To take advantage of this option, you must request it prior to your first enrollment at UNT. You must report and submit all of your college transcripts with your application for admission. You must also complete and submit a Fresh Start request form. Hours excluded under the Fresh Start option may still be used to claim exemption from the Texas Success Initiative.

Contact the Office of Admissions for more information at 940-565-2681, 800-868-8211, Dallas-Fort Worth Metro 817-267-3731, or online at Ask UNT (www.unt.edu/AskUNT).

## Transfer students

A transfer student is defined as any student new to UNT who has been enrolled at another college or university or has earned college credit after high school graduation prior to attendance at UNT.

Applicants must submit records of all institutions attended, even if they do not wish to transfer the credit to UNT.
Transfer students with fewer than 30 transferable semester hours of college work must:

- meet the entrance requirements listed above for high school graduates;
- have a minimum 2.5 GPA on a 4.0 grading system;
- be eligible to return to any institution attended; and
- provide an official transcript from each college or university attended.

Transfer students with no less than 30 and no more than 44 transferable semester hours must:

- have a minimum GPA of 2.25 on a 4.0 grading system;
- submit application for admission;
- provide an official transcript from each college or university attended; and
- be eligible to return to any institution attended.

Transfer students with more than 44 hours of college work must:

- have a minimum GPA of 2.0 on a 4.0 grading system;
- submit application for admission;
- provide an official transcript from each college or university attended; and
- be eligible to return to any institution attended.

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

The University of North Texas is a selective university and does not guarantee admission of all applicants. It is recommended that students apply well in advance of stated application deadlines.

The admissions office determines acceptable transfer credit from other institutions. The student's academic dean determines applicability of the credit to a degree program.

If UNT does not accept lower-division course credit earned by a student at another Texas public institution of higher education, UNT shall give written notice to the student and the other institution that the transfer of the course credit is denied. UNT shall also provide written notice of the reason for denying credit for a particular course or set of courses at the request of the other institution.

A student may dispute the denial of credit by contacting a designated official at either UNT or the other institution.
The two institutions and the student shall attempt to resolve the transfer of the course credit in accordance with Texas Higher Education Coordinating Board rules and/or guidelines. If the transfer dispute is not resolved to the satisfaction of the student or the institution at which the credit was earned within 45 days after the date the student receives written notice of the denial, UNT shall notify the commissioner of the Texas Higher Education Coordinating Board of its denial and the reason for the denial.

The commissioner of higher education or the commissioner's designee shall make the final determination about a dispute concerning the transfer of course credit and give written notice of the determination to the involved student and institutions.

The Texas Higher Education Coordinating Board shall collect data on the types of transfer disputes that are reported and the disposition of each case that is considered by the commissioner or the commissioner's designee.

If UNT has cause to believe that a course being presented by a student for transfer from another school is not of an acceptable level of quality, UNT will first contact the other institution and attempt to resolve the problem. In the event that the two institutions are unable to come to a satisfactory resolution, UNT may notify the commissioner of higher education, who may investigate the course. If its quality is found to be unacceptable, the Texas Higher Education Coordinating Board may discontinue funding for the course.

Transfer credit is subject to audit during a student's academic career at UNT. Total hours accepted may be increased or decreased to reflect correction of prior evaluation or consideration of additional transfer work to ensure compliance with UNT academic policies.

## Texas community college transfer students

Prior to transferring to UNT from a Texas community college, students should discuss the UNT Course Equivalency Guide and the degree audit information contained in the UNT Undergraduate Catalog with their community college academic advisor/counselor.

Students are encouraged to plan all course selections at the community college as far in advance as possible. Proper planning and use of the UNT Course Equivalency Guide and the UNT degree audit information will maximize the transfer of credit to UNT.

The university participates in the Texas Common Course Numbering System (TCCNS) to facilitate the transfer of credits, and lists most community college and area four-year institution course equivalency information in its Transferology System at
www.transferology.com/school/unt. Transferology allows students to create user accounts to store completed course work and to run UNT majorspecific planning guides. Transfer guides using the TCCNS courses are available for each major on the Registrar's web site at registrar.unt.edu/transfer-guides.

For additional information regarding transfer evaluation information, contact the Office of Admissions.

## 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 at registrar.unt.edu/transfer-guides, where you can find information on the online transfer course equivalency tool Transferology.

## Choice of catalog

Any student transferring directly from a Texas public community college to UNT shall have the same choice of catalog designating degree requirements as the student would have had if the dates of attendance at the university had been the same as the dates of attendance at the community college. See "Graduation Under a Particular Catalog" in the Academics section of this catalog.

## Advanced-hour credit

A lower-level course that is determined to be equivalent to a UNT upper-level course does not satisfy the requirement of advanced hours.

## Texas Common Course Numbering System

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.

## Transfer hours

Students who complete work at another institution to be applied toward a bachelor's degree at the University of North Texas should make sure that the appropriate officer of the other institution furnishes to the Office of Admissions at the University of North Texas a complete official transcript of such work.

The Admissions Office determines acceptable transfer credit from other institutions based on evaluation of course content as described in the catalogs of those institutions and in consultation with appropriate academic units at UNT as necessary for clarification. Transfer credit may only be received for course work completed at an accredited institution of higher education. Transfer credit from other 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. The student's academic dean determines applicability of the credit to a degree program. Students seeking the Bachelor of Applied Arts and Sciences (BAAS) should refer to the special provisions of the respective BAAS degree programs.

Students who have begun resident work at UNT and who have attained junior standing may, only with the prior written approval of their academic dean, enroll in and transfer hours from approved two-year colleges.

Transfer credit is subject to audit during a student's academic career at UNT. Total hours accepted may be increased or decreased to reflect correction of prior evaluation or consideration of additional transfer work to ensure compliance with UNT academic policies.

## Admission by individual review for freshmen or transfer students

Freshman applicants or transfer applicants who have fewer than 30 transferable hours or who rank in the fourth quartile of their high school graduating class, or any applicants who do not meet the requirements in either the freshman automatic or regular admissions categories, or
transfer requirements, will have their applications reviewed by a UNT admissions officer and may be given the opportunity to provide additional information to justify their admission to the university.

Upon review of the application file, the admission officer will forward a letter to the student stating the options for possible admission to UNT. These options may include:

- $\quad$ submitting new entrance exam scores (SAT Reasoning Test or ACT);
- attending a community college and completing 30 or more college level hours with a minimum 2.25 GPA;
- duplicating college-level work in which the student received a D or F to improve college GPA;
- submitting three letters of recommendation* and an essay (personal statement) addressing the student's education and career goals. Students should carry out the suggested option for the best possibility of admission into UNT.

Appropriateness of experience in lieu of academic credentials (i.e., GED, home schooling, graduation from an unaccredited high school) will also be assessed on an individual review basis.

Factors that may assist in determining academic readiness under the individual review provision may include, but are not limited to, the following:

- high school attended
- first-generation college attendance
- employment experience
- special abilities such as bilingual proficiency and meeting family responsibilities
- individual achievements
- leadership activities
- public service
- extra-curricular activities

Consideration for admission by individual review can occur only if the applicant has submitted all required credentials, letters of recommendation*, essay, etc., and, if required, scheduled an interview with an admissions officer prior to the published deadline for admission application.

New UNT students who have fewer than 30 hours of transfer credit, excluding non-traditional credit, who are admitted via individual review and have less than a 2.0 grade point average will be placed on academic alert.

Other transfer students with 30 or more hours of transfer credit who are admitted via individual review are placed automatically on academic probation if their transfer cumulative grade point average is below 2.0. See "Transfer Student" in this section for a statement of the current minimum entrance requirements for transfer students. To avoid academic suspension, transfer students admitted on academic probation must make a grade point average equal or exceeding the minimum for the appropriate classification as shown in the Table of Minimum Academic Requirements. See the Academics section of this catalog.

A limited number of admissions may be granted to students who do not satisfy the admission standards but who have demonstrated some exceptional talent. These students must have the approval of the Vice President for Enrollment or a designee of the Vice President.

For more information, contact the Office of Admissions.
*Letters of Recommendation: Beginning freshmen who are pursuing admission by individual review should submit letters of recommendation from their high school counselor and two of their teachers. Transfer students who are pursuing admission by individual review should request letters of recommendation from two of their college instructors and their college academic advisor. All letters should address the student's academic ability and preparedness for university-level study.

## Transient and summer visiting students

Undergraduate students who have been enrolled at another college or university previously may attend UNT as transient students for one long fall or spring term only, provided their intent is to return to their previous college or university. A summer visiting student is an undergraduate student (U.S. citizen or permanent resident alien) who enrolls at UNT for any summer session/term with the intent of returning to the home institution upon completion of summer studies. An official transcript from all colleges or universities attended must be submitted with the application for admission and the application fee prior to the application deadline. The transcript must reflect that the student is not on academic probation or suspension from the last institution attended to be admitted as a transient or summer visiting student.

If a transient or summer visiting student later decides to continue at UNT, the transient or summer visiting status ends and all admission requirements for a beginning transfer student (see "Transfer Students" above) must be met prior to the second enrollment at UNT. All students previously admitted as a transient or summer visitor must first contact the Office of Admissions for clearance to re-enroll. If a student originally applies as a regular transfer student and is academically rejected for admission, the student cannot change application status to transient or summer visiting.

UNT Dallas students benefit from a special program that allows for dual enrollment at both UNT and UNT Dallas called the "UNT - UNT Dallas Affiliate Program." The Affiliate program is a partnership between UNT and UNT Dallas that allows students the opportunity to take courses at UNT and UNT Dallas. UNT Dallas students must complete an admissions application through www.applytexas.org in order to take courses at UNT. For more information about the UNT - UNT Dallas Affiliate Program, visit www.untsystem.edu/independence/Dual-Enrollment.htm.

Based on federal laws and immigration requirements, some international students are not eligible to enroll at UNT as transient or summer visiting students. For eligibility requirements, check with the Office of Admissions.

See "Orientation" in this section for additional 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, and return 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 UNT-International, 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.

## Inactive continuing students (undergraduate students only)

Students who are U.S. citizens or permanent residents and who have previously attended UNT but who have not attended at least once during the 12 consecutive months prior to the term/semester of planned enrollment and who have not received a degree during that time period, must complete the following requirements to re-enroll:

- complete the ApplyTexas Application for Former Students found at www.applytexas.org;
- submit transcripts from all colleges attended, if any, since leaving UNT;
- if previous UNT enrollment was as a transient, dual credit, summer visiting student or special student, an admissions application and all academic credentials are required prior to re-enrollment; and
- inactive students who have not enrolled elsewhere since leaving UNT and who are in good academic standing are required only to complete the Apply-Texas Application for Former Students found at www.applytexas.org.
International students should contact the Office of Admissions for more details.


## 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 contact the Toulouse Graduate School. 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 (www.gradschool.unt.edu), specific admission requirements to graduate degree programs and descriptions of graduate courses are printed in the Graduate Catalog.

## International students

Applicants who do not hold either U.S. citizenship or U.S. permanent resident alien status should apply as an International Student.

## Application deadlines

Undergraduate: Submit all documents at least six months before enrollment date.

Graduate: Submit all documents at least six months before enrollment date. Some departments have much earlier application deadlines.

Check application deadlines with your department (www.unt.edu/majors-catalogs.htm).

## Three types of admission

1. Direct UNT admission

Undergraduate: With proof of English language proficiency. (See "English Language Proficiency Measure" chart.)

Graduate: With proof of English language proficiency (See "English Language Proficiency Measure" chart.) and all other departmental requirements (www.unt.edu/majors-catalogs.htm).
2. Conditional UNT admission
a. UNT Undergraduate and Intensive English Language Institute (IELI).
b. UNT Graduate and Intensive English Language Institute (IELI).
3. English language study only

UNT's Intensive English Language Institute (IELI).

## English language proficiency measure

## Proficiency measure

## English language study at UNT

Completion of the Intensive English Language Institute (IELI) Graduation from Level 6

## English language proficiency tests

## CAE (Certificate in Advanced English)

B or higher
www.cambridgeesol.org/exams

CPE (Certificate of Proficiency in English)
C or higher
www.cambridgeesol.org/exams

IELTS-Academic (International English Language)
Overall band 6.5 or higher
www.ielts.org

TOEFL (Test of English as a Foreign Language)
Computer-Based Test: 213
www.ets.org
Internet-Based Test (IBT):79

Score must be less than 2 years old unless the student has been continuously studying at a
U.S. college/university.

| GCE, GCSE, IGCSE (except Sri Lanka) | C or higher in English Language |
| :--- | ---: |
| www.cie.org.uk | B or higher in English Language |
| WASC, KCSE, SSCE | 500 or higher on both Reading and Writing |
| sections |  |
| SAT Critical Reading and Writing |  |
| MELAB-Official version (Michigan English Language Assessment Battery) | 80 or higher |
| Www.lsa.umich.edu/eli/testing/melab |  |

[^0]
## Courses/degrees/diplomas

High school (at least 3 years), Associate's, Bachelor's, Master's or Doctoral Degree earned in the U.S. or other English speaking countries:

Graduation with a degree

Anguilla, Antigua/Barbuda, Australia, Bahamas, Barbados, Belize, Bermuda, British Guyana, Canada (except Quebec), Cayman Islands, Dominica, Falkland Islands, Grenada, Guam, Guyana, Ireland, Jamaica/other West Indies, Liberia, Montserrat, New Zealand, South Africa, St. Helena, St. Kitts and Nevis, St. Lucia, St. Vincent, Trinidad and Tobago, Turks and Caicos, United Kingdom and Virgin Islands.

IB (International Baccalaureate)
Grade 5 or higher
www.ibo.org

English Composition I and II passed at a U.S. institution, which counts as transfer credit at UNT (not ESL courses)

## Application

Applications are available online at www.applytexas.org.

## Application fee

The non-refundable application fee must be received for the admission processing to begin.

Direct UNT Admission-undergraduate \$85

Conditional UNT Admission-undergraduate \$160
English language study only-IELI only: \$75

## Send all application forms and documents to:

UNT Admissions
University of North Texas
1155 Union Circle \#311277
Eagle Student Services Center, Room 305
Denton, Texas 76203-5017 U.S.A.

E-mail: international@unt.edu
Telephone: 940-565-2442
Fax: 940-565-2408

## Texas Success Initiative requirement and remediation for non-native English speakers

The Texas Success Initiative (TSI) is a state statute requiring all undergraduate students - including international students, permanent residents, and/or citizens - entering a Texas public institution of higher education to demonstrate readiness for college-level reading, writing and mathematics before enrolling in college-level course work. Students may demonstrate college readiness by achieving the statutory threshold(s) on the state-approved readiness assessments, unless they are exempt (see the Academics section of this catalog for exemption information). Students must satisfy all TSI requirements before receiving a baccalaureate degree.

UNT accepts scores on the ACCUPLACER, ASSET, COMPASS or THEA tests for assessment purposes. These state-approved tests measure college-level readiness in reading, mathematics and writing. Minimum score thresholds required to demonstrate college readiness in each subject are as follows:

|  | Reading | Math | Writing |
| :--- | :--- | :--- | :--- |
| ACCUPLACER | 78 | 63 | 80 objective with 5 essay or 6 essay only |
| ASSET | 41 | 38 | 40 objective with 5 essay or 6 essay only |
| COMPASS | 81 | 39 | 59 objective with 5 essay or 6 essay only |
| THEA | 230 | 230 | 220 |

Students shall participate in a developmental program for each semester of enrollment for those subjects where readiness has not been demonstrated. Students may demonstrate readiness by either passing the highest level of indicated developmental course work or by scoring above statutory thresholds on one of the approved tests.

The following procedures apply to TSI-related developmental course work.

1. All developmental education students must meet with a START advisor prior to registration.
2. Students must participate in a developmental program each semester of enrollment until they are TSI complete. Courses not successfully completed will be repeated.
3. Students must show readiness for college-level writing before registering for college-level courses in English.
4. Regular attendance is required in all developmental courses. Instructors will monitor course attendance, and advisors will follow up on absences.

## International student admission requirements

All students who are not U.S. citizens or U.S. permanent residents are considered international students at the University of North Texas and must meet the following admission requirements, plus all additional departmental requirements.

Students must provide to UNT an International Student Statement of Finances showing the required financial resources before UNT can send the student an I-20 or DS2019 to use to apply for an F-1 or J-1 visa. Information is available at admissions.unt.edu/international.

Online:

UNT application: www.applytexas.org
IELI application: international.unt.edu/admissions-application-form

| Classification | Prerequisites | Official transcripts | Entrance and/or language proficiency exams |
| :---: | :---: | :---: | :---: |
| Intensive English Language Institute |  |  |  |
| IELI student | Graduation from high school recognized by the home country ministry of education | Copy of diploma/certificate | Placement test at IELI to determine current English language proficiency |
| Freshman / first-year students |  |  |  |
| Beginning freshman from an international high school | Graduation from a high school recognized by the home country ministry of education | Official transcripts in native language and English showing all courses and marks of final three years of secondary school plus graduation date | Show English language proficiency. For a complete list of ways to demonstrate proficiency, see "English Language Proficiency Measure" chart or www.international.unt.edu/offices/admissions/how-to-apply/general/english |
| Beginning freshman from a U.S. high school | Minimum of three years and graduation from an accredited high school in the U.S. | Official transcripts, showing rank in class through at least junior year | U.S. high school graduates only: Send SAT or ACT scores |
| Transfer students (Transfer credit may be audited with an increase/decrease in transferred credit.) |  |  |  |
| Transfer freshman with fewer than 30 transferable college or university hours/credits | Graduation from an accredited high school; minimum college 2.5 GPA (4.0 system); must be eligible to return to last institution attended | Official transcripts (in native language and English) from high school and each college or university attended | Show English language proficiency (as above) |
| Transfer student with 30-44 transferable college or university hours/credits | Minimum 2.25 GPA (4.0 system); must be eligible to return to last institution attended | Official transcripts (in native language and English) from each college or university attended | Show English language proficiency (as above) |
| Transfer student with 45 or more transferable college or university hours/credits | Minimum 2.0 GPA (4.0 system); must be eligible to return to last institution attended | Official transcripts (in native language and English) from each college or university attended | Show English language proficiency (as above) |
| Former UNT student | If not in good academic standing when leaving UNT, must have earned a higher GPA in all schools subsequently attended; must be eligible to return to UNT | Official transcripts (in native language and English) from each college or university attended since leaving UNT; must be eligible to return to all institutions attended | Show English language proficiency (as above) |

## Adult admission program

Freshman applicants who have been out of high school for at least five years and who have earned fewer than 30 semester hours at a college or university may be eligible for admission to UNT under the Adult Admission Program.

Individuals eligible for this program may be accepted without the required SAT or ACT test scores only if evidence provided to the admissions office staff suggests the potential of academic success for the individual.

Applicants under the Adult Admission Program must submit

- an application for admission, which can be completed online at www.applytexas.org;
- a non-refundable $\$ 75$ application fee;
- an official copy of all high school transcripts;
- official transcripts of any previous college/university work (students who are transferring fewer than 30 hours from another college/university also must have a minimum 2.5 grade point average [ 4.0 grading system] and be eligible to return to any institution attended);
- a written personal statement concerning your academic preparedness for university-level study, your intended major and career goals, and any other information you feel is pertinent to the individual review of your application; and
- the Adult Admission Program Request Form.

A personal interview with the prospective student may also be required at the discretion of the reviewer (see "Admission by Individual Review for Freshmen or Transfer Students"). The purpose of the interview is to allow the committee to gain additional information relevant to the admission decision. The Admissions Office will reach out to the student if it is determined that the interview is required.

Students who are admitted under the provisions of the Adult Admission Program are subject to all other academic and programmatic requirements of the university.

Prospective students interested in the Adult Admission Program are encouraged to contact the Office of Admissions for further information or to request adult admission consideration.

## Admission or re-enrollment as related to personal conduct and admission falsification

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

## Orientation

All accepted undergraduate students new to UNT are required to attend an orientation session prior to registration for classes. For freshmen, orientation is a 3-day experience designed to help students and families become acclimated to the university. For transfer students, orientation is a 1-day experience with the same goal.

New freshman students entering in the fall term/semester are invited to attend one of the Freshman Orientation sessions where they receive academic advising and assistance with class scheduling and have the opportunity to interact with their peers. These sessions are conducted during June, July and August. Orientation includes campus life sessions, a resource and organization fair, placement testing, academic advising, registration (web registration) for classes and completion of the tuition and fee payment process. Generally, eight orientation sessions are planned for new freshmen. A fee is charged for room, meals and administrative costs.

Transfer students have a couple of options. They can choose to attend one of at least eight one-day Transfer Drive-In Orientation sessions or Eagle Experience (a longer two-day new student session for students transferring with 30 or fewer hours). Each session focuses on meeting with an advisor, registering for classes and learning about campus resources.

Orientations are also held each January for students beginning in the spring semester and throughout the summer for those students beginning classes during a summer term.

All new undergraduate students receive orientation information following acceptance notification.

Questions regarding Orientation should be directed to the Orientation and Transition Programs office at 940-565-4198 in the University Union, Suite 377 or visit www. unt.edu/orientation.

In addition to New Student Orientation, new international students are required to attend an orientation conducted by the International Welcome Center.

## Advanced placement and credit by examination

UNT awards undergraduate college credit on the basis of local and national examinations, subject to general limitations. This also includes military service credit and classroom instruction offered through the non-academic institutions approved by the American Council on Education. Such credit is not included in determining grade point averages and has the following additional restrictions:

1. may not be used to reduce the general degree requirement of completing a minimum of 30 semester hours in residence on the UNT campus;
2. may not be used to reduce the general degree requirement of completing at least 24 semester hours of advanced work at UNT;
3. may not be used to reduce the general degree requirement of completing at least 12 advanced hours in the major at UNT;
4. may not be earned in any course the student has previously completed at any university; and
5. may not be earned in any course prerequisite to another course in the same subject for which the student has previously earned credit. UNT recognizes exam credit in transfer from other accredited institutions within the limits outlined above. Scores from exam credits accepted in transfer are not re-evaluated by UNT. Credit by examination cannot be substituted for any grade, including an F earned for a course in high school, at UNT or at another college or university. The credit earned through examination will not be included in the grade point average at UNT, but it will be included in accepted semester credit hours and on the UNT transcript.

Credit and advanced placement may be granted only in accordance with policy and procedures in operation at UNT. Departments that honor the CLEP Subject Examinations, the College Board Advanced Placement Examinations or other instruments for granting advanced placement set departmental standards for their use. Policies for awarding credit are reviewed periodically and are subject to change.

## 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.

Visit www.unt.edu/credit for updated information.

| AP Examination | AP Exam score | Semester credit hours | UNT course equivalent |
| :---: | :---: | :---: | :---: |
| Composition and Literature |  |  |  |
| English Language and Composition | $3 \text { or } 4$ $5$ | $\begin{aligned} & 3 \\ & 6 \end{aligned}$ | ENGL 1310 ENGL 1310, ENGL 1320 |
| English Literature and Composition | 3,4 or 5 | 3 | ENGL 2210 |
| Fine Arts |  |  |  |
| Art History | $3$ <br> 4 <br> 5 | $\begin{aligned} & 3 \\ & 3 \\ & 6 \end{aligned}$ | ART 1200 ART 2350 ART 2350, ART 2360 |
| Studio Art - Drawing Portfolio | $\begin{gathered} 3 \\ 4 \text { or } 5 \end{gathered}$ | $\begin{aligned} & 3 \\ & 3 \end{aligned}$ | Lower-division art elective <br> ART 1500 |
| Studio Art - 2D Design | 3,4 or 5 | 3 | Lower-division art elective |
| Studio Art - 3D Design | 3 | 3 | Lower-division art elective |


|  | 4 or 5 | 3 | ART 1450 |
| :---: | :---: | :---: | :---: |
| Languages |  |  |  |
| Chinese Language | $3$ <br> 4 <br> 5 | 6 <br> 9 <br> 12 | CHIN 1010, CHIN 1020 CHIN 1010, CHIN 1020, CHIN 2040 CHIN 1010, CHIN 1020, CHIN 2040, CHIN 2050 |
| French Language | 3 <br> 4 <br> 5 | 6 <br> 9 <br> 12 | FREN 1010, FREN 1020 FREN 1010, FREN 1020, FREN 2040 FREN 1010, FREN 1020, FREN 2040, FREN 2050 |
| German Language | $3$ <br> 4 5 | 6 <br> 9 <br> 12 | GERM 1010, GERM 1020 GERM 1010, GERM 1020, GERM 2040 GERM 1010, GERM 1020, GERM 2040, GERM 2050 |
| Italian Language | $3$ <br> 4 $5$ | 6 <br> 9 $12$ | ITAL 1010, ITAL 1020 <br> ITAL 1010, ITAL 1020, ITAL 2040 <br> ITAL 1010, ITAL 1020, ITAL 2040, ITAL 2050 |
| Japanese Language | $3$ <br> 4 <br> 5 | 6 <br> 9 <br> 12 | JAPN 1010, JAPN 1020 JAPN 1010, JAPN 1020, JAPN 2040 JAPN 1010, JAPN 1020, JAPN 2040, JAPN 2050 |
| Latin - Vergil | $3$ <br> 4 <br> 5 | 6 <br> 9 <br> 12 | LATI 1010, LATI 1020 LATI 1010, LATI 1020, LATI 2040 LATI 1010, LATI 1020, LATI 2040, LATI 2050 |
| Spanish Language | 3 <br> 4 <br> 5 | 6 <br> 9 <br> 12 | SPAN 1010, SPAN 1020 <br> SPAN 1010, SPAN 1020, SPAN 2040 <br> SPAN 1010, SPAN 1020, SPAN 2040, SPAN 2050 |
| 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 |
| Statistics | 3,4 or 5 | 3 | MATH 1680 |
| Natural and Computer Sciences |  |  |  |


| Biology | $\begin{gathered} 3 \\ 4 \text { or } 5 \end{gathered}$ | 6 8 | BIOL 1112, BIOL 1122 <br> BIOL 1710, BIOL 1720, BIOL 1760 |
| :---: | :---: | :---: | :---: |
| Chemistry | $3$ <br> 4 <br> 5 | 3 4 8 | CHEM 1360 CHEM 1410/CHEM 1430 CHEM 1410/CHEM 1430, CHEM 1420/CHEM 1440 |
| Computer Science A | $\begin{gathered} 3 \\ 4 \text { or } 5 \end{gathered}$ | 3 4 | CSCE 1010 <br> 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 | $\begin{gathered} 3 \\ 4 \text { or } 5 \end{gathered}$ | 3 4 | PHYS 1210 <br> PHYS 1410/PHYS 1430 |
| Physics 2 | $\begin{gathered} 3 \\ 4 \text { or } 5 \end{gathered}$ | 3 4 | PHYS 1315 <br> PHYS 1420/PHYS 1440 |
| Physics C (Electricity and magnetism) | $\begin{gathered} 3 \\ 4 \text { or } 5 \end{gathered}$ | 4 4 | PHYS 1420/PHYS 1440 <br> PHYS 2220/PHYS 2240 |
| Physics C (Mechanics) | $\begin{gathered} 3 \\ 4 \text { or } 5 \end{gathered}$ | 4 4 | PHYS 1410/PHYS 1430 PHYS 1710/PHYS 1730 |
| Social Sciences and History |  |  |  |
| 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 1050 |
| 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.

## AP credit evaluation and notification

Entering freshmen who took the Advanced Placement (AP) Exam for credit (and who designated that 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 should consult their academic advisor about the application of their AP credits. Students who have questions about the receipt of their AP scores should check with the Office of Admissions.

Former, continuing and transfer students who wish to have their AP test results applied to their UNT transcript must initiate this process through the Office of Admissions during their first term/semester enrolled at UNT. (Note: students who fail to initiate the process during their first term/semester at UNT may still be eligible to receive credit, but may be subject to the standards in place at the time of initiation, rather than those that were current when the test was taken.)

## College-Level Examination Program (CLEP)

UNT recognizes credit earned through College-Level Examinations of the College Board only if the credit is first certified by the Office of Admissions. The dean of the student's college or school at UNT has the option of applying CLEP credit to the student's degree audit.

## CLEP General Examinations

UNT does not grant credit on the basis of College Board CLEP General Examination scores.

## CLEP Subject Examinations

CLEP Subject Exams are scheduled throughout the year at participating colleges and universities. UNT certifies CLEP credit if the score meets or exceeds the recommended credit-granting score for that subject. Policies for granting CLEP credit are subject to change.

## Use of CLEP credit

A student may not earn examination credit for any course failed. All general regulations for credit by examination apply to CLEP credit.

## CLEP Subject Examination

## Languages

| College French, (two to four semesters, depending on score) | $6-12$ hours |
| :--- | :---: |
| College German, (two to four semesters, depending on score) | $6-12$ hours |
| College Spanish, (two to four semesters, depending on score) | $6-12$ hours |

## Mathematics

Calculus with Elementary Functions
6 hours

Pre-calculus
5 hours

College Algebra 3 hours

Trigonometry
3 hours

College Mathematics
3 hours

| Natural Science | 6 hours |
| :--- | :---: |
| General Biology | 6 hours |
| General Chemistry | 3 hours |
| Social Sciences and History | 3 hours |
| American Government | 3 hours |
| History of the United States I | 3 hours |
| History of the United States II | 3 hours |
| Human Growth and Development | 3 hours |
| Introduction to Educational Psychology | 3 hours |
| Introductory Psychology | 3 hours |
| Introductory Sociology | 3 hours |
| Principles of Macroeconomics | 3 hours |
| Principles of Microeconomics | 3 |

## SAT Subject Tests

UNT does not grant college credit on the basis of The College Board SAT Subject Test scores.

## 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 Office of Admissions. The student's academic dean decides if credit awarded for such courses will be applied toward requirements for the bachelor's degree.

## 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 admissions 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 <br> score | Hours | UNT equivalent |
| :--- | :---: | :---: | :--- |
| 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) |


| 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 | 5,6 or 7 | 12 | LANG 1010, LANG 1020, LANG 2040, LANG 2050 |
| Psychology | 5,6 or 7 | 3 | PSYC 1630 |
| Russian - Language B | 5,6 or 7 | 12 | RUSS 1010, RUSS 1020, RUSS 2040, RUSS 2050 |
| Spanish - Language B | 5,6 or 7 | 12 | SPAN 1010, SPAN 1020, SPAN 2040, SPAN 2050 |
| Swedish - Language B | 5,6 or 7 | 12 | LANG 1010, LANG 1020, LANG 2040, LANG 2050 |
| Theater Arts | 5,6 or 7 | 3 | Theatre elective |
| Visual Arts | 5,6 or 7 | 3 | Visual arts elective |

## Academics

## Definition of terms

## Academic status

This term is used as an indication of a student's academic standing with the university.

## Minimum CGPA requirement

This term refers to the minimum cumulative grade point average a student must achieve to remain in good academic standing. At the end of the first term of enrollment at UNT, the minimum CGPA requirement is 1.8. In each subsequent term of enrollment, the minimum CGPA requirement is 2.0.

## Good academic standing

This term refers to the academic status students maintain when achieving the minimum CGPA requirement after each term of enrollment at UNT.

## Academic alert

A freshman is placed on academic alert if the CGPA achieved for a term falls below the minimum CGPA requirement. To be removed from academic alert, the student must raise the CGPA to a minimum of 2.0 during the next period of enrollment. A student on academic alert who does not raise the 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, or a student who is a freshman and has been on academic alert, is placed on academic probation at the end of any enrollment period in which the CGPA drops below the minimum CGPA requirement.

## Academic suspension

A student who, during a probationary fall or spring term/semester, fails to raise the 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.

## 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.

Undergraduate classifications are: freshmen, those who have completed less than 30 semester hours of college credit; sophomores, 30 to 59 hours completed; juniors, 60 to 89 hours completed; seniors, 90 or more hours completed but who have not received a bachelor's degree. Graduate students are those who have graduated with a baccalaureate degree from an accredited college or university.

## Continuing students

Continuing students are those 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. Students who receive a degree and reapply to the university are considered new graduate students.

## Core complete

A student who transfers to UNT as core complete has successfully completed the common core curriculum at another state-assisted institution of higher education in Texas and will have satisfied the core curriculum at UNT.

## Inactive continuing students (undergraduate students only)

Inactive students are 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 are required to complete the following requirements to re-enroll:

1. complete the ApplyTexas Application for returning students;
2. submit transcripts from all colleges attended, if any, since leaving UNT; and
3. if previous UNT enrollment was as a transient, dual credit, summer visiting student or special student, all academic credentials from all institutions attended are required prior to re-enrollment; international students should contact the Office of International Admissions.
Readmission applicants who have attended any other institution of higher education since last enrollment at UNT must submit official transcripts prior to readmission. If transcripts are not received by this time, then an academic hold may be placed on the student's account preventing registration and receipt of an official UNT transcript.

The returning student application priority deadline for each semester is Monday prior to each registration period for a given term, and applications received by this date will receive priority during registration.

## Course numbering system

Freshman courses, 1000-1999.
Sophomore courses, 2000-2999.
Junior courses, 3000-3999.
Senior courses, 4000-4999.
Graduate courses, 5000 and above.

The graduate student enrolled in a 5000-level course that meets with a senior-level undergraduate course will be expected to complete additional requirements beyond those expected of undergraduates in the same course.

Courses 2900, 2910, 4900 and 4910, Special Problems, are used upon approval of the department chair or dean for individual instruction in any department to cover course content in special circumstances. Courses 5900, 5910, 5920 and 5930 are used in any department that offers graduate work; courses 6900 and 6910 are used in any department that offers doctoral work.

Experimental Courses (1980, 2980 and 4980) are new courses offered on a trial basis for 1-4 hours credit each. Registration is permitted only upon approval of the department chair.

Honors College Capstone Thesis, 4951, allows a student in the Honors College to complete an honors thesis as a course within the student's major. The Honors College Capstone Thesis is a major research project prepared by the student with the mentorship of a faculty member in the student's major department. An oral defense is required for successful completion of the thesis.

Advanced Courses (or upper-level or upper-division courses), numbered 3000 to 4999, are open to students who have 12 semester hours of credit in a given subject or who have the indicated prerequisites, and to those without the prerequisites who have the consent of the department. In some instances, college/school/departmental requirements may vary. Students should consult individual areas prior to enrolling in advanced courses.

## Cumulative grade point average

The cumulative grade point average (CGPA) upon which academic standards are based is calculated by dividing the total number of grade points earned in residence at UNT by the total number of semester credit hours (SCH) attempted in residence at UNT.

Not included in the definition of student classification for academic standards are hours granted by this university for extension courses, service experience, advanced placement, credit by examination, CLEP or transfer hours attempted but not passed.

Excluded from the calculation of the CGPA are all courses in which the student received grades of I, NP, NPR, P, PR, W or Z .

The cumulative grade point average as defined here is used only for determining a student's academic status and is not necessarily related to the grade point average that governs eligibility for graduation or graduating with honors.

## Degree plan

The degree plan is an official document prepared in the office of the student's academic dean. It lists all courses completed, courses not completed, proficiency examinations and all other requirements for a particular degree sought. A student should have a degree plan prepared no later than the beginning of the junior year. See also the entries for "Major," "Double Major" and "Minor," all in this section.

## Dual/joint degree programs

Dual degree programs are separate degree programs that have been approved to work together to allow students to pursue two degrees simultaneously. This may be done by using courses for the major from each degree toward the minor on the other degree or by other approved means.

Joint degree programs are separate degree programs at different institutions that have been approved to work together to offer one degree. This is made possible by sharing faculty and academic resources.

## Former students (graduated students only)

Former students are those 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.

## Grade point average

The overall grade point average is used to determine student class loads, eligibility for admission to the university and certain programs, and eligibility for graduation. All GPA calculations are subject to post-audit and correction by the Registrar's Office.

The 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, F and WF unless replaced by a later grade. Courses with grades of I, NP, NPR, P, PR, W or Z are not counted as courses attempted.

## Graduate academic certificates

The University of North Texas offers certificate programs for graduate credit at the post-baccalaureate and post-master's levels in areas of study designed to enhance existing bachelor's or master's degrees. Graduate academic certificates normally require $9-18$ hours of graduate-level course work (5000-and 6000-level courses). See the Graduate Catalog for additional information, including admission requirements. Disclosures: gradschool.unt.edu/certificatedisclosure.

## Major

At least 24 semester hours in a given subject are required for a major, including 12 hours of advanced work. The number of hours required depends on the department selected.

The term "professional field" is used in the College of Business to designate the major for the Bachelor of Business Administration (BBA) and the Master of Business Administration (MBA) degrees.

## Double major

A student seeking a double major must consult with an advisor from the second department. If approved, the requirements for the second major are incorporated into the student's degree audit.

## Minor

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

## Prerequisite

A prerequisite is a course or other preparation that must be completed before enrollment in another course. All prerequisites are included in catalog course descriptions.

## Schedule change (add/drop, withdrawal)

Students may make adjustments to their schedule by adding and/or dropping classes or by withdrawing from the university. Specific procedures must be followed in making these changes. 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 the university. Procedures and deadlines for dropping or withdrawing are available in the Dean of Students Office or online at deanofstudents.unt.edu/withdrawals.

## Semester hour

A semester hour is the unit of credit at UNT; the credit allows for 1 lecture hour a week for 15 weeks or the equivalent. In course listings, figures in parentheses following the course credit hours indicate the number of clock hours per week devoted to lecture and laboratory. When it appears, the third and final number in these parentheses indicates the number of recitation hours per week.

## Summer visiting student

A summer visiting student is an undergraduate student (U.S. citizen or permanent resident alien) who has been enrolled at another college or university and who enrolls at UNT for any summer session/term with the intent of returning to the home institution upon completion of summer studies. Summer visiting students must reapply each summer that enrollment is sought.

## Term/semester/session

The academic year includes three terms/semesters: fall, spring and summer. During the summer term, a number of sessions are scheduled. Presently the options include 3W1 (three week one), 5W1 and 5W2 (five week one and two), 8W1 (eight week one), 10W (ten week) and SUM (full summer term).

## Track

A track is a group of courses designed for students seeking specialized training toward specific career objectives or a group of courses designed to meet a specific need within a degree program.

At the UNT Health Science Center, concentrations under the major are referred to as tracks.

## Transient student

A transient student is an undergraduate student who has been enrolled at another college or university and who plans to attend UNT for one long term/semester only and then to return to the college or university where previously enrolled.

## Undergraduate academic certificates

The University of North Texas offers upper-division undergraduate academic certificates to meet workforce needs or to provide students with life/career skills and knowledge and to allow for specialization in academic disciplines. Undergraduate academic certificates require 12-20 hours, the majority of which must be advanced. See "Undergraduate Academic Certificate Programs" for additional details.

## Degrees offered

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)
Master of Arts (MA)
Master of Business Administration (MBA)
Master of Education (MEd)
Master of Fine Arts (MFA)
Master of Journalism (MJ)
Master of Music (MM)
Master of Music Education (MMEd)
Master of Public Administration (MPA)
Master of Science (MS)
Doctor of Audiology (AuD)
Doctor of Education (EdD)
Doctor of Musical Arts (DMA)
Doctor of Philosophy (PhD)

## Colleges and schools

The University of North Texas is organized into the following colleges and schools.
Honors College
The College of Arts and Sciences
The College of Business
The College of Education
The College of Engineering
The College of Information
The Frank W. and Sue Mayborn School of Journalism
The College of Merchandising, Hospitality and Tourism
The College of Music
The College of Public Affairs and Community Service
The College of Visual Arts and Design
The Toulouse Graduate School
These schools and colleges offer the degrees, majors, concentrations under majors, minors, certifications, and preprofessional programs listed under Programs. See individual areas in this catalog for information about undergraduate offerings. Information about advanced offerings may be found in the Graduate Catalog.

## General degree requirements

## Writing proficiency

UNT is committed to the discovery, acquisition, development, preservation and dissemination of knowledge and the enhancement of the intellectual, cultural and proficiency levels of all who enter its programs. Fulfilling this commitment will contribute to both a better society and a more rewarding pattern of individual life. As students endeavor to complete their academic studies, they are expected to exhibit good written English skills in all university course work as a consideration in grading.

## Graduation under a particular catalog

A student may meet the graduation requirements noted in the catalog in effect at the time of admission to UNT or the requirements in any later catalog published before the student's graduation.

Any student transferring directly from a Texas public community college to UNT shall have the same choice of catalog designating degree requirements as the student would have had if the dates of attendance at the university had been the same as the dates of attendance at the community college. Transfer students from senior institutions or out-of-state community colleges will use the catalog in effect at their date of enrollment at UNT.

All requirements of the chosen catalog must be met within eight years of that catalog's publication. This catalog will expire at the close of the 2024 summer semester/term.

Changes in either major or non-major requirements made necessary by altered or discontinued courses or by requirements imposed by external accrediting or certification agencies become effective for degree audit purposes at the beginning of the academic year immediately following the academic year in which the changes are published in the university catalog. The changes may include additions, deletions and other changes in prerequisite requirements for existing courses. Whenever possible, new requirements are implemented with a beginning class or upon the expiration of the appropriate time limit.

## Texas Success Initiative

The Texas Success Initiative (TSI) is a state statute requiring all undergraduate students who enter a Texas public institution of higher education to either demonstrate readiness for college-level reading, writing and mathematics before enrolling in college-level academic course work by achieving the statutory threshold(s) on the state-approved readiness assessments or meet one of the conditions for exemption from the testing requirement. Students must satisfy all TSI requirements before receiving a baccalaureate degree.

| Exemption | Reading | Writing | Math |
| :---: | :---: | :---: | :---: |
| ACT <br> (Score good for 5 years from date taken) | Composite 23 AND English 19 | Composite 23 <br> AND English 19 | Composite 23 AND English 19 |
| SAT (Taken prior to 3/5/2016) <br> (SAT Composite=critical reading plus math; score good for 5 years from date taken) | Composite 1070 AND Critical Reading/Verbal 500 | Composite 1070 AND Critical Reading/Verbal 500 | Composite 1070 AND Math 500 |
| Revised SAT (Taken 3/5/2016 and later) (Score good for 5 years from date taken) | Evidence Based Reading/Writing 480 | Evidence Based Reading/Writing 480 | Math 530 |
| TAKS <br> (Score good for 5 years from date taken) | ELA 2200 AND <br> Writing Essay score 3 | ELA 2200 AND <br> Writing Essay score 3 | Math 2200 |
| STAAR | End-of-course score of level 2 on English III | End-of-course score of level 2 English III | End-of-course score of level 2 on Algebra II |
| AP | 3-English Lang \& Comp <br> 3-History <br> 3-Govt. and Politics | 3-English Lang \& Comp 3-History | 3-Calculus <br> 3-Statistics |


| Exemption Reading <br>  There are many AP exam possibilities with the most common accepted listed here. If you have successfully <br> completed a different AP exam and would like for us to review your score for TSI exemption purposes, please send <br> us your score report. <br> Dual Credit/Previous  <br> College Credit Depending on what college-level course(s) you have already successfully completed, you may be exempt from <br> taking the TSI Assessment in one or more areas. A TSI Coordinator will evaluate your college/university <br> transcript(s) to determine if the courses you have successfully completed will qualify. <br> Straighterline and ALEKS are not accepted for TSI purposes. <br> Degree Holder You are exempt in all areas if you hold a domestic associate or baccalaureate degree from an accredited institution <br> of higher education. <br> Military You may be exempt if you are serving on active duty as a member of the armed forces of the U.S., the Texas <br> National Guard, or as a member of a reserve component of the armed forces of the U.S. and have been serving for <br> at least years preceding enrollment. <br> You may be exempt if you were honorably discharged, retired, or released from active duty as a member of the <br> armed forces of the U.S. or the Texas National Guard or served as a member of the armed forces of the U.S. <br> Previous TSI  <br> Exemption Often times, if you attended a previous college/university that has already determined you TSI complete, your <br> transcripts from that previous institution may indicate the same. |
| :--- |
| Yone of These Apply |

Union Circle \#305217, Denton, TX 76203-5017; sent via e-mail to academic.readiness@unt.edu; or sent via fax to 940-369-8394.

## Readiness assessment and course placement

UNT accepts scores on the ACCUPLACER, ASSET, COMPASS or THEA tests for assessment purposes. These state-approved tests measure college-level readiness in reading, mathematics and writing. Minimum score thresholds required to demonstrate college readiness in each subject area as follows:

|  | Reading | Math | Writing |
| :--- | :--- | :--- | :--- |
| ACCUPLACER | 78 | 63 | 80 objective with 5 essay or 6 essay only |
| ASSET | 41 | 38 | 40 objective with 5 essay or 6 essay only |
| COMPASS | 81 | 39 | 59 objective with 5 essay or 6 essay only |
| THEA | 230 | 230 | 220 |
| TSI Assessment* | 351 | 350 | 363 objective with 4 essay or 5 essay only |
| *Beginning on the first class |  |  |  |

*Beginning on the first class day of the fall 2013 semester (August 28, 2013) we will no longer be able to accept Accuplacer, ASSET, COMPASS or THEA scores for TSI purposes. Beginning on the first day of class for fall 2013, the new TSI Assessment will be the single statewide college-readiness assessment.

Students participate in a developmental program for each semester of enrollment for those subjects where readiness has not been demonstrated. Students may demonstrate readiness by either passing the highest level of indicated developmental course work (C or better) or by scoring above statutory thresholds on one of the approved tests.

Students are individually advised into the appropriate developmental program according to their developmental need. UNT offers course-based and non-course-based developmental programs. Developmental courses offered at UNT include:

## Reading

- TECM 1200 - Developmental Writing


## Writing

- TECM 1200 - Developmental Writing (3 credit hours)

Math

- MATH 1010 - Fundamentals of Algebra
- NCTM 331 - Integrated Pre/Beginning Algebra (5 credit hours)*
- NCTM 351 - Beginning Algebra (3 credit hours)*
*NCTM courses are held at UNT and taught by North Central Texas College staff. Advisors use the following guidelines for developmental math course placement:

|  | MATH 1010 | NCTM 351 | NCTM 331 |
| :--- | :--- | :--- | :--- |
| ACCUPLACER | $57-62$ | $50-56$ | $0-49$ |
| ASSET | $36-37$ | $34-35$ | $0-33$ |
| COMPASS | $34-38$ | $29-33$ | $0-28$ |
| THEA | $220-229$ | $219-220$ | $0-199$ |

565-4403; e-mail: academic.readiness@unt.edu).

All students below reading and/or writing thresholds are placed in TECM 1200. In addition to courses offered at UNT, students may meet their developmental program course needs through concurrent enrollment in equivalent course work at another institution of higher education. International students may meet their initial remedial needs through Intensive English Language Institute course work before enrolling at UNT full-time.

Non-course-based programs include workshops, tutorials and self-paced instruction. Advisors monitor student progress in their non-course-based programs through the semester

## Demonstrating college readiness

Students may demonstrate college readiness or otherwise satisfy TSI requirements by any of the following:

1. Successfully completing the highest level of the appropriate developmental course with a C or better.
2. Achieving a score above the statutory threshold on an approved readiness assessment.
3. Placing into college-level reading, math or writing according to UNT academic placement guidelines.

## Requirements of this catalog; University Core Curriculum

1. A minimum of 120 semester hours.
2. Completion of all requirements in the university core curriculum (42-hour minimum) (See "University Core Curriculum").
3. A major of at least 24 semester hours. At least 12 hours of advanced work ( $3000 / 4000$ level) in the major must be earned at UNT (except for the BAAS degree). See "Major" in the Academics section of this catalog.
4. A minor, if required for a particular undergraduate degree, of a minimum of 18 semester hours, including at least 6 hours of advanced work (3000/4000 level). For details, see the individual requirements under specific degree programs in this catalog.
5. A minimum of 36 semester hours of advanced work, 24 of which must be completed at UNT. 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.
6. An official degree plan prepared by the academic dean. It is recommended that the degree plan be made no later than the beginning of the junior year.
7. A minimum grade point average of 2.000 (C) on all work attempted, including all transfer, correspondence, extension and residence work. It should be noted that the GPA that appears on grade reports and is used to determine the student's academic status, does not
include correspondence, extension and transfer work. Thus, a 2.000 GPA on the grade report does not necessarily imply eligibility for graduation.
8. A minimum GPA of 2.000 (C) on all work at UNT. Transferred work may not be used to raise the GPA of work done at UNT.
9. At least twenty-five percent of the total number of hours for the degree (e.g., 30 hours for a 120-hour degree) must be earned in residence.
10. A proficiency in English composition. Students must show competence in written expression by receiving credit for or earning a grade of C or better in two general education English courses that have a strong writing component (Group 1: ENGL 1310, ENGL 1311, ENGL 1315, TECM 1312, TECM 1322, TECM 1700; Group 2: ENGL 1320, ENGL 1321, ENGL 1325, TECM 1322, TECM 2700). 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. Students who are transferring to UNT 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.

## University Core Curriculum

## 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. The student will need to work with an academic advisor in the appropriate college or school academic advising office to determine if additional requirements will be necessary to satisfy the 42 -hour UNT core. See also the UNT transfer articulation web page at registrar.unt.edu/transfer-guides, where you can find information on the online transfer course equivalence tool Transferology.

## College or school requirements

Students must satisfactorily complete all degree requirements specified by the school or college in which the degree is offered. In many instances, the college/school/department academic program requirements may exceed the university core requirements.

Individual academic programs may require courses contained in part of the University Core Curriculum to satisfy specific degree requirements. Students may be required to take additional courses if they fail to select these courses.

## Undergraduate academic certificate programs

The University of North Texas offers upper-division undergraduate academic certificate programs to meet workforce needs or to provide students with life/career skills and knowledge and to allow for specialization in academic disciplines.

## Admission

All students pursuing an undergraduate academic certificate must meet regular UNT admission requirements. Candidates for admission to the undergraduate academic certificate program must meet the minimum academic standards for the academic discipline. Postbaccalaureate students are eligible to pursue an undergraduate academic certificate.

## Requirements

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.

Students are expected to complete all hours for the undergraduate academic certificate requirements at UNT.

Upon completion of the requirement for an undergraduate academic certificate program, a student should apply to the academic dean of his or her college or school. Application forms are sent to the Registrar's Office at the end of each term.

The Registrar's Office posts undergraduate academic certificates to students' transcripts at the end of the semester earned and prints the certificates, which are mailed by the school or college awarding them.

Note: Hours used for attaining an undergraduate academic certificate could potentially 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 requirement modifications based on a disability

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 endeavors to make reasonable academic adjustments for qualified students with disabilities who require accommodation in order to fulfill the requirements for a degree. Modification of degree requirements may be considered in instances where:

- a student has provided documentation of a disability to the Office of Disability Accommodation, and
- the student has demonstrated a good-faith effort to pass these courses.

All requests for modification must be finalized in the office of the dean of the college or school in which the student is enrolled and must be filed early in the student's degree program. The dean has sole authority to make decisions for modifying college degree requirements, but no modification that compromises the integrity of the degree will be granted. Modifications of certification requirements cannot be considered by UNT and should be directed to the applicable agency. A student must come to the ODA to document a disability and then, if appropriate, the student will receive a letter supporting a substitution to take to the dean of his or her college.

A student who encounters access problems in a campus instructional facility or who wishes to request accommodation in a course because of a disability (i.e., sign language interpreters, material in alternate format, modified testing) should follow the procedures listed below:

1. Students must be registered with the ODA and receive an Accommodation Request form to present to their instructors. This form will contain information relative to the reasonable accommodations of the student and will assure the instructor that proof of disability is on file with the ODA. Students who do not present such a form can be referred to the ODA for assistance in completing the Accommodation Request. The ODA collects proof of disability and recommended compensation techniques from the licensed or certified professional making the diagnosis of disability.
2. Preferably within the first week of class, qualified students must notify the instructor of the need for academic adjustments and present the letter containing suggested accommodations from the ODA.
3. The qualified student should confer with the instructor to reach mutual agreement on how accommodation is to be achieved and to discuss the challenges of the course, teaching methods, learning techniques, testing methodologies, special equipment needs, access challenges and other pertinent topics.
4. If a student does not feel the accommodations being offered are effective, or if they are not provided, the student should first meet with the professor; if the problem persists the primary counselor at the ODA should be contacted to help facilitate a solution. If the student is not satisfied with the resolution, a formal appeal may be filed in accordance with the procedures described here: disability.unt.edu/services/grievance.

## Application for graduation

Students who may be eligible to graduate must submit their application through the MyUNT student portal. (Visit registrar.unt.edu for additional information about degree application deadlines.)

Degree applications are accepted only from undergraduate students who have a minimum overall C average. See "Grade point average" for grade point calculation details. Before applying, the student also must remove grades of I in required courses necessary for graduation if these courses increase the term/semester load beyond the maximum permitted.

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.

August graduates may file for graduation before the end of the spring term/semester.

## Requirements for a second bachelor's degree

To be eligible for a second bachelor's degree, a student must meet all current catalog requirements for the second degree, including 12 hours of advanced courses in a field different from the major for the first bachelor's degree.

## Degree plan/audit

The 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 program. A student should have a degree audit prepared no later than the beginning of the junior year.

## Grading system

UNT's grading system uses the letters A, B, C, D, F, P, NP, NPR, I, PR, W and WF. 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.

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.

NP — not passed; a failing grade on the pass/no pass option; non-punitive.

I - I is 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. These requirements must be listed on a Request for Grade of Incomplete form signed by the instructor, student and department chair and must be entered on the grade roster by the instructor. Grades of I assigned to an undergraduate course at the end of the Fall 2007 semester and later will default to F unless the instructor has designated a different automatic grade. See also "Removal of I" policy in the Academics section of this catalog.

PR — used to show that work is in process on thesis or dissertation in courses numbered 5950 and 6950.

NPR — used to indicate no progress on thesis or dissertation courses numbered 5950 and 6950, 6951, 6952, 6953 or 6954 in a given term.
W — drop or withdrawal without penalty. Given when a student drops a course or withdraws from the university prior to the end of the sixth week of classes of long terms/semesters or corresponding dates for summer sessions (specific dates are published in the online academic calendar at www.unt.edu/catalog/calendar.htm). See regulations for dropping and withdrawing. After that time the student must have a passing grade for the instructor to assign a grade of W for a dropped course; otherwise, the grade of WF is recorded.

WF — drop or withdrawal with a failing grade. Instructor may drop a student with a grade of WF from courses for nonattendance. May be assigned from the 7th through the 13th week of classes of long terms/semesters or corresponding dates for summer sessions (specific dates are published in the online academic calendar). See regulations for dropping and withdrawing.

Note: No grade points are allowed for grades F, I, NP, NPR, P, PR, W, WF or Z.

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

## Grade point average

The overall grade point average is used to determine student class loads, eligibility for admission to the university and certain programs, and eligibility for graduation. It is calculated by dividing the total number of grade points by the total number of semester hours attempted. All GPA calculations are subject to post-audit and correction by the Registrar's Office.

The number of semester hours attempted includes all courses with grades of A, B, C, D, F and WF unless replaced by a later grade. Courses with grades of I, NP, NPR, P, PR, W or Z are not counted as courses attempted.

## Academic standards

Students must achieve a minimum cumulative grade point average, referred to as the minimum CGPA requirement, to remain in good academic standing. At the end of the first term of enrollment at UNT, the minimum CGPA requirement is 1.8. In each subsequent term of enrollment, the minimum CGPA requirement is 2.0

The CGPA upon which academic standards are based is calculated by dividing the total number of grade points earned in residence at UNT by the total number of semester credit hours (SCH) attempted in residence at UNT. Excluded in this calculation are all courses in which the student received grades of NP, NPR, P, PR, W, Z or I. The cumulative grade point average as defined here is used only for determining a student's academic status and is not necessarily related to the grade point average that governs eligibility for graduation.

In calculating grade points, grades count as follows: $\mathrm{A}=4$ points per semester credit hour, $\mathrm{B}=3$ points, $\mathrm{C}=2$ points, $\mathrm{D}=1$ point, F and $\mathrm{WF}=0$ points.

Classification for the purpose of establishing the academic standing of the student is determined by the sum of all hours attempted in residence in regularly graded courses at UNT, hours passed in pass/no pass graded courses at UNT, and hours transferred from other institutions. Not included in the definition of student classification for academic standards are hours granted by the university for extension, service experience, advanced placement, credit by examination, CLEP or transfer hours attempted but not passed or accepted by the university for academic credit.

A student is placed on academic alert or academic probation at the end of any enrollment period in which the CGPA on work attempted in residence at this university does not equal or exceed the minimum CGPA requirement.

## Regulations governing students on academic alert

A freshman is placed on academic alert the first term/semester the CGPA drops below the minimum CGPA requirement. To be removed from academic alert, the student must raise the CGPA to a minimum of 2.0 during the next period of enrollment.

A student on academic alert who does not raise the CGPA to at least a minimum of 2.0 at the end of the next term/semester of enrollment is placed on academic probation.

## Regulations governing students on academic probation

A student who is not classified as a freshman, or a student who is a freshman and has been on academic alert, is placed on academic probation at the end of any enrollment period in which the CGPA drops below the minimum 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 CGPA.

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

A student who, during a probationary fall or spring term/semester, fails to raise the 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. (See "Regulations Governing Students Under Academic Suspension.")

The electronic grade report, available online at my.unt.edu at the end of each term/semester, includes a statement of academic status and a CGPA summary on which the status is based. Each student is responsible for knowing whether the minimum CGPA has been achieved and whether they are eligible to re-enroll or remain enrolled in the university. Any student enrolled when ineligible will be withdrawn by the Registrar, and no special consideration will be given to such student on a plea of ignorance of academic status. If the cumulative record is believed incorrect, the student should contact the Registrar's Office.

## Regulations governing students under academic suspension

A student who is suspended from the university for failure to meet the standards prescribed in the "Regulations Governing Students on Academic Probation" 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 |

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.

Each student is responsible for knowing the minimum CGPA requirements and the standards for academic standing. Any ineligible student who enrolls during a long term/semester will be withdrawn by the Registrar, regardless of whether the student has registered or pre-registered and paid fees. 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 CGPA to a minimum of 2.0, the student will be reinstated in good academic standing.

## Course duplications

A student may take a course a second or subsequent time. The Registrar's Office will post duplications at the request of the student, at the request of an academic advisor or upon review of the student's record. Until a duplication is posted the Registrar's Office includes a repeated course in the student's cumulative record of hours attempted and grade points earned. The Registrar includes without exception any course repeated more than once in the student's cumulative record of hours attempted and grade points earned. Departments may count the highest grade for departmental GPA requirements; however, the academic dean uses only the last grade recorded in certifying the student's eligibility for graduation.

Undergraduate students who enroll in the same course more than twice may be charged additional tuition amounts.

## Status changes due to course duplications

A student request for the recording of a course duplication made before or on the last class day of any term or session will be reflected in the hours attempted and grade points earned at the beginning of the term/semester or session.

If a student who is on academic alert or academic probation requests the recording of course duplications, and the resulting adjusted CGPA equals or exceeds the minimum CGPA requirement, the academic alert or probation status will be removed if the student notifies the Registrar's Office on or before the last class day for that term/semester or session. Otherwise, the student will remain on academic alert or probation for that enrollment period and be subject to attendant penalties.

If a student is suspended at the end of a term/semester during which the student has repeated a course and the posting of that duplication will result in a CGPA that would have been sufficient to be continued on probation at the end of that term/semester (or to be cleared), the student will be reinstated if the student requests the duplication and applies for reinstatement at the Registrar's Office. The delayed posting of course duplications completed during prior enrollment periods cannot be used as a basis for altering suspension history or reinstating lost registration schedules.

Courses duplicated Fall 2005 and later will result in a re-evaluation of a student's suspension history beginning with the term that the duplication was completed. The delayed processing of course duplications and updating of suspension history cannot be used as justification for reinstating lost registration schedules.

## Academic standards for transfer students

New UNT students who have fewer than 30 hours of transfer credit, excluding non-traditional credit, who are admitted via individual review and have less than the minimum CGPA requirement will be placed on academic alert. Other transfer students with 30 or more hours of transfer credit who are admitted via individual review are placed automatically on academic probation if their transfer cumulative grade point average falls below the minimum CGPA requirement. See "Transfer Students" in the Admission section of this catalog for a statement of current minimum entrance requirements for transfer students. To avoid academic suspension, transfer students admitted on academic probation must make a grade point average equal to or exceeding the minimum CGPA requirement.

Transfer students admitted to UNT in good standing are subject to minimum academic requirements. Thus, if at the end of the first enrollment period a transfer student's grade point average on all work attempted at UNT does not meet the minimum CGPA requirement, the student will be placed on academic alert or academic probation for the next period of enrollment and the Regulations Governing Students on Academic Alert or Academic Probation will apply.

Transfer students who have more than 30 credit hours and are admitted to UNT on academic probation are evaluated at the end of their first long term/semester in attendance, at which time they are either cleared from probation or suspended. To avoid academic suspension, the student must have earned a CGPA on all work attempted at UNT equal to or greater than the minimum CGPA requirement.

Additional information concerning academic status is available from the offices of the academic deans or the Registrar's Office.

## Transfer hours from another institution

Students who complete work at another institution, to be applied toward a bachelor's degree at the University of North Texas, should make sure that the appropriate officer of the other institution furnishes to the Office of Admissions or the Registrar's Office at the University of North Texas a complete official transcript of such work.

The Office of Admissions or the Registrar's Office determines acceptable transfer credit from other institutions based on evaluation of course content as described in the catalogs of those institutions and in consultation with appropriate academic units at UNT as necessary for clarification. Transfer credit may only be received for course work completed at an accredited institution of higher education. Transfer credit from other institutions will be converted to semester hours and a 4.0 grading system for evaluation purposes as appropriate. The student's academic dean determines applicability of the credit to a degree program. Students seeking a Bachelor of Applied Arts and Sciences (BAAS) degree should refer to the special provisions of the respective degree programs.

Students who have begun residence work at UNT and who 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.

Grade points earned at other institutions are excluded in the computations of the CGPA, but transfer hours accepted are included in determining the classification and minimum required level of performance.

Additional information concerning academic status is available from the advising offices of the academic deans or the Registrar's Office.
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.

Transfer hours from another institution are included in the overall GPA when determining honors for graduation.

## 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. The student will need to work with an academic advisor in the appropriate college or school academic advising office to determine if additional requirements will be necessary to satisfy the 42-hour UNT core. See also the UNT transfer articulation web page at registrar.unt.edu/transfer-guides, where you can find information on the online transfer course equivalence tool Transferology.

## Advanced-hour credit

A lower-level course that is substituted for a UNT upper-level course may not be used to satisfy advanced-hour requirements.

## Effects of withdrawal on academic status

Any student who withdraws from UNT prior to the end of the sixth week of classes (or the equivalent dates for summer sessions) is given grades of W and is not penalized with a reduced CGPA. Any student who withdraws after this period, but at least two weeks before the first day of final exams (summer session, six class meetings prior to finals; three week session, three class meetings prior to finals), is given grades of W or WF depending upon the student's grade average at the time of withdrawal. Grades of WF are included as hours attempted in calculating a student's minimum UNT cumulative grade point average required to remain in good standing. A student who does not officially withdraw from the
university is held responsible for grades of F and is placed on probation or suspended from the university if the grades of F bring the CGPA below the minimum required. For official dates and deadlines for withdrawal, visit www.unt.edu/catalog.

## Students called to active duty

Texas Education Code 54.006 (f) indicates, "Beginning with the summer semester of 1990, if a student withdraws from an institution of higher education because the student is called to active military service, the institution, at the student's option, shall: (1) refund the tuition and fees paid by the student for the semester in which the student withdraws; (2) grant a student, who is eligible under the institution's guidelines, an incomplete grade in all courses by designating 'withdrawn-military' on the student's transcript; or (3) as determined by the instructor, assign an appropriate final grade or credit to a student who has satisfactorily completed a substantial amount of course work and who has demonstrated sufficient mastery of the course material."

In order to be eligible for options under this law, a UNT student must produce a copy of his or her orders. 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. A student called to active duty may consider the following options:

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

## 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. These warnings are mailed from the Registrar's Office upon request by the instructor.

## Transcripts

Transcript request information can also be found on the Registrar web page: (http://registrar.unt.edu/transcripts-and-records/order-transcript).
Before an official transcript can be released, all financial or administrative obligations to the university must be resolved. To check for blocks, please refer to the student center at my.unt.edu. UNT transcripts may be ordered in person at the Registrar's Office or requested online.

If you have any questions concerning transcripts, please contact the Registrar's Office in person or call the Registrar's Office at 940-565-2111.

## 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 appeals procedure

## The procedure is currently under review.

1. Any student who believes a grade has been inequitably awarded should first contact the instructor who awarded the grade to discuss the issue and attempt to resolve the differences. Any instructor no longer associated with UNT at the time of the appeal will be represented in these proceedings by the chair of the department in question. A student not in residence the term/semester following the awarding of the grade or a resident student who is unable to resolve the differences with the instructor has 30 days following the first
class day of the succeeding term/semester to file a written appeal with the chair of the instructor's department, or the equivalent administrative unit
2. The chair may follow any of the four procedures below, or a combination of them:
a. The chair may confer with the instructor; or
b. The chair may request that the instructor submit a written reply to the student's complaint; or
c. The chair may conduct a meeting of the two parties; or
d. The chair may refer the case directly to the appropriate departmental committee, as outlined below.

In following one of the first three procedures above ( $\mathrm{a}, \mathrm{b}$ or c ), the chair should make a judgment on the merits of the case and recommend a specific action in regard to the disputed grade. Either the student or the instructor may appeal the recommendations of the chair.
3. The appropriate departmental committee to hear cases sent directly to it by the chair or appealed to it by either the student or the instructor shall be constituted as follows and shall perform the following duties.
a. It shall be an ad hoc committee consisting of two faculty members from the department in which the grade is being questioned, one of those members to be chosen by the student and one to be chosen by the instructor. If either party to the dispute declines to choose a member of the committee, the department chair will select that member. The third faculty member of the committee, who shall serve as chair, will be chosen either from within or without the department by agreement of the student and the instructor. If they cannot agree upon this third member, the member is chosen by the chair of the department, with the proviso that the student and the instructor may agree to stipulate that the third member of the committee be chosen from a related department rather than the department in question.
b. This ad hoc committee should require written statements from each participant in the dispute. Judgments may be rendered upon the basis of these statements, upon other evidence submitted in support of the statements and upon the basis of an oral hearing, if such a hearing seems necessary.
c. The committee must make a recommendation for disposition of the case within 30 days of its appointment.
d. All records in the case will be filed with the chair of the department in which the grade was originally awarded.
4. Either party to the dispute has 15 days following the rendering of the $a d$ hoc committee recommendation to appeal that recommendation to the dean of the respective college, if the appeal is based solely upon alleged violations of established procedures. Substantive matters, up to and including the refusal of the instructor to act in accordance with the ad hoc committee's recommendation or the student's refusal to accept the verdict, may not be appealed to the dean.
5. The dean of the college in question, after a review of the submitted written materials (and oral hearings if desired), shall make within 15 days a ruling about procedural questions. Said ruling may be appealed by either the student or the instructor to an ad hoc committee composed of three faculty members appointed by the dean and representing departments other than the one in which the disputed grade was awarded and three students appointed by the Committee on Committees of the Student Government Association.
a. This ad hoc committee will have 30 days from the date of its appointment to complete its work.
b. This committee shall operate within the guidelines set out for departmental ad hoc committees in 3 b above.
c. All rulings made by this committee regarding procedural questions shall be final.
d. All documents related to the case shall be returned to the chair of the originating department for department files.

## 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.
A faculty member who believes an error has been made in calculating or recording a grade may submit in person a request for a grade change to the department chair and the appropriate dean. The Registrar accepts requests for grade changes only from the academic deans.

## Removal of I

A student may remove a grade of I within one year by completing the stipulated work. After the student completes the stipulated work, the instructor records the final grade on a UNT Grade Change Form and obtains the department chair's signature. The instructor's academic dean completes processing with the Registrar's Office, where the grade point average is adjusted accordingly. For undergraduate courses taken Fall 2007 or later, if a student does not complete the stipulated work within the time specified, 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.

## 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 and the hours attempted will not be used in calculating the grade point average.

The pass/no pass option for a particular course is elected at the time of registration. Requests are processed after the term/semester begins. Students may change to the regular grading system in the office of their academic dean any time before the end of the sixth week of classes, or the corresponding point of a summer session, provided the eligibility requirements above are met.

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 $\mathbf{P}$ 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 enroll under the pass/no pass option only for undergraduate courses that are not required as a deficiency makeup or as a graduate degree requirement.

## Courses automatically graded pass/no pass

Certain graduate-level individual instruction courses will be graded pass/no pass when classes are taught on campus in those departments whose faculty have voted for the use of this grading system for individual instruction.

## Dean's list and president's list

Students completing at least 12 hours of class work in regularly graded courses taken in residence during the long session with a grade point average of 4.0 are eligible for recognition on the president's list. Students with a 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.

## Graduation with honors

Candidates for graduation whose overall grade point average, based on grades earned in University of North Texas resident credit courses and transferred resident credit courses, is at least 3.500 but less than 3.700 are eligible to graduate cum laude; those whose GPA, as defined above, is at least 3.700 but less than 3.900 are eligible to graduate magna cum laude; and those whose GPA, as defined above, is 3.900 to 4.000 are eligible to graduate summa cum laude.

Hours earned through correspondence and extension courses, or pass/no pass courses, may not be counted in calculating the GPA for determination of eligibility for graduation with honors. Candidates for a second bachelor's degree are not eligible for graduation with honors.

## Records policies

## State privacy policy

State law, with few exceptions, gives individuals the right to be informed about the information UNT collects about the individual. 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. 1.7.9) is available at www.unt.edu/policy.

## Student education records

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 18.1.9. Information not covered by FERPA will be released only in accordance with the policy on public information found in policy number 10.6 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 (18.1.9) can be found at www.unt.edu/policy.

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

1. Inspect and review the student's education records within 45 days of the day the university receives a written request for access. Students should submit written requests that identify the record(s) they wish to inspect to the registrar, dean, head of the academic department or other appropriate official. 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. A student may ask the university to amend a record that he or she believes is inaccurate, misleading or a violation of privacy. The student should write to the UNT System Office of General Counsel, 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.
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; university assigned e-mail address; university assigned enterprise-wide user identification number (EUID); month, day and place of birth; 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's Rights, Responsibilities and Conduct.
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 in advance of compliance. The university will not disclose any information about a grand jury subpoena issued for law enforcement purposes when so ordered and when required by law or government regulation.
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 re disclosure 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.

## UNT internships

Many employers prefer to hire graduates with hands-on experience in their majors. Students can gain practical experience and enhance their classroom learning through an internship opportunity.

In addition to providing insight into future careers, working as an intern provides a competitive advantage in the job market because of the skills developed while in the position.

The Career Center helps students obtain high-quality internships prior to graduation by working closely with potential and existing employers to promote internships within their organizations.

The Career Center hosts a number of career-related workshops open to all enrolled students on the Eagle Network.

## Internships

Internships are work experiences (typically one semester) related to a student's field of study and may provide a competitive advantage in the job market by:

- providing transferable skills through work in a professional environment,
- creating professional contacts within industry or occupational area, and
- teaching more about major and career path.

The Career Center works with more than 4,000 employers who offer internship programs such as Ericsson, McKesson, Southwest Airlines, Texas Instruments and many others.

Internships can be part time or full time and are available throughout the year. The summer is the most popular season for obtaining them. Depending on a student's major, academic credit may be received for completing an internship. Completing an internship is mandatory in some degree programs.

The Career Center strongly promotes paid internships; however, in some cases, depending on the organization, industry and specific job, internships may be unpaid.

Some degree programs require students to fulfill an internship as part of their course work and in some cases a paid internship is mandatory to meet curriculum requirements.

## Earning academic credit

Depending on the chosen major, students may be eligible to receive academic credit for an internship. Department policies vary based on these opportunities but often they are evaluated based on how the work relates to the student's field of study, the length of the internship, what learning opportunities are available and whether supervision or mentoring is provided by a professional in the field.

Career Center staff work closely with faculty members to coordinate the student's academic credit.

For further information, contact the Career Center in Chestnut Hall, Suite 103; by phone, 940-565-2105; or visit the web site at careercenter.unt.edu.

## UNT Lifelong Learning and Professional Development

UNT Lifelong Learning and Professional Development provides the administrative structure for lifelong learning programs to meet professional development and career development and leisure learning needs of adult groups.

Professional development programs (conferences, seminars, workshops, etc.) for all of the schools and colleges of the university can be coordinated by this department. This assistance includes financial planning in accordance with official university procedures; arrangements for housing, food service, meeting space, transportation and audiovisual equipment; and assistance with preregistration and on-site registration.

Within Lifelong Learning and Professional Development, the Professional College offers courses for working adults who want to update or upgrade their professional skills and knowledge. Through the Professional College, different schools and college offer non-credit professional development executive education seminars and certificate programs.

Continuing education credit is awarded by the department, and these records, which are kept on permanent file, are reported to the Southern Association of Colleges and Schools Commission on Colleges as an important part of the accreditation process.

Lifelong learning and leisure learning programs for adults include the Emeritus College and Travel Learn. Emeritus College offers non-credit classes for adults 50 and older. Travel Learn offers unique educational opportunities, combining domestic and international travel with the expertise of UNT faculty and local guides.

The department is responsible for arranging and scheduling the use of university classroom facilities for off-campus groups and for university departments for purposes other than credit classes.

UNT Lifelong Learning and Professional Development is located in Woodhill Square, 1100 Dallas Drive, Suite 112. For additional information, call 940-565-2656, visit the web site at lifelong.unt.edu or write to the director, 1155 Union Circle \#310560, Denton, TX 76203-5017.

## University Core Curriculum

## University Core Curriculum requirements

The University Core Curriculum is designed to ensure that all UNT students graduate with breadth of knowledge gained through their general education classes as well as depth of knowledge gained from courses in their major area of study. The core curriculum at UNT requires that students study in the "foundational component areas" of communication, mathematics, life and physical sciences, language, philosophy and culture, creative arts, American history, government/political science, and social and behavioral sciences. In addition, the UNT core curriculum includes 6 semester credit hours of component area options specific to UNT. Classes in the core component areas help students develop important and fundamental skills that will help them be successful in all their classes and will prepare them for their lives after college. These "core objectives" are Critical Thinking, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. Through the Core, students will gain an enthusiasm for learning and an intellectual capacity that they will use throughout their lives.

## Statement of Purpose

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.

## Core Objectives

- Critical Thinking Skills, including creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- Communication Skills, including effective development, 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
The UNT Core Curriculum complies with the mandates of the 1997 Texas Legislature regarding requirements for state-assisted institutions.

Individual academic programs may require courses contained in parts of the University 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 by their degree.
Note: Additional courses are under review for inclusion in the University Core Curriculum.

## Requirements

Note: Texas Common Course Numbering System (TCCNS) numbers, when applicable, are indicated in parentheses following the UNT course number and title. Some courses may have additional equivalents. See the Courses of Instruction section of this catalog for additional information about the TCCNS.

## Communication (English Composition and Rhetoric), 6 hours

## Developing Critical Thinking, Communication Skills, Teamwork, and Personal Responsibility

Courses in this category focus 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. The student may choose from the following courses, usually taken in sequence (ENGL 1310 followed by ENGL 1320, for example):

## Group 1

One course from the following, usually taken first in the sequence:

- ENGL 1310 - College Writing I
- ENGL 1311 - Honors Composition I *
- ENGL 1315 - Writing About Literature I
- TECM 1312 - Introduction to Academic Writing for International Students **
- TECM 1700 - Introduction to Professional, Science, and Technical Writing


## Group 2

One course from the following, usually taken second in the sequence:

- ENGL 1320 - College Writing II
- ENGL 1321 - Honors Composition II *
- ENGL 1325 - Writing About Literature II
- TECM 1322 - Introduction to Academic Writing for International Students **
- TECM 2700 - Technical Writing


## Note

TECM 2700 (ENGL 2311) may be substituted for ENGL 1320 upon approval of the school/college.
A grade of C or better is required on courses applied toward this requirement. See your advisor for assistance.

## Mathematics, 3 hours

Developing Critical Thinking, Communication Skills, and Empirical and Quantitative Skills
Courses in this category focus 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.

The student may choose from the following courses:

- DSCI 2710 - Data Analysis with Spreadsheets
- MATH 1180 - College Math for Business, Economics and Related Fields
- MATH 1190 - Business Calculus
- MATH 1350 - Mathematics for Elementary Education Majors I ***
- MATH 1580 - Survey of Mathematics with Applications
- MATH 1581 - Survey of Mathematics with Applications and Algebra Review
- MATH 1600 - Trigonometry
- MATH 1610 - Functions, Graphs and Applications
- MATH 1650 - Pre-Calculus
- MATH 1680 - Elementary Probability and Statistics
- MATH 1681 - Elementary Probability and Statistics with Algebra Review
- MATH 1710 - Calculus I

Note

The following courses have college-level prerequisites: MATH 1190, MATH 1350, MATH 1600, MATH 1610, MATH 1650 and MATH 1710.

## Life and physical sciences, 6 hours

Developing Critical Thinking, Communication Skills, Empirical and Quantitative Skills, and Teamwork

Courses in this category focus 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.

This requirement may be satisfied by earning 6 semester hours in two laboratory sciences that meet the science requirement of the student's degree program. The student may choose from the following courses:

- ANTH 2700 - Introduction to Physical Anthropology
- ARCH 2800 - Archaeological Science
- BIOL 1082 - Biology for Educators
- BIOL 1112 - Contemporary Biology
- BIOL 1122 - Plant Biology
- BIOL 1132 - Environmental Science
- BIOL 1142 - Microbes and Society
- 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 for Science Majors
- CHEM 1412 - General Chemistry for the Honors College *
- CHEM 1413 - Honors General Chemistry *
- CHEM 1415 - General Chemistry for Engineering Majors
- CHEM 1420 - General Chemistry for Science Majors
- CHEM 1422 - General Chemistry for the Honors College *
- CHEM 1423 - Honors General Chemistry *
- GEOG 1710 - Earth Science
- GEOL 1610 - Introductory Physical Geology
- HMGT 2460 - Introduction to Nutrition Science
- PHYS 1052 - The Solar System
- PHYS 1062 - Stars and the Universe
- PHYS 1210 - Conceptual Physics ***
- 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


## American History, 6 hours

Developing Critical Thinking, Communication Skills, Social Responsibility, and Personal Responsibility
Courses in this category focus 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.

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 American/Texas history requirement by advanced standing examination.

This requirement may be satisfied by earning 6 hours credit from the following courses:

- 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

Developing Critical Thinking, Communication Skills, Social Responsibility, and Personal Responsibility
Courses in this category focus 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 what course is required to complete this requirement.

This requirement may be satisfied by earning 6 hours credit from the following courses:

- PSCI 1040 - American Government: Laws and Institutions
- PSCI 1041 - Honors American Government *
- PSCI 1050 - American Government: Process and Policies
- PSCI 1051 - Honors American Government *


## Creative Arts, 3 hours

Courses in this category focus 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.

This requirement may be satisfied by 3 hours credit in any of the following:

- ART 1300 - Art Appreciation for Non-Art Majors
- ART 1301 - Honors Art Appreciation *
- ART 2360 - Art History Survey II
- COMM 2060 - Performance of Literature
- DANC 1200 - Appreciation of Dance as a Contemporary Art Form
- DANC 2800 - Survey of Dance
- MUMH 2040 - Music Appreciation
- MUMH 3000 - Nineteenth-Century Music
- MUMH 3010 - Twentieth-Century Music
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- THEA 1340 - Aesthetics of the Theatre Throughout the World
- THEA 2340 - Theatre Appreciation
- THEA 3030 - World Theatre to 1700
- THEA 3040 - World Theatre After 1700


## Language, Philosophy and Culture, 3 hours

## Developing Critical Thinking, Communication Skills, Social Responsibility, and Personal Responsibility

Courses in this category focus 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.

This requirement may be satisfied by 3 hours credit in any of the following:

- AGER 2250 - Images of Aging in Film and Literature
- ANTH 3101 - American Culture and Society
- ANTH 3110 - Indigenous Peoples of North America
- ANTH 3120 - Indigenous Cultures of the Southwest
- ANTH 3140 - Latinos in the U.S.
- ANTH 3200 - Peoples and Cultures of 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
- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
- ENGL 2211 - Survey of World Literatures from Antiquity to 1700 *
- ENGL 2220 - Survey of World Literatures from 1700 to the Present
- ENGL 2221 - Survey of World Literatures from 1700 to the Present *
- FREN 3040 - France Today
- FREN 4060 - Studies in French Literature
- FREN 4310 - Contemporary French Civilization
- GERM 3040-Topics in German Culture
- GERM 3050-Topics in German Literature
- HDFS 2313 - Courtship and Marriage
- HIST 1050 - World History to the Sixteenth Century
- HIST 1060 - World History from the Sixteenth Century
- ITAL 3040 - Topics in Italian Culture
- ITAL 3050 - Contemporary Italian Culture Through Film
- ITAL 3070 - Introduction to Italian Literature
- JAPN 3020 - Advanced Japanese I
- LANG 3000 - Russian Folklore and Magic
- MUET 3030 - Music Cultures of the World
- PHIL 1050 - Introduction to Philosophy
- PHIL 1400 - Contemporary Moral Issues
- PHIL 2050 - Introduction to Logic
- PHIL 2070 - Great Religions
- PHIL 2100 - Introduction to Judaism
- PHIL 2310 - Introduction to Ancient Philosophy
- PHIL 2600 - Ethics in Science


## Social and Behavioral Sciences, 3 hours

Developing Critical Thinking, Communication Skills, Empirical and Quantitative Skills, and Social Responsibility

Courses in this category focus 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.

This requirement may be satisfied by 3 hours credit in any of the following:

- AGER 4560 - Minority Aging
- AGER 4800 - The Social Context of Aging: Global Perspectives
- ANTH 1010 - Introduction to Anthropology
- ANTH 2300 - Culture and Society
- BEHV 2300 - Behavior Principles I
- CJUS 2100 - Crime and Justice in the United States
- COMM 2020 - Interpersonal Communication
- EADP 4050 - Special Populations and Disasters
- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- GEOG 1200 - Global Societies
- HDFS 1013 - Human Development
- HLTH 2200 - Family Life and Human Sexuality
- JOUR 1210 - Mass Communication and Society
- MDSE 2750 - Consumers in a Global Market
- MUAG 1500 - Occupational Health - Lessons from Music
- PADM 2100 - Cultural Competency in Urban Governance
- PSYC 1630 - General Psychology I
- PSYC 1650 - General Psychology II
- PSYC 3620 - Developmental Psychology
- RHAB 3100 - Disability and Society
- SOCI 1510 - Introduction to Sociology
- SOCI 2100 - Crime and Justice in the United States
- SOWK 1450 - Introduction to Social Work


## Component Area Options, 6 hours

Developing Critical Thinking, Communication Skills, and other core objectives related to an associated foundational component area

Component area option courses are designed to help students gather the tools necessary for full engagement in the undergraduate experience. Courses may be offered within any discipline, though they may not be offered in every discipline. Students may take these courses in any discipline, depending on availability and their major requirements.

## Category I (3 hours)

- AGER 2250 - Images of Aging in Film and Literature
- ANTH 1100 - World Cultures
- ANTH 1150 - World Cultures Through Film
- ANTH 2070 - Introduction to Race and Ethnic Relations
- ANTH 2200 - Gender in Cross-Cultural Perspective
- ART 1200 - Art Appreciation
- ART 1300 - Art Appreciation for Non-Art Majors
- ART 1301 - Honors Art Appreciation *
- BCIS 3615 - Visual Display of Business Information
- BIOL 1000 - Discover Life Science
- 
- BIOL 1750 - Introductory Biology Research Laboratory I and
- BIOL 1755 - Introductory Biology Research Laboratory II
- 
- BMEN 1300 - Discover Biomedical Engineering
- BUSI 1340 - Managing the Business Enterprise
- CHEM 1400 - Discover Chemistry
- COMM 1010 - Introduction to Communication
- COMM 1440 - Honors Classical Argument *
- COMM 2040 - Public Speaking
- COMM 2140 - Advocating in Public
- COUN 2620 - Diversity and Cultural Awareness
- CSCE 1010 - Discovering Computer Science
- DANC 1100 - Stress Reduction Through Movement
- EENG 1910 - Project I: Learning to Learn
- ENGL 3000 - Introduction to Literary Analysis and Interpretation Skills
- ENGR 1030-Technological Systems
- FREN 1610 - French Influences in North America
- FREN 1620 - The French Language in Canada
- GEOG 1500 - Geospatial Technology and Urban Environments
- HDFS 2033 - Parenting in Diverse Families
- HDFS 3423 - Family, School and Community
- HLTH 2000 - Introduction to Public Health
- HMGT 1450 - Principles of Nutrition
- HNRS 1100 - The Good Society *
- HNRS 1500 - Introduction to Research: An Interdisciplinary Perspective *
- INST 2100 - Introduction to International Studies
- INST 2500 - Global Perspectives: Cultural Competency and Citizenship
- ITAL 1610 - Italian Influences in the United States of America
- JOUR 1210 - Mass Communication and Society
- LANG 1610 - Linguistic Landscapes Around the World
- LING 2050 - The Language of Now: Pop Culture, Technology and Society
- MATH 2000 - Discrete Mathematics
- MDSE 2750 - Consumers in a Global Market
- MEEN 1000 - Discover Mechanical and Energy Engineering
- MGMT 3330 - Communicating in Business
- MKTG 2650 - Culture and Consumption
- MKTG 3010 - Professional Selling
- MUMH 1600 - Music in Human Imagination
- MTSE 1100 - Discover How and Why Materials "Matter"
- PHED 1000 - Scientific Principles and Practices of Health-Related Fitness
- PHIL 1800 - Philosophy of Self
- PHIL 2400 - Religion and American Society
- PHIL 2500 - Introduction to Contemporary Environmental Issues
- PHIL 4150 - Feminism
- PHIL 4200 - Science, Technology and Society
- PHIL 4300 - Philosophy of Food
- PSCI 1010 - Politics and Pop Culture
- PSYC 1500 - Mythbusting: Distinguishing Fact from Fallacy in Psychology and Everyday Life
- RHAB 3000 - Microcounseling
- SOCI 2070 - Introduction to Race and Ethnic Relations
- SOWK 4540 - Human Diversity for the Helping Professions
- TECM 1500 - New Media for Your College Career
- WGST 2100 - Introduction to Women's and Gender Studies


## Category II (3 hours)

One additional course selected from:

1. Category I (listed above) OR
2. all other Core areas

All selections are based on recommendations from college major requirements. See your academic advisor or degree audit for details.

## Notes

* Course offered for Honors College students only.
** Course offered for international students only.
*** Course offered for elementary education students only.

Inclusion of specific courses within core categories is subject to final approval.

## Enrollment

## Student load

## Fall/spring

## Undergraduate

The normal load for full-time undergraduate students is 15 semester hours for each fall or spring term/semester, or 30 hours for the nine-month academic year. Note: For information pertaining to the required semester hours for enrollment verification purposes, refer to "Enrollment Certification" below.

An undergraduate student with a GPA of less than 3.000 may schedule a maximum of 19 semester hours.

An undergraduate student with a GPA of at least 3.000 may enroll for a maximum of 21 hours for the fall or spring term/semester by meeting the following 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, or
3. at least a 3.000 GPA on all work completed at UNT and a minimum 24 hours of credit in residence.

## Graduate

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

## Summer

## Undergraduate

The normal load for full-time students is 12 hours for the summer term/semester.

During the summer term/semester, a full-time undergraduate student with a GPA of less than 3.000 may select multiple sessions for a maximum of 18 semester hours.

Undergraduate students may schedule a maximum of 4 hours in 3 W 1 session, a maximum of 9 hours in 8 W 1 session, a maximum of 8 hours in 5W1 session, a maximum of 7 hours in 5W2 session, and a maximum of 15 hours in 10W session.

Note: For 3W1 (three week one) the normal load for full-time students is 3 hours. Undergraduate students may schedule a maximum of 4 hours in 3W1 session.

## Graduate

A full-time graduate student with a GPA of at least 3.000 may select multiple sessions for a maximum of 18 hours.

Constraints apply to graduate course enrollment. Graduate students may schedule a maximum of 4 hours in a three week session (3W1), a maximum of 7 hours in a five week session (5W1, 5W2), a maximum of 9 hours in a ten week session (10W), or a maximum of 9 hours in an eight week session (8W1). 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. Graduate students enrolled only in undergraduate courses, for undergraduate credit, may request special consideration of the graduate dean.

Note: For 3W1 (three week one) the normal load for full-time students is 3 hours. Graduate students may schedule a maximum of 4 hours in 3W1 session.

## Enrollment certification

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.

## 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.
Three-Quarter Time: fall, spring or summer term/semester, 6 to 8 hours.
Half Time: fall, spring or summer term/semester, 5 hours.

Extension courses are considered nontraditional credit and are excluded for certification purposes.
International students also may request International Advising to issue letters of enrollment for the use of foreign governments, embassies, scholarship agencies and banks. International Advising is located on the second floor of Sycamore Hall.

## Verification of enrollment/enrollment certificate

UNT student enrollment verifications are supplied by the National Student Clearinghouse (NSC). 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.

## Student enrollment verification self-service

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.

## Alternative class offerings

In addition to regular daytime classes, UNT offers evening and weekend on-campus and off-campus residence credit courses and courses at the Universities Center at Dallas, as well as other distance education and web-based courses. See "Distance Education (Web-Based and Videoconference)" in the Campus Resources section of this catalog.

## Correspondence courses

## Regulations governing correspondence courses

1. A student in residence 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.
2. Not 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.
3. A maximum of 6 hours of upper-level correspondence work completed in transfer will be accepted toward a degree program at UNT.
4. Graduate credit is not accepted in transfer through correspondence study.

## Auditing

With the written permission of the department chair and the dean of the college or school in which the course is taught, an individual fully eligible to enroll in the university may attend a class as an auditor without receiving college credit. The auditor's name is not entered on the class roll, and the instructor does not accept any papers, tests or examinations from the auditor.

Attendance as an auditor may not be made the basis of a claim for credit in the course. Auditors pay a fee. Only one audit fee is required per semester regardless of the number of courses audited. Tuition and fee information is available online at essc.unt.edu/saucs.

Permission forms for auditors are not available during the official registration period but may be requested in the offices of the academic deans after classes begin.

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.

## Registration

All registration and student-requested schedule changes are conducted via web registration at my.unt.edu. Specific information and instructions as well as dates are found online at www.unt.edu/registrar and at my.unt.edu.

## Late registration

Students who did not enroll during the official registration periods must pay an additional fee to enroll late. Refer to www.unt.edu/registrar for late registration information.

## Concurrent registration

A student in residence who wishes to enroll concurrently at another college must first secure the written permission of the appropriate dean at UNT. Failure to obtain advance approval may result in the refusal of the university to accept such work in transfer.

Students who earn transfer hours from other institutions while attending UNT must submit 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 provisions for avoiding more than one minimum tuition charge are available for students enrolling concurrently in more than one statesupported institution of higher education. Students planning concurrent enrollment are cautioned to check these provisions prior to enrollment in any state institution.

## Enrollment at the Universities Center at Dallas

Students enrolling for upper-division under-graduate courses or graduate courses offered by the partner universities of the Universities Center at Dallas (UCD), a Multi-Institutional Teaching Center (MITC) located in downtown Dallas, may enroll at their home institution for courses offered by the other UCD universities.

Three universities cooperate in offering upper-division undergraduate courses and graduate courses at UCD: Texas A\&M University-Commerce, the University of North Texas and the University of Texas at Arlington. For details and course offerings, call UCD at 214-915-1900 or visit the UCD web site at www.ucddowntown.org. UCD is located at 1901 Main Street in downtown Dallas.

## Enrollment at the Collin Higher Education Center

The CHEC is located at 3452 Spur 399, McKinney, Texas 75059. For current information about the CHEC, call 972-599-3126, visit the CHEC web site at www.collin.edu/chec/, or call the UNT Office of Admissions at 940-565-2681.

## Schedule changes

For information concerning adding or dropping courses, consult the online Schedule of Classes at www.unt.edu/registrar or my.unt.edu.

## Class attendance

Regular and punctual class attendance is expected. Although in general students are graded on intellectual effort and performance rather than attendance, absences may lower the student's grade where class attendance and class participation are deemed essential by the faculty member. In those classes where attendance is considered part of the grade, the instructor should so inform students at the semester's beginning by a written notice. Any instructor who informs students in writing about the necessity of class attendance may request of the Registrar that a student be dropped from the course with a grade of WF upon the accumulation of the stated number of absences. Instructor drops for non-attendance may be processed up to two weeks prior to the first day of final examinations for fall or spring terms/semesters and equivalent dates for summer sessions. Refer to www.unt.edu/catalog for more information. Departments and similar academic units have authority to establish a department or course attendance policy, so long as the policy is in accord with the above stipulations.

If the instructor-initiated drop action falls within the time the student is eligible to drop with instructor consent and without penalty, the Registrar's Office notifies the student that a WF will be recorded unless the student initiates the drop procedure, in which case a W will be assigned.

## Authorized absences

Absences due to participation in sponsored activities must be approved in advance by the department chair and academic dean. Within three days after the absence, students must obtain authorized absence cards from the Dean of Students for presentation to their instructors. Students with authorized absence cards may make up the work missed when practicable or be given special allowance so that they are not penalized for the absence.

## Absence for religious holidays

In accordance with state law, a student absent due to the observance of a religious holiday may take examinations or complete assignments scheduled for the day(s) missed, including those missed for travel, within a reasonable time after the absence. The student should notify the instructor of each class of the date of the anticipated absence as early in the semester as possible.

Only holidays or holy days observed by a religion whose place of worship is exempt from property taxation under Section 11.20 of the Tax Code may be included. A student who is excused under this provision may not be penalized for the absence, but the instructor may respond appropriately if the student fails to complete the assignment or examination.

## Students called to active duty

Texas Education Code 54.006 (f ) indicates, "Beginning with the summer semester of 1990, if a student withdraws from an institution of higher education because the student is called to active military service, the institution, at the student's option, shall: (1) refund the tuition and fees paid by the student for the semester in which the student withdraws; (2) grant a student, who is eligible under the institution's guidelines, an incomplete grade in all courses by designating 'withdrawn-military' on the student's transcript; or (3) as determined by the instructor, assign an appropriate final grade or credit to a student who has satisfactorily completed a substantial amount of course work and who has demonstrated sufficient mastery of the course material." Students should contact the Dean of Students to determine their options.

In order to be eligible for options under this law a UNT student must produce a copy of his or her orders. 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. A student called to active duty may consider the following options:

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

## Dropping courses

Students who wish to drop a course before the 12th class day of fall or spring terms/semesters or before the equivalent dates for summer sessions, may do so in the Registrar's Office or at my.unt.edu. After the 12th class day for fall or spring terms/semesters or the equivalent dates for summer sessions, students must first receive the written consent of the instructor prior to dropping a course. The instructor may withhold consent for students to drop for any reason provided the instructor has informed students in writing at the beginning of the semester. Students applying for financial aid are required to notify Student Financial Aid and Scholarships before dropping any class to learn how it will affect current or future financial aid eligibility.

The grade of W is recorded for any course dropped with the instructor's consent prior to the end of the sixth week of classes for fall or spring terms/semesters or the equivalent dates for summer sessions. After that time, the student must have a passing grade for the instructor to assign a grade of W for a dropped course; otherwise, the grade WF is recorded.

Instructors may drop students with grades of WF from courses for nonattendance at any time after the completion of the sixth week of classes for fall or spring terms/semesters or the equivalent dates for summer sessions. See "Class Attendance" in this section.

No student may drop any course after the designated day of a given semester's 10 th week for fall or spring terms/semesters or the equivalent dates for summer sessions.

Drop procedures must be completed by 5 p.m. on the deadline dates specified in the online academic calendar (at www.unt.edu/catalog). After these dates, a student may not drop a course for any reason.

See the online Schedule of Classes at www.unt.edu/registrar for drop procedure and instructions.

## Limitation of drops

Students enrolling in higher education for the first time during the fall 2007 academic term or any term subsequent to the fall 2007 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 limit if the student can show good cause for dropping more than that number, including but not limited to a showing of:

- a 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;
- the 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 control of the student 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 summer sessions by making a request in the Dean of Students Office. For withdrawals processed prior to the end of the sixth week of classes for fall or spring terms/semesters or the equivalent dates for summer sessions, the grade of W is recorded for each course in which a withdrawn student was enrolled. After the sixth week of classes for fall or spring terms/semesters or the equivalent dates for summer sessions, a withdrawn student receives grades of W only for those courses in which there were passing grades at the time of withdrawal; otherwise, the grade WF is recorded.

Students called to active military service during a semester in which they are enrolled may be entitled to a refund of tuition and fees if they withdraw or the student may be entitled to receive a final grade or incomplete grade in courses. Students should contact the Dean of Students Office to determine their options.

Official dates and deadlines for withdrawing are specified in the online academic calendar at www.unt.edu/catalog.
To receive a refund for a parking permit, a student must return the parking permit to the Parking Office located in the Highland Parking Garage.

## Pre-finals days

So that students can more adequately prepare for their final examinations, the University of North Texas (UNT) sets aside days preceding final examinations during which no new material may be disseminated and extracurricular and organizational activities are suspended.

During pre-finals days, no new curricular content will be disseminated; student organizations do not meet; and no extracurricular activities will be required. Any deviation from these requirements must be approved in advance by the appropriate dean or director.

On the Friday of the week immediately preceding final exams (reading day), no classes are held.

## Final examinations

Faculty members are required to administer final exams at the designated times during the exam week of each long semester and during the specified day of each summer term if a final examination for the course is required. Any deviation from the published schedule must be approved in advance by the appropriate academic dean.

Students who have more than two final examinations scheduled on one day may request to reschedule one of the examinations on another day during the final examination period.

## Commencement exercises

Commencement exercises are held in December and May. Diplomas are mailed to candidates approximately eight weeks after graduation has been verified.

## Financial information

## Tuition and mandatory fees

Tuition, fees, 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 amounts due UNT resulting from post audits and corrections, including all fees and waivers; 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 and University Cashiering Services web site
(studentaccounting.unt.edu). Student Accounting and University Cashiering Services is open from 8:15 a.m. to 5 p.m. Monday through Friday.
Please visit the Student Accounting and University Cashiering Services web site (studentaccounting.unt.edu) for the most current tuition and fee rates.

## Tuition plans

Undergraduate students have the choice between two tuition plans-the Eagle Express Tuition Plan and the Traditional Tuition Plan. The Eagle Express Tuition Plan lets a student lock in their total academic costs and receive up to a $\$ 3,000$ incentive when they graduate on time. You must meet Texas residency requirements and be seeking a bachelor's degree to be eligible for this plan. Students on the Traditional Plan will pay a 3.9 percent increase in tuition each year. If you do not meet the Texas residency requirements, you will be automatically enrolled in the traditional tuition plan.

For additional information concerning UNT's Tuition Plans for Undergraduate Students, go to eagleexpress.unt.edu.

## Undergraduate 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. Hours attempted by students who initially enrolled as undergraduates prior to the 1999 Fall Semester are exempt. Please refer to www.unt.edu/registrar/Excesshours.htm for specific information.

Undergraduate students who enroll in certain courses more than twice will be charged additional tuition amounts. Please refer to www.unt.edu/registrar/Repeated_Courses.htm for specific information.

## Graduate tuition rates

## (Tuition rates are subject to change)

Please visit the Student Accounting and University Cashiering Services web site (studentaccounting.unt.edu) for the most current tuition and fee rates.

## Explanation of fees

## (Fees are subject to change)

Visit the Student Accounting and University Cashiering Services web site (studentaccounting.unt.edu) for current fees.

## Student service fees

Student service fees are assessed in proportion to the number of semester credit hours for which a student registers to cover the cost of student services that directly involve or benefit students, including, but not limited to, recreational activities, artist and lecture series, cultural entertainment series, debating and oratorical activities and student government.

## Student union fee

A fixed student union fee is collected from each enrolled student for the purpose of operating, maintaining, improving and equipping the University Union. Activities financed by the student union fee are limited to those in which the entire student body is eligible to participate.

## Technology use fee

The technology use fee is collected in proportion to the number of credit hours for which a student registers to defray costs associated with the addition of instructional equipment in classrooms and student computer laboratories, development of the degree audit system and instructionrelated activities in the Computing Center.

## Library use fee

The library use fee is collected in proportion to the number of credit hours for which a student registers to support the development and maintenance of library collections and to provide expanded operating hours and other services to meet student needs.

## Medical services fee

The fixed medical services fee is used solely to provide medical services to students enrolled at the university.

## International education fee

A fixed international education fee is collected from each enrolled student to be used in support of an international education financial aid fund. This fund allows an equal opportunity for all students to participate in student exchange and study abroad programs.

## Publication fee

A fixed publication fee is collected from each enrolled student to defray costs associated with publication and distribution of schedules of classes, catalogs and other publications available to all students.

## Recreational facility fee

A fixed recreational facility fee is collected from each enrolled student for the purpose of operating the Pohl Recreation Center.

## Transportation fee

The transportation fee, which is collected in proportion to the number of credit hours for which a student is registered, supports the shuttle bus system that transports students to, and around, various locations on campus.

## Undergraduate Advising Fee

The undergraduate advising fee, which is collected in proportion to the number of credit hours for which a student is registered, supports the advising process for undergraduate courses.

## International Student Fee

A fixed international student fee is charged to all non-immigrant visa students for each term in which they enroll in UNT. The fee is billed with tuition and other fees and is in addition to totals listed above.

## Intercollegiate athletics fee

This fees is assessed in proportion to the number of semester credit hours for which a student registers to cover the cost of UNT athletics programs.

## Environmental services fee

A fixed environmental services fee is collected from each enrolled student to fund environmentally related projects/activities on campus.

## Property damage deposit

Each student who enrolls pays a property damage deposit that is refundable upon final withdrawal or graduation provided that money is not owed to the university.

## Fees related to instruction

Instructional fees fall into three fee categories: academic fees, laboratory fees and special service fees. Please note that for billing purposes, these fee categories are grouped together and billed as one instructional fee.

Instructional fees are due at the time of registration or the payment deadline for early registered students. These fees are refundable according to the university refund policy. If a student desires to know what portion of an instructional fee falls into each category listed below, they may contact Student Accounting and University Cashiering Services at 940-565-3225.

## Academic fees

Academic Fees are assessed at the college/school level based on the estimated costs of goods and services related to instruction at the college/school level. Academic fees are charged to cover consumable supplies, syllabi, tests, classroom guest lecturers, salaries and wages of employees who assist in the preparation, distribution, and supply of classroom materials and some equipment purchases related directly to student participation in the classroom.

## Laboratory fees

Laboratory fees are only applicable to courses that require students to register for a laboratory section. Laboratory fees are collected to cover the cost of materials and supplies used by students in the laboratory. The laboratory fee may not be less than $\$ 2$ nor more than $\$ 30$ for any one term/semester or summer session.

## Special service fees

Special service fees are collected to help offset the cost of materials and services a student is eligible to receive while enrolled in a course. These fees are directly related to classroom, laboratory or practicum activity and may cover the wages of employees who assist in the instructional process such as models, tutors, proctors or laboratory assistants.

The chart below shows the typical breakdown of course fees charged by UNT. Fees are subject to change. Visit www.unt.edu/tuition for current fee information.

| Amount of <br> Fee* | Number of Courses* |
| :--- | ---: |
| $\$ 0.00-\$ 30$ | 2,800 |
| $\$ 30.01-\$ 50$ | 541 |
| $\$ 50.01-\$ 100$ | 1,292 |
| $\$ 100.01-\$ 150$ | 182 |
| $\$ 150.01-\$ 200$ | 105 |


| $\$ 200.01-\$ 250$ | 52 |
| :--- | :---: |
| $\$ 250.01-\$ 300$ | 4 |
| $\$ 300.01-\$ 350$ | 12 |
| $\$ 350.01-\$ 400$ | 12 |
| Over \$400 | 29 |

*Fees based on information available for Fall 2015. Fees for Fall 2016 are expected to be comparable. Fees are subject to change.

## Admission application fee

All undergraduate applicants to the University of North Texas must pay a $\$ 75.00$ (U.S. resident and permanent resident alien) or \$75.00 (all others, i.e., international students) non-refundable admission application fee. The fee must be paid in U.S. dollars.

## Late application fee

Undergraduate students applying after the application deadline must submit a $\$ 90$ application fee.

## Credit by exam fee

UNT awards undergraduate college credit on the basis of local and national examinations, subject to general limitations. Examinations are offered by several UNT departments. A $\$ 53.00$ fee is collected from those students who take credit by examination at UNT.

## National Student Exchange fee

A fee of $\$ 200$ is paid by students from UNT who apply for an exchange to another university through National Student Exchange.

## NSE incoming student fee

A fee of $\$ 25$ is paid by students coming to UNT on exchange from another university through the National Student Exchange.

## Universities Center at Dallas fee

Students enrolling for upper-division undergraduate courses or graduate courses offered by the partner universities of the Universities Center at Dallas may enroll at their home institution for courses offered by the other UCD universities. UCD is located in downtown Dallas. Please visit https://studentaccounting.unt.edu/explanation-fees for current per credit fee.

## Collin Higher Education Center fee

Students enrolling in undergraduate or graduate courses offered at the Collin Higher Education Center (CHEC) are assessed a Collin Higher Education Fee. The CHEC, a partnership with Collin County Community College, is located at 3452 Spur 399, McKinney, Texas. Please visit https://studentaccounting.unt.edu/explanation-fees for current per credit fee.

## Option to pay tuition by installment

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

UNT provides for the payment of tuition and fees during the fall and spring terms/semesters through the following alternatives:

1. Full payment of tuition and fees upon registration or by the payment deadline for early registration; or
2. Selection of the installment plan. By selecting the installment plan, the student understands that it is a contractual agreement and agrees to make the installment payments by the due dates indicated.
Tuition and fees must be paid in full for each summer term upon registration or by the payment deadline for early registration. Tuition payment by installment is not offered during the summer.

## Non-refundable fee for tuition by installment

Handling fee: \$20.00
Note: A $\$ 20.00$ non-refundable handling fee will be charged to the student's account each semester the installment plan is selected. Students who choose the installment plan option recognize they are in a contractual relationship and accept the terms of the installment plan contract.

A student who fails to make payment of tuition and fees (including any incidental fees) by the due date may be prohibited from registering for classes until full payment is made. A student who fails to make payment prior to the end of the term/semester may be denied credit for the work done that term/semester.

See Student Accounting and University Cashiering Services at studentaccounting.unt.edu for procedures and policies concerning installment payment of tuition.

## Tuition and fee payments

Credit card payments (MasterCard, Visa, American Express and Discover) and check payments may be made through self-service at my.unt.edu. Effective January 2015: credit and debit card payments will be assessed an additional $2.7 \%$ service fee to cover the processing cost for the payment. Electronic checks are accepted with no additional fee.

Tuition and fee payments also may be made by personal check, money order, cashier's check, or cash at the Eagle Student Services Center. Student Accounting and University Cashiering Services requires the student identification number to be recorded on all check and money order payments made in person.

Bills are not mailed for registration. Account balances and schedule information may be obtained through self-service at my.unt.edu.

## Cash payments

Cash payments are accepted at Student Accounting and University Cashiering Services in the Eagle Student Services Center. Please do not mail cash payments.

## Tuition and fee policies

Tuition covers undergraduate and graduate work. Tuition and the various fees provide limited health services and admission to universitysponsored 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 www.unt.edu/tuition.

## Full-time tuition rate information

## (Timely graduation tuition program)

At UNT, full-time undergraduate students pay the same amount for university tuition and fees in a fall or spring semester regardless of how many hours they take. Students are considered full-time once they register for 12 hours or more. More information is available at studentaccounting.unt.edu.

## Student financial obligation agreement

Each semester, prior to registering for classes, a student is required to accept the Student Financial Obligation Agreement. For additional information, visit studentaccounting.unt.edu.

## Tuition charged for excess and repeated credit hours

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 prior to the 1999 Fall Semester are exempt. Please refer to www.unt.edu/registrar/Excesshours.htm for specific information.

Undergraduate students who enroll in the same course more than twice will be charged additional tuition amounts. Please refer to www.unt.edu/registrar/Repeated_Courses.htm for specific information.

## Residency regulations for tuition purposes

Rules and regulations for determining residence status are specified under Title 19, part 1, chapter 21, subchapter B of the Texas Education Code and are available at the Texas Higher Education Coordinating Board, College For All Texans web site at www.collegeforalltexans.com. In general, students must domicile and physically reside in Texas for the 12-month period immediately preceding their initial registration in an educational institution in Texas. Other factors may be considered for residency determination for tuition.

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. Admission requirements for nonresidents are the same as for resident students. Effective Fall 2015, 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. Refer to "Tuition and Fee Waivers" in this section for further information.

## Responsibility of the student

The student is responsible for knowing residence status and for registering under the proper status. Any questions concerning residence must be discussed with the proper authority in the Office of Admissions and/or Registrar's Office prior to registration.

Any student erroneously 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.

## Change of status nonresident to resident

A student who is at any time classified as a nonresident retains nonresident status until reclassification as a resident is applied for and officially approved by the Registrar.

## Change of status resident to nonresident

Students who are classified as residents but become nonresidents by virtue of any change of domicile must notify the Registrar of such change immediately. Students who believe they have been erroneously classified have the opportunity for appeal. The appeal is to be made to the authority by whoever the original classification was assigned, either in the Office of Admissions or Registrar's Office.

## Tuition and fee waivers/exemptions

Several exemptions and waivers are available to qualifying students who meet the specific state requirements for each individual waiver or exemption. Brief descriptions of these are listed below. Waiver/exemptions refunds must be requested during the term/semester application is made. Such requests must be made prior to the 12th class day in long terms/semesters, the 4 th class day in the summer sessions (except 3W1), 2nd class day in 3W1. Requests for retroactive refunds are not honored. Information regarding waivers and exemptions is available at Student Accounting and University Cashiering Services or at studentaccounting.unt.edu. Posted waivers/exemptions are subject to post audit and correction.

## Exemptions and waivers

For a complete list, please see: https://studentaccounting.unt.edu/waivers-and-exceptions.

## Tuition and fee refunds

A student who drops a course or withdraws from the university within certain time periods may be entitled to a partial refund of tuition and fees. These refunds are calculated according to the category and time schedule listed at https://studentaccounting.unt.edu/class-drop-and-withdrawalrefunds. Refund 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 refunds will be made.

## Class drop refunds

Refunds are made for any course dropped through the 12th class day for the long semester. Corresponding dates are set for summer terms/sessions. See the Academic Calendar at www.unt.edu/catalog/calendar.htm for specific dates. The semester's first class day is always the first official university day of classes and not the first day of an individual's class. Refunds for dropped classes are processed after the midsemester. Note: If all classes for the semester are dropped, see "Schedule of Withdrawal Refunds" in this section.

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

## Withdrawal from the university

Withdrawal refunds are determined by the number of enrolled semester credit hours at the time of withdrawal. 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 percentages of refund shown below pertain to total withdrawal from the term/semester and are mandated by the state legislature. The term/semester's first class day is always the first official university day of classes and not the first day the individual attends class. A withdrawal refund is based on the day of withdrawal, regardless of the date the class first meets.

Additional information may be found at studentaccounting.unt.edu or by contacting Student Accounting and University Cashiering Services.
The withdrawal schedule and percentage of a pro-rata refund pertain to total withdrawal from the term/semester and are mandated by federal law. Please contact Student Financial Aid and Scholarships regarding pro-rata refund schedules and percentages.

## Schedule of withdrawal refunds, 2016-2017

Please see: https://studentaccounting.unt.edu/class-drop-and-withdrawal-refunds.
*Note: Some fees are non-refundable.

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

## Refund of property damage deposit

Each student who enrolls pays a property damage deposit that is refundable upon final withdrawal or graduation provide that money is not owed to the university.

## 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 number of semester credit hours earned exclusively by examination in excess of 9 semester credit hours is treated 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 tuition rebates, contact the Registrar's Office or your academic advisor.

## General financial policies

UNT is a state-assisted institution subject to state laws. Extension of credit is prohibited and all financial obligations to the university must be paid when due. Tuition, fees, and room and board are subject to change by action of the Texas Legislature or the Board of Regents of UNT.

## Correction of errors

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

## Payments by third party

Checks issued by a third party in payment of a student's tuition, fees or other charges made by UNT 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 the university.

Upon receipt of a returned check, notification is mailed to the issuing party 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 on or before 10 working days from the date of the notice. Only cash, cashier's check or money order is accepted for payment of the returned check and service charge ( $\$ 25$ per check).

A student may be withdrawn immediately from the university if payment is not made within the stated time period. DO NOT stop attending classes unless you receive official notification of your withdrawal. Notification of withdrawal is made to the address on the check and/or the address in the official university records.

Check-issuing privileges are suspended while any returned check and/or service charge are outstanding.
If the university receives three or more returned checks during an academic year, the check-issuing privileges of the individual are revoked.

If all attempts to collect a returned check have failed, civil or criminal legal action may be taken in accordance with Texas state law (Sections 31.06 and 32.41 of the Texas Penal Code).

## Stop-payment on tuition checks

A student who has not already done so will be withdrawn from UNT on the date the returned stop-payment check is received by UNT. A returned check service charge ( $\$ 25$ per check) will be assessed. Tuition refund charges are based on normal refund policy.

If a student wishes to be withdrawn, the Dean of Students Office should always be contacted as soon as possible.

## Financial Assistance

Student Financial Aid and Scholarships at the University of North Texas offers a variety of options to assist students in financing their education. For more information on financial aid and scholarships at UNT, please visit financialaid.unt.edu, come by our offices in the Eagle Student Services Center, or call 940-565-2302.

## Aid application period and deadlines

The Free Application for Federal Student Aid (FAFSA) or Renewal FAFSA is available each January 1 for the upcoming UNT academic year (fall, spring, summer). Students are encouraged to apply online at www.fafsa.gov. Students whose application files are completed by priority deadlines are ensured first consideration for awards. Application data (from the FAFSA or Renewal FAFSA) is received electronically from the Central Processing System (Federal Student Aid Programs) through which applications are processed. The application data must reach our office before a file can be processed.

## UNT's Priority Deadlines:

- Fall/spring term/semester: March 15
- Spring term/semester only: August 15
- Summer term/semester: February 15

A separate UNT summer application must be completed for summer financial aid. This application 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.

## General aid eligibility requirements

Before any assistance is granted (Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal TEACH Grant, Federal Work-Study, Federal Perkins Loan or loans from the Federal Direct Loan Program), general eligibility and program requirements must be met. To be eligible for financial aid students must:

- establish eligibility by completing and submitting the Free Application for Federal Student Aid (FAFSA) or Renewal Application;
- not be in default on any Title IV loan (Federal Perkins, PLUS, Federal PLUS or Federal Stafford), or owe a refund or repayment on educational funds received at any institution;
- be a U.S. citizen or eligible noncitizen*;
- be registered with the Selective Service if you are a male at least 18 years old born after December 31, 1959 (most males between the ages of 18 and 25, including permanent residents and other eligible noncitizens, are required to register with Selective Service);
- enroll in and maintain at least a half-time class load;
- use all funds received through financial aid for educational purposes;
- be accepted for admission by the university and enrolled in a degree or certification program;
- be making satisfactory academic progress (SAP);
- have a valid Social Security Number;
- have a high school diploma or a GED (general equivalency diploma); and
- not be convicted for the possession or sale of illegal drugs for an offense that occurred while receiving federal student aid.

Note: Visiting/transient students are not eligible for financial aid.
*Non-documented students may qualify for state assistance under Texas Senate Bill 1528. Students should visit financialaid.unt.edu for more information.

## Special conditions for financial aid applicants

## Enrollment

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.

Financial aid recipients must notify Student Financial Aid and Scholarships (SFAS) before dropping courses. Current award year or future aid eligibility may be affected.

Enrollment hours for financial aid eligibility and loan deferment may differ. Students needing certification of enrollment for loan deferment purposes should visit the UNT Registrar's Office. Also see "Enrollment Certification" in the Enrollment section of this catalog.

## Official withdrawal from UNT

If a student has registered for classes and decides not to attend UNT, he or she must notify both Student Financial Aid and Scholarships (SFAS) and the Dean of Students Office as early as possible.

If circumstances require that the student withdraw from all classes, SFAS strongly encourages the student to contact his or her academic advisor and Student Financial Aid and Scholarships before making the final decision. The consequences of withdrawing from all classes can be explained and clearly illustrated.

If the student has already made the decision to withdraw, he or she must begin the withdrawal process with UNT's Dean of Students Office. For online information on how to drop a course or withdraw from UNT, including official dates and deadlines, please visit the UNT Registrar's Office's Schedule of Classes.

If a student officially withdraws, ceases attendance, or is administratively withdrawn from UNT, federal regulations require post-secondary institutions to calculate the amount of Federal Title IV funds (aid) earned during the term from which the student withdrew. Factors considered in this federally mandated calculation include: number of days in the payment period, date of withdrawal/number of calendar days the student attends before total withdrawal as determined by SFAS (excluding scheduled breaks of at least 5 days in length), the total amount of Title IV aid eligibility, tuition and fee charges, on-campus room and board charges (if applicable), and class attendance.

The percentage of time spent in attendance is the percentage of federal funds the student has earned. Other funds received are unearned.

After Student Financial Aid and Scholarships personnel applies the federally mandated calculation, unearned Federal Title IV funds (aid) will be returned to the programs from which the money was paid to the student (or parent) in the following order:

- Unsubsidized Direct Stafford Loans
- Subsidized Direct Stafford Loans
- Federal Perkins Loans
- Direct Grad PLUS Loans
- Direct Parent (PLUS) Loans
- Federal Pell Grants
- TEACH Grants
- Iraq Afghanistan Service Grants
- Federal Supplemental Educational Opportunity Grants (FSEOG)
- Other Title IV Programs
- Other Federal, State, Private or Institutional Student Aid

It is possible the student will owe a repayment of unearned financial aid funds to the university if he or she ceases attendance prior to the sixty percent ( $60 \%$ ) completion point of any payment period for which the student has received financial aid funds. The completion point is based on the total number of class days in a payment period. If it is determined that the student owes a repayment of funds, he or she will receive notification from SFAS. The student can also check the balance owed through the myUNT student portal. Students who owe a balance to UNT from a previous academic year will not be disbursed aid until the balance owed is paid. Official transcripts are not released to any student who has an unpaid account or has defaulted on loans received from any university.

## Summer term official withdrawal from UNT

For Title IV (Federal Aid) purposes, a student who has enrolled in a session(s) offered in the summer semester and does not complete the session(s) in which he was enrolled is considered to have withdrawn and a Return to Title IV calculation (R2T4) will be completed. Students will not be considered to have withdrawn for the summer semester if:

- The student gives the Student Financial Aid and Scholarships office at UNT written confirmation that they will attend a session that begins later in the summer semester. The written confirmation must be provided at the time that would otherwise have been a withdrawal.

That student may change the date of their attendance in a later session than originally indicated, provided that:

- The later session begins in the summer semester;
- The student makes the change in writing prior to the date they had previously confirmed.

If the student does not attend the later session(s), the date of withdrawal from the previous session will be used as the official withdrawal date to determine the amount of Title IV aid to be returned to the U.S. Department of Education (R2T4 calculation).

## Basic calculation example

- Payment period is 113 calendar days. Student attends and participates in academically related activities for 54 days and then withdraws.
- Student stayed 47.8 percent of the number of payment period days. 52.2 percent was unearned.
- Student tuition and fees for payment period totaled \$547.20.
- Federal Title IV funds (aid) disbursed to the student during payment period


## O \$1,312.00 Subsidized Direct Stafford Loan

O \$1,562.00 Federal Pell Grant
O \$2,874 total 47.8 percent equals $\$ 1,373.77$ earned aid

- $\quad$ Since earned aid is less than disbursed aid, funds must be returned to the programs from which they were paid to the student (or parent).
- $\quad \$ 2,874$ disbursed aid minus $\$ 1,373.77$ earned aid equals $\$ 1,500.23$ unearned aid.
- It is assumed by regulations that Federal Title IV funds (aid) paid for institutional charges (tuition/fees and room/board if applicable).
- The school pays the lesser of the total unearned $(\$ 1,500.23)$ aid or the unearned institutional charges $\$ 547.20$ multiplied by 52.2 percent equals \$285.64
- The college must return $\$ 285.64$ to the lender since the loan funds are returned before grant funds and the school pays its share first.
- Once the school repays its unearned share (\$285.64), the remaining unearned share ( $\$ 1,214.59$ ) must be returned (repaid) by the student.
- Of the remaining loan amount to be paid (\$1,026.36), the student by regulation will repay the usual monthly repayment by the terms of the loan promissory note. Therefore, there is no immediate repayment of loan funds to the lender.
- The remaining amount of the student's unearned share ( $\$ 1,214.59$ minus $\$ 1,026$ ) is $\$ 188.23$; however, by regulation, 50 percent of all Federal Title IV grant aid disbursed plus Federal Title IV grant aid awarded that could have been disbursed is protected. In this example, the Federal Title IV grant aid awarded was \$1,562 in Federal Pell Grant and it was all disbursed. Therefore, \$1,562 multiplied by 50 percent equals $\$ 781$ is protected.
If circumstances allow the student to remain in school past the sixty percent (60\%) completion point of any payment period, then there is a definite advantage. No calculations are required for students who attend past the 60 percent completion point. There will however be other consequences to consider. Withdrawing from classes will affect future eligibility for financial aid and possibly affect future scholarship disbursements. Student must meet satisfactory academic progress (SAP) requirements to maintain eligibility for financial aid as defined by Student Financial Aid and Scholarships.

Students who do not officially withdraw through the UNT Dean of Students Office/cease attending class are also subject to the federally mandated calculation described above. If the student's last date of attendance in an academically related activity is unknown to the school, then the student's last date of attendance used in the federally mandated calculation will be the midpoint of the payment period.

Financial aid is awarded to students with the expectation that they will attend classes for the entire payment period and that they will make progress toward a degree. If the student receives all failing grades (any combination of Fs, WFs and NPs), SFAS is required to calculate the amount of Federal Title IV funds (aid) earned during the term in which all failing grades were received. The student will be required to have at least one of the student's instructors e-mail SFAS the student's last date of attendance in an academically related activity. If the instructor provides SFAS with the student's last date of attendance by the prescribed deadline, then SFAS will use this date as the student's withdrawal date in the federally mandated calculation described above. If the student's last date of attendance in an academically related activity is unknown to the school by the prescribed deadline, then the student's last date of attendance used in the federally mandated calculation will be the midpoint of the payment period or the equivalent date for summer sessions of enrollment.

If it is determined that the student never attended any of the classes for which the student (or parent) was paid, then the funds (aid) are considered to have not been earned. As a result, all funds (aid) will be canceled and returned to the programs from which they were awarded. The student will then owe a complete repayment to the university.

For full policy information, please view consumer information for Return of Title IV funds.

## Unofficial withdrawal from UNT

Unofficial withdrawals encompass all other withdrawals where official notification is not provided to UNT. When a recipient of Title IV grant or loan assistance unofficially withdraws from an institution, after having begun class attendance during a payment period or period of enrollment, the institution must determine the amount of Title IV grant or loan assistance that the student earned up to the date of withdrawal. For these unofficial withdrawals, commonly known as dropouts, the withdrawal date is the midpoint of the payment period or the equivalent date for summer sessions of enrollment, as applicable, or the last date of an academically related activity in which the student participated.

If a student who began attendance, does not officially withdraw, and subsequently fails to earn a passing grade in at least one course offered over an entire period, the institution must assume, for Title IV purposes, that the student has unofficially withdrawn, unless the institution can document that the student completed the enrollment.

If a student receives Title IV grant or loan assistance and does not begin attendance in a payment period or period of enrollment, the student is considered to be ineligible for any Title IV aid.

Unofficially withdrawing from classes, not beginning attendance or failing to complete and pass registered hours may affect future eligibility for financial aid. Satisfactory academic progress requirements must be met to maintain eligibility for financial aid as defined by Student Financial Aid and Scholarships.

## Satisfactory academic progress

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 in both pace of progression and qualitative measures. Students must successfully complete at least $67 \%$ of cumulative attempted credit hours to be meeting the pace of progression requirements. Pace is measured by dividing the cumulative number of hours successfully completed by the cumulative number of hours attempted.

The minimum cumulative UNT grade point average for undergraduate students is 1.8 for the first term and a 2.0 for all subsequent semesters.

## Maximum hour limit

In addition to meeting pace of progression and qualitative measures, undergraduate students cannot exceed hours above 150 percent of their required degree plan. The maximum includes all hours registered for, earned or attempted at any institution of higher education. This includes hours dropped, withdrawn from, failed, duplicated or never completed. It also includes hours earned in the Armed Forces.

All academic requirements are effective whether or not financial aid has ever been applied for or received. Students should visit financialaid.unt.edu for the latest information regarding satisfactory academic progress and the appeal process.

## Minimum hour limit

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.

## Failing grades

If a student receives all failing grades (any combination Fs, WFs and NPs), attendance in all classes will be reviewed. If attendance cannot be confirmed via official UNT Registrar records, or the last date the student participated in an academically related activity cannot be documented, Student Financial Aid and Scholarships personnel will apply the federally mandated calculation for the return of financial aid funds. Unearned Title IV funds (aid) will be returned to the programs from which the money was paid to the student (or parent), and it is possible that the student will owe a repayment to the university.

## Grant programs

A grant is a type of need-based aid that does not require repayment. Financial need is determined by the Free Application for Federal Student Aid (FAFSA).

At UNT, the only application needed annually to be considered for federal, state and institutional aid is the Free Application for Federal Student Aid (FAFSA). However, 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 Expected Family Contribution (EFC). The earliest applicants with a completed award file have the best opportunity to be considered for available grant funding. We encourage students to apply early, making sure to complete any requests for additional information so awards can be finalized.

For descriptions, amounts and eligibility requirements of federal, state and institutional grants offered at UNT, please visit financialaid.unt.edu.

## Emerald Eagle Scholars

The Emerald Eagle Scholars program provides access to higher education for academically talented students with high financial need, and connects them to campus resources while engaging them in activities that facilitate their intellectual engagement, academic success and, ultimately, the timely completion of their bachelor's degrees.

There are three program pillars that make the Emerald Eagle Scholars program a great benefit to new students. The Financial Support Pillar enables all Emerald Eagle Scholars to have the average cost of tuition and fees for 15 semester credit hours paid for through a combination of federal, state and institutional aid for a period of up to eight consecutive long semesters (or four years). The Academic Success Pillar sets high expectations for all Emerald Eagle Scholars requiring that all students complete 30 hours and maintain a 2.5 cumulative UNT GPA per academic year, all while being supported by various academic readiness programs on campus. The Campus Connection Pillar allows students to connect and take part in the richness of university life, while being guided by both peer and faculty/staff mentors and advisors.

To be eligible for the Emerald Eagle Scholars program, a student must be a Texas resident and an incoming freshman from a household with an adjusted family income that does not exceed $\$ 40,000$ per year. Continued eligibility is contingent on the student earning no less than 15 semester credits and no less than a 2.5 UNT GPA each fall and spring term. For additional information, please visit the Emerald Eagle Scholars web site at financialaid.unt.edu/emerald-eagle or visit the Emerald Eagle Suite located in Sage Hall, Room 235.

## Benefits for veterans

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

Current Educational Programs:

- $\quad$ Selected Reserves (Chapter 1606)
- Reserve Educational Assistance Program (Chapter 1607)
- Montgomery GI Bill ${ }^{\circledR}$ (Chapter 30)
- $\quad$ Post $9 / 11$ GI Bill ${ }^{\circledR}$ (Chapter 33)
- Survivors and Dependents Assistance Program (Chapter 35)

VA Certifying Officials at UNT are located in Sage Hall, Room 123 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.

## Hazelwood Act for Texas veterans

Information on tuition waivers for qualified veterans are available online at studentaccounting.unt.edu or at Student Veteran Services, Sage Hall, Suite 123.

## 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 halftime enrollment and maintaining satisfactory academic progress (SAP) standards as defined by Student Financial Aid and 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 15-20 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, applicant's skills, educational background and interest. Eligibility must be confirmed each term/semester to continue in the Federal WorkStudy Program.

## Career Center

The Career Center, located in Room 103 of Chestnut Hall, provides a variety of employment opportunities on and off campus to currently enrolled students in order to help them offset their college expenses and develop good employment records. For information, call 940-565-2105 or e-mail careercenter@unt.edu. Information regarding on- and off-campus jobs can be accessed on each student's my.unt.edu web site. Just click on the Eagle Network icon in the middle of the page and use your EUID and password.

## Loan programs

## Federal Perkins Student Loan

The Federal Perkins Student Loan provides low-interest loans to assist needy students with educational expenses. Awards are based upon available funds, established financial need, cost of attendance, at least half-time enrollment, and maintaining satisfactory academic progress (SAP) standards as defined by Student Financial Aid and Scholarships (SFAS). Annual and aggregate limits are imposed based upon undergraduate and graduate career statuses.

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

## Federal Direct Stafford Loans

Federal Direct Stafford Subsidized* Loans are awarded based upon established financial need, cost of attendance, at least half-time enrollment and maintaining satisfactory academic progress (SAP) standards as defined by Student Financial Aid and Scholarships (SFAS). Federal Direct Unsubsidized Stafford Loans, Parent PLUS Loan for undergraduate students and Grad PLUS for graduate students are awarded based on the same terms and conditions with the exceptions of demonstrating financial need. The Free Application for Federal Student Aid (FAFSA) must be submitted before an award will be determined. Maximum annual and aggregate limits are imposed based upon classification and dependency status.

Repayment begins six months after graduation or the last day of at least half-time enrollment.
*Effective Fall 2012, graduate and professional students are no longer eligible to receive subsidized loans.

## Scholarships

The University of North Texas offers competitive academic scholarships to entering freshmen, transfer and continuing students to assist with educational 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 term. We recommend students apply to UNT as early as possible.

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 Student Financial Aid and Scholarships (SFAS) coordinates all scholarship awards once they have been awarded.

## Incoming student scholarships

Most UNT scholarships for incoming students (entering freshmen and transfer students) are administered by Student Financial Aid and Scholarships (SFAS), 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 or university using academic information from their Application for Admission. Students are encouraged to also complete the annual SFAS General Scholarship Application, using their campus credentials assigned during the admission process (active EUID and password). This will ensure students are considered for the best scholarship opportunities available.

Scholarships available for incoming students include:

- UNT Meritorious Scholarships for National Merit Finalists
- UNT Terry Scholarships for Future Leaders of Texas
- UNT Excellence Scholarship
- UNT Transfer 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.

## Continuing student scholarships

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

Entering and continuing students may apply for a number of scholarships through the SFAS annual online General Scholarship Application. These scholarship awards are funded by donors that request SFAS administer their scholarships. The application is available annually in late fall. Students are encouraged to complete the application as early as possible. Applicants must use their campus credentials assigned during the admission process (active EUID and password) to submit an application.

We encourage students to visit the UNT Student Financial Aid and Scholarships' web site for the most up-to-date scholarship details at scholarships.unt.edu.

## Room and board

Room and board fees are subject to increase and decrease by action of the Texas Legislature and/or the Board of Regents of the University of North Texas. During 2016-2017, room and board based upon an air-conditioned, standard double occupancy room with a seven-day meal plan cost $\$ 8,679.05$ per year. In addition, a reduced standard rate will be offered to residents of College Inn and West Hall. Six newer hall choices are also offered. Room and board based upon an air-conditioned, newer hall single occupancy room with a seven-day meal plan cost $\$ 9,539.05$ per year during 2016-2017.

For information concerning fees charged for residence hall living, consult the UNT Tuition, Fees and Other Charges brochure printed for the particular academic year in which enrollment is planned or visit the Housing web site at housing.unt.edu.

## Campus resources

## Division of Student Affairs

The Division of Student Affairs (DSA) provides opportunities for students and the campus community to cultivate academic, personal and professional success. We enhance the student experience through a wide array of intentional programs, services and activities that support the life cycle of our students.

In addition, the division champions the overarching goals of the university by implementing programs essential to realizing UNT's mission and goals.

Departments and programs within the DSA include: Auxiliary Services, Career Center, Center for Leadership and Service, Counseling and Testing Services, Dean of Students, Dining Services, Gateway and Coliseum, Greek Life, Housing and Residence Life, Office of Disability Accommodation, Orientation and Transition Programs, Parent Programs, Recreational Sports, Substance Abuse Resource Center, Student Activities Center, Student Affairs Administration, Student Health and Wellness Center, Student Legal Services, Student Money Management Center, Student Veteran Services, and the University Union.

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

## UNT-International

UNT-International assists all students, citizens of the U.S. and of other countries, who wish to include an international experience in their education. UNT-International assists UNT administration, faculty, colleges and departments in the development and conduct of international education activities and programs on and off campus. UNT-International also directs and supports activity of six constituent units. Most units are located on the first floor of Marquis Hall (web site: www.international.unt.edu).

The Intensive English Language Institute provides English and academic skills instruction to students whose first language is not English. Contact 940-565-2003 or come by Marquis Hall, Room 145 or visit www.international.unt.edu/ieli.

The International Recruitment Office assists prospective students from their first contact until they are admitted to the university. Contact $940-$ 369-7624 or come by Marquis Hall, Room 114 or visit www.international.unt.edu/futurestudents.

The International Student and Scholar Services Office assists students and scholars with matters related to immigration and maintaining student status. Contact 940-565-2195 or come by Marquis Hall, Room 125 or visit www.international.unt.edu/advising.

The International Center is a "home away from home" for international students. It provides orientation programs and campus and community information and activities. Contact 940-369-8625 or come by Marquis Hall, Room 110 or visit www.international.unt.edu/welcome.

The Sponsored and Special Programs Center tailors programs for UNT international students sponsored by governments, agencies, businesses or other universities; provides special orientations, and personal and academic counseling; and reports academic progress to sponsors with direct invoicing for tuition and fees. Contact 940-565-2196 or e-mail sspc@unt.edu or come by Marquis Hall, Room 106 or visit www.international.unt.edu/sspc.

The Study Abroad Office (SAO) encourages study experience all over the world. It assists faculty, staff and students with exchanges, program selection, and travel logistics. The office is a U.S. Passport Acceptance Facility. SAO also hosts exchange students from other countries on the UNT campus. U.S. students wishing to transfer credits from international institutions should contact the SAO for pre-approval. Contact 940-5652207 or come by Sage Hall, Room 236 or visit www.international.unt.edu/studyabroad.

## International student health insurance requirement

Since 1982, UNT has required all international students to have medical insurance. Consequently, all international students are automatically assessed for the UNT-offered health plan each semester at registration.

There are only three instances when a student may receive a waiver from the UNT-offered health care plan:

1. an international student has a government sponsored plan (these waivers are processed in the Sponsored Student Office in Marquis Hall, Room 202),
2. an international student has insurance through a U.S. employer group policy, or
3. an international student is a dependent on a parent or relative's U.S. employer group policy.

Students who request an insurance waiver will be required to go to the Student Health and Wellness Center Billing Department and complete a Waiver Request Form in addition to showing proof of coverage that is either government sponsored or is provided by a U.S. employer group policy. Supplementary insurance to cover medical evacuation and repatriation will also be required. Information and directions are provided for purchasing medical evacuation and repatriation coverage when presenting waiver request. A waiver will not be granted until proof of group insurance and medical evacuation and repatriation is shown. Waivers are processed each semester up until the official 12th class day.

International students eligible for UNT employee insurance are sent an e-mail from the Business Services Center Benefits Office with instructions on how to enroll in employee coverage. If the student is in the mandatory 90-day waiting period for UNT employee insurance, the student will wait until the following semester to waive the UNT-offered student insurance.

Questions about the UNT-offered health plan or about a waiver from the plan should be addressed to the Student Health and Wellness Center, Chestnut Hall, Room 205 or 940-369-7758.

## 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/or tested for TB within the first three weeks after the 12th class day of their first term of study on the UNT campus or provide documentation of a previous TB test with results. For more information, please visit the Student Health and Wellness Center web site at healthcenter.unt.edu or call 940-565-2333.

## Student services, activities and information

## Adaptive Computer Lab

Any UNT student, faculty or staff member with a valid UNT ID card can use the Adaptive Computer Lab facilities. Students registered with UNT's Office of Disability Accommodation (ODA) have preemptive privileges when the lab is full or when specific adaptive equipment is needed. Students are encouraged to visit the lab early in the semester and become familiar with equipment and services. The lab has adaptive consultants on duty for hands-on help and training.

The Adaptive Computer Lab is located in Sage Hall, Room 153. To contact the Adaptive Computer Lab, call 940-565-3048, TDD Access through Relay Texas: 800-735-2989, or write to:

Sharukh Mithani, Manager
Adaptive Computer Lab
Computing Center
University of North Texas
1155 Union Circle \#305398
Denton, TX 76203-5017
E-mail: Sharukh.Mithani@unt.edu

The lab may be accessed through the Internet (www.unt.edu/ACSGAL/).

## Athletic organizations and activities

Intercollegiate Athletics and Recreational Sports at UNT offer a wide range of opportunities for recreation. Accessible sports facilities include the Pohl Recreation Center with two swimming pools, four gymnasiums, an indoor soccer court, 45-foot tall climbing wall, weight room and cardio area, $1 / 8$ mile indoor track, group exercise rooms, Smoothie King and lounge area. The Waranch Tennis Complex has 12 lighted tennis courts.

The Physical Education Building also contains handball/racquetball courts.

## North Texas Athletics

North Texas Athletics is a vital component of university life. The Mean Green athletic program provides a rallying point for fans, friends and, most importantly, students of the University of North Texas. A student's collegiate experience would not be complete without having enjoyed the opportunity to: tailgate with friends and family; stand and cheer on the Mean Green as they take the field or court prior to competition; and sing "Glory to the Green" immediately following the conclusion of an athletic event.

Mean Green Athletics strives to be a university partner and works diligently with multiple aspects of the university in order to enhance students' participation and enjoyment of the collegiate experience. Students are admitted free to all athletic events with a valid student ID.

The University of North Texas competes at the Division 1 level of the National Collegiate Athletic Association and is a member of Conference USA. The university is represented by athletic teams in the following sports: basketball, women's basketball, men's and women's cross country, football, men's and women's golf, soccer, softball, swimming and diving, tennis, track and field (indoor and outdoor), volleyball. North Texas Athletics resides in the 46,000 -square-foot Athletics Center, which houses administrative and football coaches' offices, a football locker room, team meeting rooms, strength and conditioning facilities, and sports medicine facilities.

Apogee Stadium provides amenities that attract today's fans looking for the ultimate game day experience, including 21 luxury suites, club level with chair back seating, giant video screens and generous tailgating and staging areas. The new stadium is the first collegiate football stadium designed by award-winning HKS Inc., the same architectural firm that designed the new Dallas Cowboys stadium. And in accordance with UNT's commitment to create a sustainable campus, strict Leadership in Energy and Environmental Design (LEED) standards were followed in making this the nation's first collegiate football stadium to earn platinum certification from the U.S. Green Building Council.

Mean Green athletics teams have captured numerous Conference championships as well as receiving national recognition by appearing in four consecutive football bowl games from 2001-04 and the NCAA men's basketball tournament in 2007 and 2010.

## Career Center

Within the Career Center, Student Employment (SE) assists students in their job search by providing employment opportunities both on- and off-campus year round. Students who have been accepted to UNT and are currently enrolled or who have been enrolled within the previous year are eligible to access student employment services. The Career Center assists students in identifying local jobs on or off campus. Students with a preference working off-campus should find numerous opportunities in the Dallas-Fort Worth region posted through the Career Center. Some oncampus jobs may include:

- aerobics or swimming instructors,
- assistants in computer labs or the libraries,
- cashiers, cooks or dishwashers in residence hall cafeterias,
- clerical jobs in academic departments or non-academic areas such as the Registrar's Office,
- desk clerks or resident assistants in residence halls,
- lifeguards, or
- referees for intramural sports.

If students choose to work on campus, we recommend scheduling classes to have three to four hours available during the day. This allows students to work 15 to 20 hours per week. Some departments are flexible with schedules, but others may prefer students to work in the morning, mid-day or afternoons.

On- and off-campus job openings are advertised on the Eagle Network portal, which is available to all students, or by visiting careercenter.unt.edu. The Career Center also hosts part-time job fairs each August and January for students seeking off-campus employment as well as positions available on campus. Once a student is hired for an on-campus position, the student is eligible to sign up for C.A.S.A. (Creating a Service Attitude) which is a customer service training opportunity in the Eagle Edge program.

Students may receive more information about Student Employment as well as learn how to register for the Eagle Network portal by calling 940-565-2105 Monday through Friday, between 8 a.m. and 5 p.m. or by visiting the Career Center in Chestnut Hall, Room 103.

The Career Center provides the following services to students in all degree programs and at every degree level: undergraduate, master's and doctoral.

In-class presentations and guest lectures are offered on career-related topics, including "Resume Writing," "Interviewing Skills," "Using Social Media in Your Job Search" and "What Can I Do with a Major In ...?"

Career planning and job search resources can be found at careercenter.unt.edu. These resources assist students and alumni in assessing their career interests, exploring career options and accessing relevant information for making career-related decisions.

Career advisors assist students and alumni in career exploration and research, resume writing, interview preparations, career transitions and general job search strategies through individual advising.

A web-based career services job listings system (Eagle Network) contains current job vacancy announcements from UNT-friendly employers. Students and alumni must formally register with the Career Center in order to utilize this service.

More than 1,000 employers come to UNT each year to conduct on-campus employee recruiting and on-campus interviews. The Career Center links student and alumni job seekers with hiring professionals. More than 100 school districts and 900 business, industry, government and public service employers visit campus annually. Registration for on-campus interviewing is required through the Eagle Network.

All services and resources the Career Center offers are provided at no cost to students and alumni.

The Career Center is located in Chestnut Hall, Room 103. The Career Center is available by telephone at 940-565-2105 and on the web by visiting careercenter.unt.edu.

## The Center for Leadership and Service

The Center for Leadership and Service provides opportunities and programs to assist students in becoming engaged leaders in the community. Programs include leadership workshops and conferences, short-and long-term service programs, and opportunities for students to engage in leadership positions on campus. The Center for Leadership and Service is located in the Union, Third Floor. For more information call 940-5653021.

## The Coliseum

The Coliseum is a multipurpose facility with accommodations for center arena events $(10,705)$, theater presentations $(3,400-5,200)$, banquets $(1,100)$, concerts $(3,400-8,200)$, commencements, athletic events, workshops, dances, camps and competitions. For information regarding Coliseum reservations, contact the Coliseum director's office at 940-565-2557.

## Off-Campus Student Services

Part of Student Activities, Off-Campus Student Services (OCSS) functions as a resource for UNT's off-campus, commuter, non-traditional, graduate and online students. Resources include an off-campus housing and roommate search database, child care resource and referral service, and information about transportation services (e.g., carpooling, bus schedules). OCSS also coordinates events for these populations, including Commuter Week, Housing Fair, Family Fun Night, and Non-Traditional Student Week.

Off-Campus Student Services is located in the Student Activities Center, University Union, Room 345. Call 940-565-3807 or visit offcampus.unt.edu for more information.

## Counseling and Testing Services

The center provides short-term, confidential, professional psychological services to currently enrolled students. Individual counseling related to personal, social and emotional concerns; vocational counseling for help with selection of a major field of study or career plan; educational counseling; and couples counseling are offered at the center. Outreach programs and consultation are available for faculty/staff and student groups.

In addition to the vocational interest, personality and other tests used in counseling, the center is also a national testing center and administers computer-based testing for the GRE, CLEP, TOEFL and Accuplacer. Information and application forms for various national tests are available in the center's office.

The Counseling center is in Chestnut Hall, Room 311, or call 940-565-2741.

Testing Services, such as computer-based testing, is in Gateway Center, Room 140, or call 940-369-7617; or visit www.counselingandtesting.unt.edu.

## Dean of Students

The Dean of Students Office fosters the development of leadership, civility, accountability and responsibility in the University of North Texas student; builds community through service and involvement; and serves as an advocate for all students. This office is dedicated to supporting the UNT student who may need assistance in resolving complex social, personal, financial and academic matters. We strive to help all students achieve their academic and personal goals and enhance the UNT student experience.

One of the primary aspects of the Dean of Students Office is to help students resolve university-related issues. Through the SOS (Seeking Options and Solutions) Program, the office assists students and their families in navigating diverse concerns, as well as identifying resources for personal, academic, financial and social issues. We can assist students with absence verification, class absences, pregnancy assistance, medical withdrawals, military activation of enrolled students, temporary disabilities, and temporary illness.

Student Conduct: The Dean of Students (DOS) is responsible for addressing student conduct, enforcing university policies and procedures, and providing students with the resources necessary to resolve their own personal disputes. DOS administers student disciplinary procedures in accordance with the Code of Student Conduct and maintains official disciplinary records. However, emphasis is placed on educating students about their rights and responsibilities as members of the University of North Texas community. In addition, DOS seeks to educate the campus community through literature and training about the services it offers. The office provides policy interpretation and rights adjustment as well as handling complaints against students. DOS is committed to enhancing students' competencies as productive citizens and promoting life-long learning and community standards.

The University of North Texas is committed to providing a safe environment for all community members. Dating violence, domestic violence, sexual harassment, sexual coercion, sexual exploitation, sexual violence, and stalking are prohibited. Please see deanofstudents.unt.edu/sexual_violence_policies_sanctions_and_resources.

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. Renee can assist a student by filing protective orders, completing crime victim's compensation applications (she has gone through presumptive eligibility training), contacting professors for absences related to an assault, 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. You can contact her at survivoradvocate@unt.edu or at 940-565-2648.

Student Withdrawals: The Dean of Students Office is committed to helping students when they intend to withdraw for the semester. Students wishing to withdraw must do so in person at the Dean of Students Office during office hours. During their visit, students will obtain the official University Withdrawal form and meet with a staff member who will ensure students are informed of any pertinent implications related to their withdrawal. Students will also be informed of any obligations they may have with the university and items they may need to fulfill prior to withdrawing and/or upon returning to UNT.

Students may only withdraw from the first class day until the official last day to withdraw as indicated in the academic calendar which can be found at registrar.unt.edu. Please note that a withdrawal implies dropping ALL courses. Students wishing to drop classes but who will remain enrolled in at least one course can obtain drop slips from the Registrar's Office.

If by chance a student is incapacitated and the student cannot make the request on their own, the Dean of Students Office will assist. Verified documentation related to their condition will be required. For more information please contact the Dean of Students Office directly.

Student Complaints: The Student Standard 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. Students with questions concerning discrimination, grade appeal, academic integrity, disability, financial aid, accommodations, or the Code of Student Conduct must contact the appropriate academic personnel or compliance officer and refer to the appropriate policies.

The Dean of Students Office will assist 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 unless it is filed no later than 120 days after the event or occurrence giving rise to the complaint or knowledge of the event or occurrence. A student's complaint may be withdrawn at any point by the student, thereby halting the complaint.

Absence Verification: 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. The Dean of Students Office is also available to assist you with documenting your absences. Students must provide the Dean of Students with official and verifiable documentation related to the reason for absence. Once the absences have been verified the decision to allow a student to make up course work is left to the discretion of the professor and/or the department.

Authorized Class Absences/ Field Trips: All travel by students off the campus for the purpose of participation in athletics, music groups, AFROTC activity, dramatics, exhibitions, debate, student government, conventions and field trips must be authorized by the dean of the school or
college of the sponsoring department. Absence lists must be approved by the department chair and sent to the office of the dean in advance of the travel date. Sponsors must report to the Dean of Students Office all students listed who did not make the trip.

Within three days after the absence, students must obtain authorized absence cards from the Dean of Students Office for presentation to instructors of classes missed. Students with authorized absence cards may make up the work missed when practicable or be given special allowance so that they are not penalized for the absence. Additional information regarding Authorized Class Absences may be found in the Faculty Handbook.

Military Activation of Enrolled Students: The University of North Texas is deeply committed to supporting students who serve in the military. A student who is a member of the National Guard, Reserve or other branch of the United States Armed Forces and is unable to complete classes because of military activation may request course withdrawals, incompletes or grades, depending on the timing of the activation and the individual needs of the students. This will ensure understanding and standardized guidelines for awarding grades to students called to active military duty during an academic semester.

The student will be required to provide documentation of military orders to the Dean of Students Office and follow procedures for withdrawal. This will ensure understanding and standardized guidelines for awarding grades to students called to active military duty during an academic semester. Dean of Students will meet with the student to discuss options and consider all areas that affect the student upon withdrawal. If incompletes or grades are requested, the student will be referred to the faculty member or academic department for assistance. The Dean of Students will send notification to faculty, academic department and Associate Dean of the verification of military orders and student's preference for incomplete or grade assigned.

Per Texas Education Code 54.0006 (f) 3, either grades are assigned or incompletes granted. If a student receives an incomplete he/she will have one year from the end of their active duty to complete the course. The Dean of Students office will complete the official withdrawal of the student and full refund of appropriate tuition and fees. If student opts for an incomplete or grades are assigned, no refund will be given.

Pregnant and Parenting Students: The U.S. Department of Education and Office for Civil Rights released new Title IX requirements regarding pregnant and parenting students in June 2013.

The requirements and suggestions include:

Schools must excuse student's absences because of pregnancy or childbirth for as long as the student's doctor deems the absences medically necessary.

Absence policies in classes must accommodate pregnancy or childbirth related absences and allow for make-up work. "A teacher may not refuse to allow a student to submit work after a deadline that she missed because of absences due to pregnancy or childbirth. Additionally, if a teacher's grading is based in part on class attendance or participation, the student should be allowed to earn the credits she missed so that she can be reinstated to the status she had before the leave."
"A school may offer the student alternatives to making up missed work, such as retaking a semester, taking part in an online course credit recovery program, or allowing the student additional time in a program to continue at the same pace and finish at a later date, especially after longer periods of leave. The student should be allowed to choose how to make up the work."

The UNT Dean of Students Office will provide a Verified Absence slip for parenting students (both male and female) who need to take their children to doctors' appointments or to take care of their sick children as long as they provide proper documentation. Once the absence is verified, professors must accommodate these absences and allow for makeup work. Students needing this documentation should contact the Dean of Students Office.

Temporary Disabilities: Even temporary disabilities are not afforded the same consideration for accommodation and/or waivers that is provided under federal law for permanent disabilities. 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, pregnancy, etc.) and is in need of accommodation, they may contact the Dean of Students Office and request we advocate on their behalf. Student must submit proper documentation to the office. Upon receipt and verification, DOS will make contact with the student's professors confirming that the temporary disability exists. Ultimately, it is up to each individual instructor to make any accommodations pertaining to temporary disabilities.

CARE Team: The University of North Texas cares about our students' success, not only academically, but emotionally and physically as well. This commitment to the holistic development and well-being of our students is the fuel behind the hundreds of departments, services and resources across campus that seek to respond to their unique needs. Nevertheless, students do not always ask for help when they need it. In an effort to identify those students proactively, UNT has created a campuswide network of professionals who are committed to caring and responding to the unspoken needs of students. The CARE Team ensures a confidential program of identification, intervention and response in order to provide our students with the greatest chance of success and our community with the greatest level of protection.

Questions or concerns for the CARE Team regarding a student or an incident can be directed to a CARE Team Chair or another member through our web site at studentaffairs.unt.edu/care.

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 the annual Flight Memorial, an event where the UNT community recognizes all students, faculty, staff members and alumni who have passed away over the past year (April 1 - March 30). The Flight Memorial is usually held the last Wednesday of April. 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.

For more information, contact the Dean of Students Office, 940-565-2648; deanofstudents@unt.edu; or visit us on the web at deanofstudents.unt.edu.

## Annual Security and Fire Safety Report

The personal safety and security of every member of the university community is of paramount concern to all at the University of North Texas. In keeping with this concern, each year 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 studentaffairs.unt.edu/clery.html.

The following notification is mandated by Texas Education Code Sec. 51.219.

## Notification of 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 other 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 severs, go beyond anything that the University's Code of Student Conduct will address.

## Hazing

The university wants to take this opportunity to inform the university community about the dangers and consequences of hazing.

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

By definition, hazing is any intentional, knowing or reckless act by one person alone or acting with others, directed against a student, that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in or maintaining membership in an organization" whose members are or include UNT students.

Examples of hazing include but are not limited to:

- Any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing a harmful substance on the body, or similar activity.
- Any type of physical activity that subjects a student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of a student, such as sleep deprivation, exposure to the elements, confinement in a small space or calisthenics.
- Any activity involving consumption of alcoholic beverages, liquor, drugs, food, liquid or any other substance that exposes a student to unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student.
- Any activity that intimidates or threatens a student with ostracism or that subjects the student to extreme mental stress, shame or humiliation that adversely affects the mental health or dignity of the student or discourages the student from entering or remaining registered at UNT, or that may reasonably be expected to cause the student to leave the organization or UNT rather than submit to hazing whether the act is committed in person or communicated by other media including social networking.
- Any activity that induces, causes or requires a student to perform a duty or task that requires commission of an illegal act. 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, directing, 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 Center for Student Rights and Responsibilities or 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.

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 in writing 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)


## Dining Services

Dining Services at UNT is an award-winning dining program where our motto speaks volumes: "It's about the food!" Whether you are looking to enjoy a meal in one of our resident dining halls or need something quick to-go from one of our convenient retail locations, we have fresh options that will satisfy your hunger.

## Resident plans

Students living in residence halls are required to have a 5 or 7 day meal plan. These plans allow you to take advantage of our popular all-you-care-to-eat open dining policy, meaning that you can visit any dining hall, any time it's open, as often as you wish. Most are open 7 a.m. to 7 p.m. (M-F) and weekend service is available as well. Both 5 \& day meal plans come with Flex dollars, which give students access to all of our retail locations on campus. Flex dollars are a spending privilege that work like a debit card; each time a purchase is made, the money is subtracted from your flex account, and your new total will print at the bottom of your receipt.

## Commuter plans

Commuter students may purchase the meal plans listed above or select commuter-specific meal plans: 8's Enough, 1-A-Day, Commuter 80, Commuter 120, Commuter 160, and Declining Balance. While having a meal plan will save you money, all of our dining halls are open to the public and we gladly accept cash and credit for individual meals.

For more information please visit the Dining Services office located in Crumley Hall, Room 132, call 940-565-2462, or visit our website at dining.unt.edu.

## Office of Disability Accommodation

The Office of Disability Accommodation (ODA) is the central referral agency and resource clearinghouse 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. The mission of the ODA is to provide reasonable accommodations and auxiliary aids to eligible students by facilitating appropriate adjustments to the
classroom and associated learning environments. In order to administer this process, ODA maintains all student disability related medical and psychological documentation and the corresponding accommodation request records. Students who qualify for accommodations are responsible for presenting to their instructor an Accommodation Request Form, which is generated on ODA letterhead and signed by a department official.

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. ODA arranges classroom auxiliary aids such as sign language interpreters, Computer Aided Real Time Transcriptionists (CART), readers, alternative format textbooks (such as textbooks on tape) and various forms of adaptive equipment and technologies. ODA also houses adaptive testing facilities for administration of course examinations and works closely with academic departments and course instructors in making such arrangements. For more information, call 940-565-4323, TDD 940-369-8652 or 565-2958; visit Sage Hall, Suite 167; or go to disability.unt.edu.

## Distance Education (web-based and videoconference)

The University of North Texas offers a selection of undergraduate and graduate courses, degree programs, and certificate programs via distance education, primarily through the web. Most web-based courses can be taken from any location worldwide that has Internet access and the appropriate computer equipment available. For more information, visit www.UNTeCampus.com.

## Next Generation courses (NextGen)

NextGen ${ }^{\mathrm{TM}}$ courses are classes that have been redesigned with effective and engaging instruction that energizes teaching and learning. NextGen ${ }^{\mathrm{TM}}$ classes include a mix of instructional strategies and best practices such as experiential learning, technology-enriched learning, and collaborative learning. Experiential learning provides an active learning environment that relates course content and activities to real world situations; collaborative learning helps make classes feel more personal by promoting student connection with content and classmates; and online opportunities provide a flexible way for students to explore foundational materials at their pace and convenience.

Though each NextGen ${ }^{\mathrm{TM}}$ course is uniquely designed, every NextGen ${ }^{\mathrm{TM}}$ course is built upon a foundation of specific learning outcomes and assessments that align with instructional methods to stimulate higher level learning, promote retention, and provide a true picture of student success. NextGen ${ }^{\mathrm{TM}}$ courses strive to meet today's students where they are while evoking and inspiring learners to excel.

## Distinguished Lecture Series

The UNT Distinguished Lecture Series was organized and chartered as a universitywide program in 2004 with the assistance of the UNT Student Government Association and the Division of Student Affairs. The series is administered by a committee composed of students, faculty and staff, with a student member serving as chairperson. The objective of the series is to provide the university and greater communities with a variety of distinguished, world-class lecturers and speakers who will bring significant interest, visibility and added prestige to the University of North Texas. The series is dedicated to complement the educational process and to add significantly to the quality of life for the university community and communities of the Dallas-Fort Worth region. Recent programs have featured President George W. Bush, author Sherman Alexie, former Secretary of Defense Robert Gates, former Secretary of State Condoleezza Rice, financial planner Suze Orman, television hosts Jamie Hyneman and Adam Savage, author Eric Schlosser, activist Cornel West, former Mexican President Vicente Fox, TV scientist Bill Nye, environmentalist Robert F. Kennedy Jr., and more. For more information, go the web site at studentaffairs.unt.edu/dls.

## Eagle Ambassadors

UNT Eagle Ambassadors are student recruiters/tour guides with various majors and backgrounds who are interested in promoting the university. In addition to conducting well-organized, friendly tours of the university for prospective students, parents and other visitors, Eagle Ambassadors represent the student body at various events for the President's Office. They also serve as positive role models for prospective students while assisting the Office of Admissions at college nights and at UNT Preview. The Eagle Ambassadors are responsible for operating the information desk in the Eagle Student Services Center.

The program, started in 1998, offers students an opportunity for personal and professional growth. Following a competitive application and interview process, Eagle Ambassadors are trained extensively. These students receive a $\$ 2,500$ scholarship as well as an hourly wage and are required to maintain a minimum grade point average and full-time student status.

## Eagle Alert

Eagle Alert is an automated system that allows UNT administrators to notify the campus community by phone in the event of an emergency. Eagle Alert sends voice and text messages to phones of everyone with an active EUID account who has registered with the system.

All students, faculty and staff are automatically enrolled in the Eagle Alert system using the telephone numbers provided to UNT during the registration or hiring process.

You should check your contact information regularly and update it as soon as it changes by logging in at my.unt.edu and following the "Update your information" link under the Eagle Alert banner. For more information on UNT Eagle Alert, visit www.unt.edu/eaglealert.

## EagleConnect

UNT has designated e-mail as an official form of communication between the university and students. UNT provides e-mail accounts, accessible at my.unt.edu, to all students registered at the university with no special fee imposed for those accounts. Students are automatically assigned e-mail accounts and are given computer storage space for a reasonable volume of mail. Students are responsible for reading their email frequently enough to receive important communications from the university.

## 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. Our office maintains and monitors the Early Alert Response System, and through this system we identify struggling students and connect them with appropriate on- and off-campus resources.

## Facilities use policy

The term facilities describes all structures on the campus or otherwise under the control of the university. Use of such facilities is governed by the university's "Facilities Use" policy and "Off-Campus Speakers" policy. Requests may be made through the Facilities Scheduling Office, Lifelong Learning and Professional Development at 940-565-2600.

Student organizations wishing to reserve facilities should contact the Student Activities Center, Stovall Temporary Union Building, Room 155, 940-565-3807.

## Fine Arts Series

The UNT Fine Arts Series began as the Lyceum Series in 1924 during the Normal College era. The series has continued to provide a wide variety of the visual, performing and literary arts for the university and communities in the greater Dallas-Fort Worth region. Coordinated by a committee composed of students, faculty and staff, the Fine Arts Series provides students with leadership opportunities, arts management skills, participation in the selection of artists and their works, and evaluation skills to discern among various artists.

UNT students may receive free tickets to non-food performances by presenting a current UNT ID to the ticket seller. Faculty and staff are admitted at a discounted price. For more information, call 940-565-3805 or visit www.unt.edu/fas.

## Gateway Center

The Gateway Center is a multipurpose facility housing class and conference rooms, the Club at Gateway Center, offices for the Vice Chancellor and General Counsel, the Office of Development, the UNT Alumni Association, the UNT Foundation Inc., and a banquet facility which caters to both on-and off-campus events. For banquet/conference scheduling, reservations and pricing, call Union Scheduling at 940-565-3804 or e-mail unionschedul-ing@union.admin.unt.edu.

## Graduate Student Council

The Graduate Student Council assures formal avenues of communication between representatives of the graduate student body and both the dean of the graduate school and the Graduate Council. It serves as an advisory council to facilitate an interchange of views and information between these groups. Two members of the Graduate Student Council are elected annually to serve as voting members of the Graduate Council. For additional information, contact the Toulouse Graduate School or visit www.gsc.unt.edu.

## Student Health and Wellness Center

The Student Health and Wellness Center, located on the second floor of Chestnut Hall, is equipped with examination and treatment rooms, a clinical laboratory and digital x-ray machine. A pharmacy and an optical clinic are located on the first floor. Medical services are available when school is in session to enrolled students paying the medical service fee. Medical care is not available between semesters or on official university holidays. A 24 -hour Nurse Hot Line is available at 877-440-0549; however, in an emergency, call 911. The Student Health and Wellness Center 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 www.healthcenter.unt.edu.

Services covered by the medical services fee include routine visits for coughs, colds and other illnesses, as well as monitoring of chronic conditions and referrals to outside specialists. Charges are assessed for ancillary services, including medications, supplies for procedures and treatments, testing, vaccinations and allergy injections, and specialty provider visits, such as psychiatric, dietitian, massage therapy, travel clinic, and women's pap appointments. Students may pay with cash, check, credit card, or make billing arrangements. The Student Health and Wellness Center must have prior parental consent on file to treat minors (under 18). Anyone with a complex medical condition is urged to meet with one of our medical providers to review your medical history within the first few weeks of attending UNT.

Medical information is confidential and is not released to others without a release signed by the patient. If a parent or guardian requests information on a minor, the Student Health and Wellness Center provides the information as allowed under the law.

The UNT Pharmacy located on the first floor of Chestnut Hall fills prescriptions for the UNT Student Health and Wellness Center and offers some over-the-counter medications for students. Prescriptions from outside physicians can also be filled at the UNT Pharmacy. Students needing medications filled should speak with a pharmacist about their options by calling 940-565-2790.

The Meadows Center for Health Resources provides individual health education, outreach programs for students and campus groups as well as special programs for specific health needs. Go online to healthcenter.unt.edu/meadows-center for information about services and programs. Contact the Meadows Center for Health Resources at 940-565-2787 to request information or schedule a program.

Allergy injections can be administered at the Student Health and Wellness Center. Patients must have allergy serum and orders from their allergist prior to receiving allergy injections. For more information, obtain a current "Allergy Policy" from the Student Health and Wellness Center.

The Student Health and Wellness Center recommends that all students have current immunizations for diphtheria, pertussis, tetanus, rubella, mumps, measles and hepatitis 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, and any returning students who have not been continuously enrolled for previous long semester. Additional information on this requirement, including forms, submission process and other issues relating to possible exemptions, is available at the immunization section of the UNT Student Health Center's web site at healthcenter.unt.edu/immunizationrequirements. It is also recommended that all other students consider receiving the bacterial meningitis vaccination.

## Health insurance program

A group student health insurance plan is offered for students enrolled at UNT. Application forms are available in the Student Health and Wellness Center or online at www.uhcsr.com.

International students should refer to "International Student Health Insurance Requirement" elsewhere in this section.

## Homecoming

Each fall, Homecoming activities offer a full week of events sponsored by various campus departments and student organizations. Annual events include a picnic, spirit march, bonfire, parade, Golden Eagle reception to honor 50-year alumni, 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; visit homecoming.unt.edu; or call 940-565-3807.

## Honors Day

For more than half a century-since 1950-the University of North Texas has observed the tradition of coming together each academic year to honor our most accomplished and distinguished students, faculty and staff. Honors Day is an important event in the life of the institution and occurs each spring semester, usually in April.

For more information, call 940-565-4909 or visit studentaffairs.unt.edu/programs/honors_day.html.

## Housing

All unmarried undergraduate students who have graduated from high school the semester prior to enrolling at UNT, who have completed fewer than 30 semester hours of university work (pre-college hours not included) and who enroll for 12 or more hours are required to reside in university-operated residence halls under a contractual room and board plan as long as space is available. Exemption may be granted by the director of housing in accordance with an established policy statement, which is available from the Department of Housing and Residence Life. College Inn, Honors Hall, Legends Hall, Mozart Square and Santa Fe Square are available for upperclassmen students and allow for a no-meal plan selection.

## Residence halls

The University of North Texas' 15 residence halls provide students with a wide range of living environments. Coed, freshman and upperclassmen halls offer a variety of learning opportunities. Most halls have rooms specifically modified to accommodate disabled students.

Hall guidelines are set forth in the Housing Handbook, which is available at housing.unt.edu. It is a student's responsibility to be familiar with these regulations.

## Residence hall applications

The Housing application, available online at housing.unt.edu must be accompanied by an administrative application fee and prepayment. Room assignments are made primarily on the basis of the date contracts are completed and the residence hall and room type selected via the online application. The online application functions as a signed contract. A person who is not accepted to UNT has a 10-business-day period from the date of denial to receive a full application payment refund. For those accepted but selecting another university, there is a schedule of application payment refund dates found in the terms and conditions of the Housing License Agreement.

For those accepted and attending UNT, there is a 10-business-day period after completing the contract in which to cancel for a full refund. There is a cancellation fee (for early breakage of the contract approved by Housing) of $\$ 500$ plus room and board charges through check-out.

Room and board rates are subject to approval by the Board of Regents. A list of current rates is available online. For housing information, write to University of North Texas, Housing Department, 1155 Union Circle \#311310, Denton, TX 76203-5017 or by e-mail to housinginfo@unt.edu. The housing application is available by creating an eHousing account on the Housing web site-housing.unt.edu.

## 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 but does support the federal housing policies that housing owners not discriminate because of race, color, sex, age, religion, disability, veteran status or national origin.

## Learning Center

Location: Sage Hall, Suite 315
Phone: 940-565-7006
Fax: 940-369-8394
Web site: learningcenter.unt.edu

The Learning Center (LC) was created to supplement and support 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. Tutoring (one-on-one, online and group), the Study Skills Laboratory, Speed Reading, Supplemental Instruction, Academic Coaching, the Academic Success Program, Learning 101 Series, Graduate Student Services and the Academic Resource Library are all housed in the center.

The Learning Center offers advising, placement, support and assessment for students completing their university and state readiness (Texas Success Initiative) requirements.

## Learning Communities

Location: Sage Hall, Suite 302
Phone: 940-565-2457
Web site: learningcommunities.unt.edu
Learning Communities at the University of North Texas offer students the opportunity to get involved in academic, service and social activities with other UNT students who share similar interests. Learning communities include two or more of the following components:

Core Courses: Required for all students. Core courses are often large courses, but students have the benefit of being enrolled with peers from their learning community.

Major Courses: Courses specific to or recommended for the intended major.
Peer Mentor: An upperclass student who provides support and advice and coordinates activities for the group.

Residence: Living on the same wing with students who share common majors or interests.

## Multicultural Center

Location: University Union, Suite 218
Phone: 940-565-3424
Web site: edo.unt.edu/content/multicultural-center

The UNT Multicultural Center was established with the goal that it would be a place where students and community members could experience the cultural wealth of the university, with a central purpose to teach diversity through student engagement and promote student success. The Multicultural Center provides resources, information, educational opportunities and events that build inclusion focusing on five areas of diversity: race/ethnicity, gender, sexual orientation, interfaith and disability.

## UNT Alumni Association

The UNT Alumni Association is a member-driven organization that supports the mission and vision of the University of North Texas by enhancing its institutional reputation, community engagement and advancement with UNT constituents. For more information, visit UNTalumni.com or call 940-565-2834.

## 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. room reservations) must register each long semester with the Student Activities Center.

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

## Parking

Parking regulations, maps detailing parking facilities, parking office hours, contact information, and the links to paying parking citations online or to purchasing a parking permit online may be obtained at www.unt.edu/transit. All student, staff and faculty parking permits (except temporary permits, TF permits and "A" reserved permits) are sold online.

## Pohl Recreation Center

Open throughout the day for recreation and fitness opportunities, the Pohl Recreation Center provides a variety of facilities, space, and programming to support and inspire the wellness of the UNT community.

The Rec Center has a 14,500 sq. ft. weight and cardio area, 3 multi-purpose courts for basketball, volleyball, and badminton, an indoor soccer gymnasium, a 45 ft . climbing wall and 10 ft . bouldering wall, an 8 lane lap pool and $5,510 \mathrm{sq}$. ft . leisure pool with a hot tub, and an $1 / 8 \mathrm{mile}$ indoor track. Also located in the facility are locker rooms, Smoothie King, a lounge and seating areas, meeting rooms, two group exercise rooms, lighted outdoor sand volleyball and basketball courts, and the Recreational Sports office.

The Rec Center is open to all currently enrolled UNT students with a valid UNT ID who pay the recreation fee included in tuition. Current and retired faculty, staff and their families may purchase memberships. Memberships are also available to alumni. Current and retired faculty and staff employees who are members of the Rec Center and students with an active Rec Center membership may sponsor one individual over the age of 18 living in the same residence for membership. Members can sponsor up to two guests per day for a fee.

The Rec Center is a result of a project initiated by a UNT student group in 1997, which gained momentum through student involvement and was approved through a student referendum in 2000 . The Rec Center is funded primarily through the recreation fee.

For more information regarding the Pohl Recreation Center's programs and facilities, contact Recreational Sports in Room 103 or call 940-5652275. Information is also available through the Rec Sports website at recsports.unt.edu.

## Recreational Sports

Recreational Sports is located in the state-of-the-art 138,000 square-foot Pohl Recreation Center, and offers an incredible array of programs and experiences that promote and support the recreation and fitness needs of the UNT community. Along with special events like Movie Under the Stars and Rec Extravaganza, Rec Sports has six different departments to help keep students happy, healthy and active.

## Fitness

The fitness program offers fitness assessments, personal training, RMR testing, body composition testing and other classes. The group exercise program offers students exciting, instructor-led aerobic activities like cycle, kickboxing, Pilates, yoga, Zumba and others. The Fitness staff also oversee the 14,500 square foot weight room, located in the Rec Center, and offer a variety of cardio machines including treadmills, ellipticals, and free weights.

## Intramural Sports

UNT students versus UNT students! Any student who pays the recreation fee may participate in intramurals through one of three divisions that have men's, women's and co-recreational teams: Residence Hall, Greek or Independent. Team sports are arranged on a round-robin basis, and individual and dual sports are set up by elimination tournaments, meets and special events. Major sports include flag football, outdoor soccer, basketball, softball, volleyball, and indoor soccer while individual events can include racquetball, tennis, PS4, Texas Hold 'Em, and dodgeball.

## Outdoor Pursuits

The Outdoor Pursuits program offers a 45 -foot indoor climbing wall, 10 -foot bouldering wall, rental of outdoor equipment like tents, sleeping bags, coolers, stoves, canoes and kayaks. Outdoor Pursuits also oversees an adventure trip program that takes members out on day, weekend, and even extended trips within Texas and beyond. Free clinics are also offered throughout the year that give instruction on various topics like stargazing, survival, and kayak roll.

## Sport Clubs

The sport club program provides an opportunity for UNT students to compete against other colleges and universities in the Texas region. The clubs include archery, baseball, bowling, climbing, cycling, disc golf, dodgeball, equestrian, fencing, ice hockey, in-line hockey, men's lacrosse, men's rugby, men's soccer, men's ultimate, men's volleyball, men's wrestling, paintball, running, table tennis, tennis, triathlon, wakeboard, women's lacrosse, women's rugby, women's soccer, women's ultimate, women's volleyball, and women's wrestling.

## Aquatics

The aquatics program offers instructional classes such as Learn to Swim, private swim lessons, and lifeguard certification courses. The Aquatics program also hosts special events like the Dive-In Movie and Recathon.

## Informal Recreation

Informal recreation offers drop-in activity in basketball, indoor soccer, racquetball, swimming, badminton, volleyball and more, and can check out equipment to you at no charge. Informal Recreation also oversees the Waranch Tennis Complex. This facility offers 12 lighted tennis courts and equipment checkout, and is home to the Mean Green women's tennis team. For more information about the Waranch Tennis Complex, please call 940-565-4200.

Work where you play: Recreational Sports is one of the largest employers of students on the UNT campus. Rec Sports offers a wide range of job opportunities for students throughout the six program areas including membership services, weight room, personal training, group exercise instruction, lifeguarding, outdoor pursuits, or officiating their favorite intramural sports.

For information concerning hours of operation, call the Member Services Desk at 940-369-8347, the Recreational Sports Office at 940-565-2275, or visit the Rec Sports web site at recsports.unt.edu.

## Spiritual life

The Office of Spiritual Life seeks to help students explore their values, beliefs, and ways of making meaning as they navigate their college experience. Through various initiatives, students are encouraged to critically reflect on their beliefs and engage with a diverse array of peers in interfaith dialogue. Spiritual Life also serves as an additional resource for religious and spiritual student organizations looking for more ways to connect to the campus and the student body, including a registration process for campus ministers. For more information, please call 940-5653288 or visit studentaffairs.unt.edu/office-spiritual-life.

## Speech and Hearing Center

The University of North Texas Speech and Hearing Center offers services to adults and children in the Denton-Dallas-Fort Worth areas with speech, language, swallowing, and hearing disorders. Audiology services include hearing testing, dispensing and repair of hearing aids, management of cochlear implants, assessment of auditory processing disorders, assessment of tinnitus, and aural rehabilitation programs. Speechlanguage pathology services include evaluation and treatment of language, articulation, fluency, voice, resonance, and swallowing disorders.

The Speech and Hearing Center offers many services designed to meet the needs of UNT students, including a dialect reduction service for nonnative speakers of English and testing and support for students with language-learning disabilities. The Center also provides assessment and treatment services to students in the performing arts, including a hearing conservation program for musician's ear protection, tinnitus management for musicians, and voice evaluation and treatment for performance-related disorders. Services are free to enrolled UNT students.

The Speech and Hearing Center accepts payment through cash, credit card, insurance, and traditional Medicaid. A sliding fee scale is available for clients from the community who meet income qualifications. To schedule an appointment, please call 940-565-2262. Additional information can be found at speechandhearing.unt.edu.

## Student Activities

One of the goals of Student Activities is to help students get involved on campus, to maximize their college experience. Through a variety of events, services, and resources, the office provides students with opportunities to connect to the university and to other students. Student Activities promotes a sense of community and loyalty to the university while enhancing the social, intellectual, and developmental growth of students as individuals or members of student organizations. We do this through three areas: campus wide events and traditions, including Mean Green Fling and Homecoming; Off-Campus Student Services, which includes events and services for off-campus, commuter, non-traditional, graduate and online students; and student organization services, including programs for new and existing organizations.

For more information or help contacting any of the 400-plus registered student organizations, contact Student Activities in the University Union, Room 345; visit studentactivities.unt.edu; or call 940-565-3807.

## Student Financial Aid and Scholarships

Student Financial Aid and Scholarships (SFAS) at the University of North Texas offers a variety of options to assist students in financing their education. For more information on financial aid and scholarships at UNT, please visit financialaid.unt.edu; come by our offices in the Eagle Student Services Center; or call 940-565-2302.

## Student Government Association

The Student Government Association (SGA) strives to promote the interests and opinions of the undergraduate student body. 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 the many services SGA is responsible for, visit sga.unt.edu.

Undergraduate students interested in becoming a member of SGA may call 940-565-3850; visit the SGA office located in the University Union, Room 344; or visit the SGA web site at sga.unt.edu

## 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 walk-in hours. Please refer to the web site for details (www.unt.edu/legal) or call 940-565-2614.

## Student Money Management Center

The Student Money Management Center provides tools and solutions UNT students need to achieve financial independence during their college experience. Free services include private consultations with professionals or peer counselors. The center sponsors free workshops, seminars and clinics covering a wide variety of personal financial and money management topics. Some of the workshops are based in theory, some are based in methodology—but all of the training opportunities include plenty of tips and strategies that students can apply to their personal financial situations. All educational opportunities are open to all members of the UNT community. For information, visit moneymanagement.unt.edu, call 940-369-7761 or stop by Suite 313 in Chestnut Hall.

## Orientation and Transition Programs

Orientation and Transition Programs seeks to 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, located in the University Union, Room 377, call 940-565-4198, or visit us on the web at transition.unt.edu.

## Student Veteran Services

Student Veteran Services, in collaboration with a diversity of university departments, aims to serve as a safe place to help student veterans navigate university resources for academic success. Our focus is simply three pillars: to help remove barriers for student veterans through an emphasis on transition support through campus life; to provide connection to resources both on and off campus to assist student veterans; and to give due recognition of the service members in our UNT community through programs and scholarship. For more information, please visit the center in Sage Hall, Room 123, call 940-369-8021, or e-mail veteranscenter@unt.edu for further assistance.

## UNT TRIO Programs

TRIO develops, implements and administers programs specifically designed to meet the educational needs of unique student populations, such as the financially and educationally disadvantaged, minorities and disabled individuals. UNT TRIO currently administers six programs that provide services to students from middle school level through undergraduate level. Projects administered by TRIO have involved numerous school districts in the state of Texas, as well as many community colleges throughout the state. These six programs provide services for more than 1,900 participants yearly, ranging from 6th graders to upper-division undergraduate UNT students. Contact TRIO at 940-565-2090 or trio@unt.edu.

## UNT Police Department

The UNT Police Department serves an integral role in campus life 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 our community.

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

## University Union

The University Union renovation project was completed in the Fall 2015 semester and has reopened as the new center for campus life at UNT. The Union provides services and programs that members of the campus community need in their daily lives and creates an environment for getting to know and understand others through formal and informal associations.

The Union is home to many different offices, services and student organizations. These groups include: Barnes \& Noble at UNT, Union Administration, Student Activities, Student Affairs, Dean of Students, Student Legal Services, banking services, post office, Design Works, Multicultural Center, Center for Leadership and Service, University Program Council (UPC), Orientation and Transition Programs, Substance Abuse Resource Center (SARC), Student Government Association (SGA) and Graduate Student Council (GSC). The Union is also home to many dining options, including Starbucks, Jamba Juice, Chick-Fil-A, Taco Bueno, Burger King, Fuzzy's Taco Shop, Which Wich, and much more.

For the most up-to-date information regarding the Union, please visit union.unt.edu or contact the Union at 940-565-3805. Like us at facebook.com/UNTUnion and follow us on Twitter @UNT_Union. Contact Union Scheduling Services for catering, event planning and facility use at 940-565-3804 or visit union.unt.edu/scheduling.

## University Program Council

The University Program Council (UPC) is a student-run programming board that coordinates fun and exciting programs around the UNT campus. UPC is dedicated to providing programs that are entertaining, educational, diverse and almost always free for students. UPC is comprised of several student executive positions and a student volunteer board that plan and implement 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. All of our UPComing events can be found by liking our Facebook page at "UNT University Program Council" or following @UNT_UPC on Twitter.

## University Writing Lab

At the UNT Writing Lab, we offer free tutoring to all UNT students in all disciplines and at all stages of their academic careers-from English composition students to graduate students writing theses and dissertations. We do more than merely proofread; we teach you strategies and techniques to improve your writing for the long term.

We offer the following:

- Undergraduate students receive 30 minutes of one-on-one tutoring at Sage Hall, Room 152
- Undergraduate students receive 30 minutes of one-on-one tutoring at Willis Library, Room 123 (walk-ins only)
- Undergraduate students receive 30 minutes of one-on-one tutoring using our online tutoring service. To set an online appointment, follow the guidelines on http://writinglab.unt.edu/online-tutoring


## You may have only one one-on-one tutoring session per day.

For best results, bring your professor's requirements for the assignment with you. Our sessions start on the hour and on the half hour. We accept both appointments and walk-ins at our Sage Hall, Room 152 location. However, to ensure time with a tutor, we recommend setting an appointment. To make an appointment, you may

- Come see us at the Writing Lab in Sage Hall, Room 152
- Call us at 940.565.2563

To learn more about our hours of operation, our workshops, and our informational handouts on topics like punctuation, grammar, and more, go to http://www.WritingLab.unt.edu

## Policies

## University diversity statement

The University of North Texas has a history of seeking to preserve an atmosphere of openness and tolerance. It is committed to maintaining an unpretentious and accepting atmosphere welcoming to anyone who strives to achieve his or her personal best. UNT possesses and values an increasing diversity among the individuals who make up its community. This is one of UNT's greatest strengths.

Individuals within the UNT community are unified by a primary purpose: learning. With that primary purpose in mind, UNT works to advance ideals of human worth and dignity by facilitating open discussion, supporting rational resolution of conflict and encouraging examination of values.

Harassment based on individual differences is inconsistent with UNT's mission and educational goals. Every member of the UNT community enjoys certain human and constitutional rights, including the right to free speech. At the same time, individuals who work, study, live and teach within this community are expected to refrain from behavior that threatens the freedom, safety and respect deserved by every community member in good standing.

Every member of the UNT community must comply with federal and state equal opportunity laws and regulations. Such compliance is not only a given standard, but is, in fact, a baseline from which our community works to assure fairness and equity to all who pursue their educational and professional goals here.

Students, faculty or staff who have concerns or questions should contact the appropriate office. Students should call the Dean of Students at 940-565-2648. Faculty and staff should call the Division of Institutional Equity and Diversity at 940-565-2711. TTY access: 940-369-8652 or 800-735-2989.

## Americans with Disabilities Act

The University of North Texas does not discriminate on the basis of an individual's disability and complies with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act as Amended in its admissions, accessibility, treatment and employment of individuals in its programs and activities.

The university provides academic adjustments and auxiliary aids to individuals with disabilities, as defined under the law, who are otherwise qualified to meet the institution's academic and employment requirements. For information, call the Office of Disability Accommodation at 940-565-4323, TDD access: 940-565-2958 or 940-369-8652; the Office of Equal Opportunity at 940-565-2737; or Institutional Equity and Diversity at 940-565-2711. TDD access is available through Relay Texas: 800-735-2989 or 940-369-8652.

## Student Standards of Academic Integrity

A strong university is built upon the academic integrity of its members. As an intellectual enterprise, it is dependent upon trust, honesty, and the exchange of ideas in a manner that gives full credit and context to the sources of those ideas. UNT's policy on the Student Standards of Academic Integrity is designed to uphold these principles of academic integrity. It protects the rights of all participants in the educational process and validates the legitimacy of degrees awarded by the university.

The 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 dishonesty, the university's actions are intended to be corrective, educationally sound, fundamentally fair, and based on reliable evidence. The full policy (18.1.16) is available online at policy.unt.edu, where it can be located by searching for either title or number.

## Changes of address

It is the responsibility of the student to provide correct permanent and local mailing address information at all times and on all documents at the university. Students who change their mailing address must notify the Registrar's Office immediately by calling 940-565-2111 or update their address at my.unt.edu.

## Identification card regulations

The identification card is distributed during registration after all fees have been paid. The card entitles the bearer to student admission to athletic events, University Program Council entertainment, Fine Arts Series programs, dances, movies, general access computer laboratories and the Student Health and Wellness Center. It provides identification at the libraries for checking out materials, and at Recreational Sports and the Health and Wellness Center for use of these facilities. The ID card also serves as the meal card for those students with meal plans. As the student's official university identification, it must be presented to any UNT official upon request.

Lost ID cards may be replaced for a $\$ 10$ charge in the ID Systems Office of Student Accounting and University Cashiering Services in the Eagle Student Services Center, first floor. Misplaced ID cards that have been turned in are held in the ID Systems Office.

The card is void upon termination or interruption of enrollment. Students are asked to retain their ID cards, even though they may not be enrolled. The cards are reactivated upon subsequent enrollment.

Fraudulent use of the ID card subjects the user to a fine not to exceed $\$ 2,000$, confinement not to exceed one year, or both (Class A Misdemeanor). Anyone who uses the ID card to give false information to a police officer is subject to a fine of not more than \$200 (Class C Misdemeanor).

## 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 or damage to possessions on campus, including possessions in dormitories and vehicles.

## Motor vehicle regulations

Persons who operate motor vehicles and bicycles on the UNT campus must comply with the Texas Transportation Code and published university regulations regarding vehicle and bicycle use, parking, display of decals and penalties for violation. The regulations are available online at www.unt.edu/transit/parking_regs.html.

## Paying bills

State law does not permit the university to extend credit; bills must be paid when due. Check and credit card payments are accepted online at my.unt.edu. Checks paid in person 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.

## Severe weather dismissals

Weather conditions may temporarily disrupt university operations. The university policy regarding severe weather disruption pertains to all university classes.

Courses taught online via Web CT are unaffected by severe weather closings unless instructors inform students otherwise. Those students should continue course work as regularly scheduled.

The current policy may be found in the online schedule of classes at www.unt.edu/registrar.

Closings due to severe weather are posted on the UNT web site (www.unt.edu), are released to the Dallas-Fort Worth news media, and are sent to registered students, faculty and staff via Eagle Alert system when appropriate.

## Student Handbook

Policies and regulations governing students are explained or recorded in full in the Student Handbook, which freshmen and transfer students receive at orientation. The handbook also deals with other applicable state, local and university policies, student services and programs. The student is responsible for knowing and abiding by these policies. The handbook is also available online at studentaffairs.unt.edu.

## Transportation services

The Denton County Transportation Authority operates the UNT Shuttle through an agreement with UNT. The UNT Shuttle serves the main campus, the Discovery Park campus and the Eagle Point campus, as well as off-campus student-oriented housing. Additionally, students can access the Denton local bus service fare free by presenting a valid UNT ID.

During the fall and spring semesters, between 9 p.m. and 2 a.m., 7 days a week, late-night transportation is provided by the e-ride service, which provides transportation to and from all three Denton campuses.

Alternative transportation options, including car sharing, bicycling and ridesharing, are supported by Transportation Services as well.

For information regarding hours of operation, route schedules and alternative transportation options, visit the web site at www.unt.edu/transit.

## 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 brochure, available from the Center for Student Rights and Responsibilities; 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.

## 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 or rule. A student who receives a notice of complaint should always consider it important and respond immediately. Failure to answer a notice of complaint can result in disciplinary action up to and including administrative withdrawal from the university and a block on enrollment.

## Code of Student Conduct

## Purpose of the Code of Student Conduct

As a student-focused public research university, the University of North Texas has established standards of conduct to foster a safe environment conducive to learning and development. Students and university student groups are expected to conduct themselves in a manner that demonstrates respect for the rights and property of others and upholds the integrity of the university community. The standards of conduct outlined in the Code of Student Conduct were developed in consultation with students, faculty, administrators and staff with specific consideration for the well-being, honor and dignity of all who live, learn and work in our educational community.

The most up-to-date Code of Student Conduct is available online at deanofstudents.unt.edu.

## University of North Texas Drug-Free Schools and Communities Act

Pursuant to the Drug-Free Schools and Communities Act Amendments of 1989, the University of North Texas is required to establish a drug and alcohol prevention program for its students and employees. UNT is also required to provide this information to students, faculty, and staff upon entry and annually. Following is a description of UNT's program. 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

Violation of these university regulations can result in disciplinary action up to and including expulsion for students and discharge for employees.

## 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 Substance Abuse Resource Center at 1800 Chestnut, Chestnut Hall, Suite 301, or by calling 940-565-2787.

- Alcohol and other depressants (barbiturates, sedatives, and tranquilizers) - addiction, accidents as a result of impaired ability and judgment, alcohol poisoning, overdose when used with other depressants, damage to a developing fetus, heart and liver damage and death.
- Marijuana - impairs short-term memory, thinking, and physical coordination. Can cause panic reaction and increase the risk of lung cancer and emphysema. Can interfere with judgment, attention span, concentration, and overall intellectual performance. Impairs driving ability. May cause psychological dependence and compromise the immune system.
- Cocaine - addiction, cardiovascular system damage including heart attack, brain damage, seizures, lung damage, severe depression, paranoia, psychosis. Similar risks are associated with other stimulants, such as speed and uppers.
- 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. People can rapidly become physically and psychologically dependent on tobacco. Compromises the immune system.
- 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. Use of these drugs slows down many body functions. High doses can cause severe breathing failure and sudden death. Chronic abuse of some of these chemicals can lead to irreversible liver damage and other health problems.
- Prescription drug abuse - adverse reactions, dependency, withdrawal, and overdose.


## Resources

A variety of resources exist for alcohol and other drug prevention education, counseling and referral. For detailed information concerning these resources available from the university and community agencies, students may contact the Meadows Center for Health Resources and the Substance Abuse Resource Center, 1800 Chestnut, Chestnut Hall, Suite 301, 940-565-2787. Faculty and staff members may contact the Employee Assistance Program at 800-343-3822 or Human Resources at 940-565-4817.

## Contacts at UNT

General university number
Switchboard 940-565-2000

University metro number
Switchboard 817-267-3731

General university Internet address
www.unt.edu

Academic calendar
www.unt.edu/catalog
Schedule of classes
registrar.unt.edu
Web registration
my.unt.edu

Campus tour information
940-565-4104
Web site: tours.unt.edu/

## Admissions Offices

## Office of Admissions (undergraduate)

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
Ask UNT (web site): www.unt.edu/AskUNT

Admission information, applications and status reports for new undergraduate students.

Toulouse Graduate School
Graduate Admissions and Graduate Student Services

Eagle Student Services Center, Room 354
Mailing address:
1155 Union Circle \#305459
Denton, TX 76203-5017
940-565-2636
888-UNT-GRAD (868-4723)
Fax: 940-565-2141
E-mail: graduateschool@unt.edu
Web site: www.gradschool.unt.edu
Admission information, application and status for new and former graduate students (U.S. citizens and permanent residents).

## Schools and colleges

The academic dean's office of each college or school handles academic counseling, degree audits, graduation evaluation, adds/drops, concurrent enrollment, incompletes and overloads. All individuals holding a bachelor's degree should consult with the dean of the Toulouse Graduate School. Additional services are indicated below.

## Honors College

Main Departmental Office
Sage Hall, Room 257
Mailing address:
1155 Union Circle \#310529
Denton, TX 76203-5017
940-565-3305
Fax: 940-369-7370

## College of Arts and Sciences

Dean's Office for Undergraduates and Student Advising
General Academic Building, Room 220
Mailing address:
1155 Union Circle \#305189
Denton, TX 76203-5017
940-565-2051
Fax: 940-565-4529
Web site: www.cas.unt.edu

## College of Business

Office of Academic Advising and Student Services
Business Leadership Building, Room 110

Mailing address:
1155 Union Circle \#311160
Denton, TX 76203-5017
940-565-2110
Fax: 940-565-4640
Web site: www.cob.unt.edu

## College of Education

Student Advising Office
Matthews Hall, Room 105

Mailing address:
1155 Union Circle \#311337
Denton, TX 76203-5017
940-565-2736
Fax: 940-565-2728
Web site: www.coe.unt.edu/SAO
The office handles admission to teacher education; teacher certification; degree audit advising; information and assistance with THEA; undergraduate registration and schedule changes; graduation checks; administration of department competency tests; state teacher certification test permission.

## College of Engineering

Office of the Dean
Discovery Park, Room A140

Mailing address:
1155 Union Circle \#310440
Denton, TX 76203-5017
940-565-4300
Advising: 940-565-4201
Web site: engineering.unt.edu

## College of Information

Office of the Dean
Discovery Park, Room E290
Mailing address:
1155 Union Circle \#311068
Denton, TX 76203-5017
940-369-8164
Fax: 940-891-6773
E-mail: ci-advising@unt.edu
Web site: ci.unt.edu

For degree audits and graduation applications, students should see the undergraduate advisor.

## Frank W. and Sue Mayborn School of Journalism

Office of the Dean
General Academic Building, Room 203

Office of the Director
General Academic Building, Room 102

Mailing address:
1155 Union Circle \#311460
Denton, TX 76203-5017
940-565-2205
Fax: 940-565-2370
Web site: www.jour.unt.edu

## College of Merchandising, Hospitality and Tourism

Office of the Dean
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

Reservations for The Club at Gateway Center student-operated restaurant may be made by calling 940-565-4144

## College of Music

Office of the Dean
Music Building, Room 247

Mailing address:
1155 Union Circle \#311367
Denton, TX 76203-5017
940-565-2791
Fax: 940-565-2002
Web site: www.music.unt.edu

## College of Public Affairs and Community Service

## Office of Student Services

Chilton Hall, Room 289

Mailing address:
1155 Union Circle \#305248
Denton, TX 76203-5017
940-565-4664
Fax: 940-565-2352
Web site: www.pacs.unt.edu

## College of Visual Arts and Design

Office of Student Services
Art Building, Room 111

Mailing address:
1155 Union Circle \#305100
Denton, TX 76203-5017
940-565-2216
Fax: 940-565-4717
E-mail: info@art.unt.edu
Web site: www.art.unt.edu

## Toulouse Graduate School

Office of the Dean
Eagle Student Services Center, Room 354

Mailing address:
1155 Union Circle \#305459
Denton, TX 76203-5017
940-565-2383
Fax: 940-565-2141
Web site: www.gradschool.unt.edu
Information regarding graduate admission, general policies, regulations and degree requirements; GRE and GMAT score recording; final approval of graduate degree audits.

## General offices

## The Career Center

Chestnut Hall, Room 103

Mailing address:
1155 Union Circle \#310859
Denton, TX 76203-5017
940-565-2105

Fax: 940-565-4376
Web site: careercenter.unt.edu

Student Employment: Part-time employment listings for on- and off-campus; job fairs and camp days; customer service training; supervisor conflict assistance.

## Counseling and Testing Services

Chestnut Hall, Room 311
Mailing address:
1155 Union Circle \#310968
Denton, TX 76203-5017
940-565-2741
Computer Based Testing
Gateway Center, Room 140
940-369-7617
Web site: www.counselingandtesting.unt.edu

Individual and group counseling for career, emotional and personal concerns; interest, aptitude and personality testing; computer-based testing site for GRE, TOEFL, Accuplacer, and CLEP, plus information and applications for most national admissions tests.

## Dean of Students

Mailing address:
1155 Union Circle \#305008
Denton, TX 76203-5017
940-565-2648
Fax: 940-369-8440
E-mail: deanofstudents@unt.edu
Web site: www.deanofstudents.unt.edu

## Office of Disability Accommodation

## Sage Hall, Room 167

Mailing address:
1155 Union Circle \#310770
Denton, TX 76203-5017
940-565-4323
TDD access: 940-565-2958 or 940-369-8652

Assistance with provision of auxiliary academic aids for students who request reasonable accommodations under the Americans with Disabilities Act (ADA) as Amended and Rehabilitation Act of 1973.

## Institutional Equity and Diversity

Hurley Administration Building, Room 210

Mailing address:
1155 Union Circle \#310937
Denton, TX 76203-5017
940-565-2711
Fax: 940-369-7577

## Housing Office

Crumley Hall, West Wing
Mailing address:
1155 Union Circle \#311310
Denton, TX 76203-5017
940-565-2610
Fax: 940-369-8764
Web site: housing.unt.edu
Residence hall contracts, payments, room assignments and problems; residence hall disciplinary action and appeals.

## UNT-International

Marquis Hall, Room 105

Mailing address:
1155 Union Circle \#311067
Denton, TX 76203-5017
940-565-2197
Fax: 940-565-4822

Web site: www.international.unt.edu

UNT-International supports UNT students and faculty in international education. The department provides services to all students, whether citizens of the U.S. or of other countries, who wish to include an international experience in their education; assists UNT administration, faculty, colleges and departments in the development of international education activities and programs on and off campus; directs and supports the activity of six constituent units: Intensive English Language Institute, International Admissions, International Advising, International Welcome Center, Sponsored and Special Programs Center and Study Abroad Office.

## Intensive English Language Institute

Marquis Hall, Room 145
Mailing address:
1155 Union Circle \#311067
Denton, TX 76203-5017
940-565-2003
Fax: 940-565-4822
E-mail: ielimainoffice@unt.edu
Web site: www.international.unt.edu/ieli

The IELI provides English instruction to students whose first language is not English: beginning to advanced levels. Small classes focus on writing and communication skills, academic skills, research methods and western-style critical thinking modes. Practical, efficient and up-to-date instruction is enhanced through a specialized ESL instructional computer lab.

## International Recruitment

Marquis Hall, Room 114

Mailing address:
1155 Union Circle \#311067
Denton, TX 76203-5017
940-369-7624
Fax: 940-369-7342
E-mail: studyatunt@unt.edu
Web site: www.international.unt.edu/futurestudents

The International Recruitment Office assists prospective students from their first contact until they are admitted to the university.

## International Student and Scholar Services


#### Abstract

Marquis Hall, Room 125

Mailing address: 1155 Union Circle \#311067 Denton, TX 76203-5017 940-565-2195 Fax: 940-565-4822 E-mail: internationaladvising@unt.edu Web site: www.international.unt.edu/advising

International Student and Scholar Services provides immigration information to undergraduate, graduate and Intensive English Language Institute students, UNT faculty and scholars.


## International Center

Marquis Hall, Room 110

Mailing address:
1155 Union Circle \#311067
Denton, TX 76203-5017
940-369-8625
Fax: 940-565-4822
E-mail: international@unt.edu
Web site: www.international.unt.edu/welcome

The International Center provides campus, community and general information, personal assistance, non-academic counseling and support for student activities to all new and continuing international students, scholars and alumni. The IC organizes continuing orientation programs, activities and universitywide events such as the April Celebration of World Cultures.

## National Student Exchange

Honors College
Sage Hall, Room 257

Mailing address:
1155 Union Circle \#310529
Denton, TX 76203-5017
940-565-3305
Fax: 940-369-7370

The Honors College serves as home to the UNT Office of the National Student Exchange.

## Office for Exploring Majors

General Academic Building, Room 220

Mailing address:
1155 Union Circle \#305039
Denton, TX 76203-5017
940-565-2457
Fax: 940-565-4993

## Registrar's Office

Eagle Student Services Center, Rooms 147 and 209

Mailing address:
1155 Union Circle \#311400
Denton, TX 76203-5017
940-565-2111
Fax: 940-565-4463
Web site: www.unt.edu/registrar

Registration; transcripts; grade reports; academic status information; residency determination for continuing and former students; military waivers; enrollment verification/certification; services for veterans; notary service; and athletic eligibility and graduation.

## Sponsored and Special Programs Center

Marquis Hall, Room 106

Mailing address:
1155 Union Circle \#305430
Denton, TX 76203-5017
940-565-2196
Fax: 940-369-7342
E-mail: sspc@unt.edu
Web site: www.international.unt.edu/sspc
The SSPC tailors programs for UNT and IELI international students sponsored by governments, agencies, businesses, and other universities; provides special orientations and personal and academic counseling; reports academic progress to sponsors; and provides direct invoicing for tuition/fees.

## Study Abroad Office

Sage Hall, Room 236
Mailing address:
1155 Union Circle \#311067
Denton, TX 76203-5017
940-565-2207
Fax: 940-565-4822
E-mail: studyabroad@unt.edu
Web site: www.international.unt.edu/studyabroad

The Study Abroad Office provides individual advising on study abroad opportunities to students and faculty; provides information on summer, semester and year-long programs; facilitates international credit transfer; hosts students from other universities; organizes information/orientation for study, travel, work and volunteer abroad programs and national grants for international study; and provides international ID card and traveler's insurance information to traveling faculty, staff and students. The office is a U.S. Passport Acceptance Facility.

## Student Academic Readiness Team (START)

Sage Hall, Room 313
Mailing address:
1155 Union Circle \#305217
Denton, TX 76203-5017
940-565-4403
Fax: 940-565-4324

Advising, placement, support and assessment for students enrolled in developmental education to meet Texas Success Initiative requirements. Provides general support for campus undergraduate retention efforts.

## Student Accounting and University Cashiering Services

Eagle Student Services Center, Room 105
Mailing address:
1155 Union Circle \#310620
Denton, TX 76203-5017
940-565-3225
Fax: 940-565-3877
Online assistance: unt.custhelp.com
Web site: www.unt.edu/tuition
Payments: my.unt.edu
Information and assistance regarding tuition and fee charges, waivers, installment payment of tuition and special fees; refunds; returned checks; identification cards.

## Student Financial Aid and Scholarships

Eagle Student Services Center, Rooms 134 and 228
Mailing address:
1155 Union Circle \#311370
Denton, TX 76203-5017
940-565-2302
Toll free: 877-881-1014
Fax: 940-565-2738
Web site: financialaid.unt.edu

## Student Government Association

University Union, Room 344
Mailing address:
1155 Union Circle \#305069
Denton, TX 76203-5017
940-565-3850
Web site: sga.unt.edu
Student government; student elections, Raupe Travel Grants; Eagle's Nest funding; Freshman Intern Program.

## Student Health and Wellness Center

Chestnut Hall, Second Floor
Mailing address:
1155 Union Circle \#305160
Denton, TX 76203-5017
Main phone: 940-565-2333
Fax: 940-565-4559
24-hour Nurse call line: 877-440-0549
Web site: www.healthcenter.unt.edu
Online appointments: myosh.unt.edu
The Center for Leadership and Service

Mailing address:
1155 Union Circle \#305007
Denton, TX 76203-5017
Phone: 940-565-3021
Fax: 940-369-8440
Web site: www.leadandserve.unt.edu

## Student Legal Services

University Union, Room 411

Mailing address:
1155 Union Circle \#305058
Denton, TX 76203-5017
940-565-2614
Fax: 940-369-7251
Web site: www.unt.edu/legal

Legal advice (landlord/tenant, consumer, debt and credit, etc.) for currently enrolled students.

## University Parking and Transportation Office

Highland Parking Garage
620 Central Avenue
Denton, TX 76201

Parking and Transportation Services: 940-565-3020
E-ride Transportation: 940-565-3014
E-mail: parking.services@unt.edu

## University Police Department

Sullivant Public Safety Center
1700 Wilshire St.
Denton, TX 76201-6572

Police Department: 940-565-3000
Fax: 940-369-8788

## University of North Texas at Dallas

## (UNT Dallas)

7300 University Hills Boulevard
Dallas, TX 75241
972-780-3600 (*3600 dialing from the Denton campus)
Fax: 972-780-3636 (*3636 dialing from the Denton campus)

## General university Internet address

www.dallas.unt.edu
E-mail: untdallas@unt.edu

## Honors College

Main College Office<br>Sage Hall, Room 257<br>Mailing address:<br>1155 Union Circle \#310529<br>Denton, TX 76203-5017<br>940-565-3305<br>Fax: 940-369-7370<br>E-mail: honorscollege@unt.edu<br>Web site: honors.unt.edu<br>\section*{Glênisson de Oliveira, Dean}<br>James Duban, Associate Dean for Research and National Scholarships<br>Eric Gruver, Associate Dean for Academics

The Honors College is dedicated to enriching the undergraduate academic experience for talented, motivated and well-prepared students. Honors 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 classes

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 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, most 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 the undergraduate research track offered by the Honors College. 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. Courses in the research track include HNRS 1500 - Introduction to Research: An Interdisciplinary Perspective; HNRS 3500 - Honors Thesis Proposal Development; and XXXX 4951, Honors College Capstone Thesis (or its departmental equivalent XXXX 4950), which may be taken in any department that offers an undergraduate major. Students in the research track have opportunities to present their research at regional and national conferences and may submit their work for publication in the Honors College online journal of undergraduate research, The Eagle Feather, or in other scholarly journals.

## Special programming and housing

Honors members are invited to participate in many special programs sponsored by the college. These programs include opportunities to have lunch with a professor or dean, hear scholars discuss their work, take trips to local museums, and enjoy free tickets to concerts and other cultural events. Honors students are also eligible to live in Honors Hall. Honors freshmen may live in Rawlins Hall.

## Honors College membership and participation

Honors College membership is open to every qualified student pursuing a baccalaureate degree at the University of North Texas, and membership is compatible with every undergraduate major and program. Honors is a flexible program that allows students to decide each semester on the combination of honors, non-honors and major classes that best suits their needs. Membership in the Honors College is secondary to membership in the college of the student's major, and students in the Honors College can choose from two levels of participation and recognition.

## Eligibility for membership

## College freshmen

Admission to the Honors College is competitive and requires a separate application. To be eligible, freshmen must have a combined math and verbal SAT score of at least 1200 (ACT 27) and be in the top ranks of their high school graduating class, as evidenced by class standing and grade point average. An essay is a required part of the Honors College application. Students who are awarded the UNT Meritorious Scholarship qualify automatically for admission but must submit the completed application. Students whose scores and class rank are slightly below these standards may still apply for membership by submitting a portfolio of materials demonstrating their readiness for honors work. That portfolio may include a personal essay, a list of academic awards, writing samples and letters of recommendation.

## Continuing UNT and transfer students

Continuing UNT students or students transferring to UNT from other institutions of higher learning are eligible to enroll in the Honors College on the basis of their GPA from already completed college work. A cumulative GPA of at least 3.35 qualifies continuing UNT and transfer students for membership in the Honors College, provided that at least one full-time semester of college work has already been completed. Students who will have 72 or more credits upon entering the Honors College are not eligible for membership.

Students transferring to UNT may apply up to 9 honors credits from another NCHC-member honors program or college toward the Honors Scholar or Distinguished Honors Scholar Award. For such courses to apply toward a UNT Honors College award, the grade earned must be B or better. The dean of the Honors College must approve all honors courses from other institutions to be applied toward a UNT Honors College award.

UNT students who join the Honors College after graduation from the Texas Academy of Mathematics and Science may receive up to 9 honors credits for courses taken in TAMS toward the Honors Scholar or Distinguished Honors Scholar Award. For such courses to apply toward a UNT Honors College award, the grade earned must be a B or better. The dean of the Honors College must approve all TAMS courses to be applied toward a UNT Honors College award.

## Programs for participation and recognition in the Honors College

## Honors Scholar Award

The Honors Scholar Award requires 18 hours of Honors credits with a cumulative and Honors GPA of at least 3.0. All members of the Honors College are eligible for this award. At least 12 of the 18 credits must be earned in Honors classes, while the remaining six honors credits may be earned through Honors contracts, mentored research or study abroad. Students who complete the Honors Scholar Award will receive the Honors College medallion and have the accomplishment noted on their UNT transcript.

## Distinguished Honors Scholar Award

The Distinguished Honors Scholar Award requires 18 Honors credits with a cumulative and Honors GPA of at least 3.00, plus an Honors thesis, or thesis replacement acceptable to the Honors College. All members of the Honors College are eligible for this award. At least 12 of the 18 credits must be earned in Honors classes including the Honors thesis course (HNRS/XXXX 4951) or department equivalent (XXXX 4950). The remaining six Honors credits may be earned through Honors contracts, mentored research, study abroad, or domestic exchange. The Honors thesis course, HNRS 4951, or the department equivalent, XXXX 4950, may be taken only once for three hours credit toward the Distinguished Honors Scholar Award. Students who complete the Distinguished Honors Scholar Award receive the Honors College medallion and have the accomplishment noted on their UNT transcript.

## Departmental Honors

Any department or undergraduate degree program at UNT may elect to participate in Departmental Honors. Students should contact the department, the degree program office or the Honors College to find out whether a particular department participates in Departmental Honors.

Students in good standing in the Honors College may pursue Departmental Honors in the department or program of their major. To graduate with Departmental Honors, a student must

1. successfully complete at least 18 honors credits, including at least 9 honors credits in the major department. At least 6 of the 9 credit hours toward the departmental award must be at the 3000 or 4000 level;
2. complete the honors thesis (or an approved substitute) in the major department or program, or in the capstone course within the major or HNRS 4000, or in the Honors College capstone course; and
3. have a cumulative GPA of at least 3.0.

All honors courses to be counted for departmental honors must be taken at UNT and be completed with a grade of B or higher. Up to two successfully completed honors contracts may be applied to Departmental Honors. Requirements for graduating with Departmental Honors are established by the Honors College. Details and additional information may be obtained from the Honors College.

Recordkeeping for Departmental Honors is handled by the Honors College. Students earning Departmental Honors will be recognized at commencement by the Honors College and the department or program in which they earn Honors.

## 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.
6. Honors courses include innovative approaches to course content and teaching, allowing honors courses to serve as campuswide prototypes.
Honors classes at the 1000 and 2000 levels are reserved for members of the Honors College. Students who are not members of the Honors College but have junior status and a GPA of at least 3.5 may request enrollment in honors classes at the 3000 and 4000 levels if space is available after honors students register. The honors academic counselor can assist with enrollment.

## Honors courses that meet University Core Curriculum requirements

Honors courses that meet University Core Curriculum requirements

## National Student Exchange

## Diana Dunklau, Campus Coordinator

An undergraduate student at the University of North Texas may apply to spend a term/semester or a year on exchange at one of nearly 200 colleges and universities that are members of the National Student Exchange, a consortium that provides for students within the United States and Canada what study-abroad programs offer on an international scale. Through NSE a student can travel and live at another university site, take courses that are not offered at UNT, assess an out-of-state institution for future graduate study, and enjoy a part of the United States that is quite different from Texas.

UNT's membership in the National Student Exchange makes it possible for a UNT student to attend another NSE member institution at the same cost as attending UNT, or at the in-state tuition rate of the other university. The student remains enrolled at UNT, with all the advantages of continuous enrollment. Through NSE coordinators on the two campuses, the tasks of advising, registering for classes and securing housing can be worked out to provide the student with a smooth exchange experience. UNT students may apply for financial aid on our campus for the term(s)/semester(s) they will be on exchange.

Students must be enrolled full time at UNT for two consecutive long terms/semesters prior to exchange, including the term/semester in which they apply; they must also have a minimum cumulative UNT GPA of at least 2.5 at the time of application, and when the exchange actually takes place. All aspects of the application process must be completed by February 15, prior to the academic year in which the student wishes to go on exchange. Since exchanges are limited, an exchange through NSE is a privilege for which the student must be selected.

Students who are interested in learning more about an exchange through NSE should contact the campus coordinator to learn the procedures of applying and qualifying. Interested students may also consult the NSE web site at www.nse.org and/or call 940-565-3305 to make an appointment with UNT's campus coordinator.

## Requirements

## Honors Courses that meet University Core Curriculum requirements

## Communication, 6 hours

- ENGL 1311 - Honors Composition I
- ENGL 1321 - Honors Composition II


## Mathematics, 3 hours

- MATH 1710-Calculus I (special section)


## Life and physical sciences, 6 hours

- BIOL 1711 - Honors Biology for Science Majors I
- BIOL 1722 - Honors Biology for Science Majors II (special section)
- CHEM 1412-General Chemistry for the Honors College or
- CHEM 1413 - Honors General Chemistry
- CHEM 1422-General Chemistry for the Honors College
- PHYS 1052 - The Solar System (special section)
- PHYS 1270-Science and Technology of Musical Sound (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

- $\quad$ PSCI 1041 - Honors American Government
- PSCI 1051 - Honors American Government


## Creative arts, 3 hours

- ART 1301 - Honors Art Appreciation
- MUMH 1600 - Music in Human Imagination (special section)
- THEA 1340-Aesthetics of the Theatre Throughout the World (special section)


## Language, philosophy and culture, 3 hours

- ENGL 2211 - Survey of World Literatures from Antiquity to 1700
- ENGL 2221 - Survey of World Literatures from 1700 to the Present


## Social and Behavioral Sciences, 3 hours

- ECON 1110 - Principles of Macroeconomics (special section)
- SOCI 1520 - Contemporary Social Problems (special section)


## Discovery, 3 hours

- ART 1301 - Honors Art Appreciation
- COMM 1440-Honors Classical Argument
- HNRS 1100 - The Good Society
- HNRS 1500-Introduction to Research: An Interdisciplinary Perspective


# College of Arts and Sciences 

Main Office<br>General Academic Building, Room 210<br>Mailing address:<br>1155 Union Circle \#305189<br>Denton, TX 76203-5017<br>940-565-2497<br>Fax: 940-565-4517<br>Web site: www.cas.unt.edu<br>Dean's Office for Undergraduates and Student Advising<br>General Academic Building, Room 220<br>940-565-2051<br>Fax: 940-565-4529<br>Web site: www.cas.unt.edu/advising

## David Holdeman, Dean

Jean B. Schaake, Associate Dean
Steven Cobb, Associate Dean
Kathryn Cullivan, Associate Dean
The College of Arts and Sciences embraces instruction, research and service across a broad spectrum of science, the arts, humanities and social sciences. As a direct result of these activities, the college delivers lively, stimulating programs of study in a thought-provoking, intellectual climate. The college emphasizes the creation of specialized learning links with other areas of knowledge provided by other colleges, with the ultimate goal being to foster an understanding of the complex, multi-faceted world around and beyond us.

The dedicated faculty and staff of the college strive continuously to provide students with a strong, comprehensive general education that will prepare them for successful careers in a rapidly changing and sometimes unpredictable world. Consequently, its degree programs help students develop both the critical thinking ability and the dedicated knowledge base essential for achieving a high quality of life and for being better, more informed citizens.

Consistent with the goals of providing a comprehensive, relevant education, the College of Arts and Sciences prepares students to acquire certain key, basic proficiencies:

1. written and oral communication and mathematics;
2. qualitative and quantitative understanding of the basic processes of the physical and life sciences;
3. working knowledge of a foreign language and foreign culture beyond the two years expected before entering college;
4. 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
5. appropriate levels of knowledge and critical ability in a chosen discipline and its method of inquiry.

Students in the College of Arts and Sciences will receive the intellectual stimulation and the conceptual framework to explore critically the interconnected worlds of self, society and nature. 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, that in most instances, also provide the means to enter graduate schools or a variety of careers.

The college consists of the following departments and areas of study:

Aerospace Studies
Anthropology
Biological Sciences
Chemistry
Communication Studies
Dance and Theatre
Economics
English
Forensic Science
Geography
History
Integrative Studies
International Studies
Jewish and Israel Studies
Mathematics
Media Arts
Military Science
Philosophy and Religion Studies
Physics
Political Science
Psychology
Social Science
Sociology
Spanish
Technical Communication
Women's and Gender Studies
World Languages, Literatures and Cultures

## Academic advising

Academic advisors and counselors are available in the College of Arts and 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 Arts and 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.

## 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 mailed to the address provided. 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 Fine Arts
- Bachelor of Science
- Bachelor of Science in Biochemistry, Biology, Chemistry, Economics, Mathematics, Medical Laboratory Sciences and Physics;
- Professional, preprofessional and specialized programs
- 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 Academics section of this catalog, and all requirements of the arts and 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 Academics 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 Academics section of this catalog.
3. College of Arts and Sciences Degree Requirements: See "Arts and 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 Fine Arts degree requirements

Candidates for the Bachelor of Fine Arts degree 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 Academics section of this catalog.
3. Major Requirements: Major in dance is available. See the Department of Dance and Theatre for specific requirements.
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 or 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 Academics 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 Arts and Sciences must complete the University Core and the Arts and Sciences 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

Discovery (3 hours): See approved list in the Academics section of this catalog.
Communication (English Composition and Rhetoric) (6 hours): See approved list in the Academics section of this catalog. Mathematics (3 hours): See "University Core Curriculum Requirements" in the Academics section of this catalog.
Life and Physical Sciences ( $\mathbf{6}$ hours): See "University Core Curriculum Requirements" in the Academics section of this catalog. American History ( 6 hours): See approved list in the Academics section of this catalog.
Government/Political Science ( $\mathbf{6}$ hours): See approved list in the Academics section of this catalog.
Creative Arts (3 hours): See approved list in the Academics section of this catalog.
Language, Philosophy and Culture (3 hours): See approved list in the Academics section of this catalog. Social and Behavioral Sciences ( $\mathbf{3}$ hours): See approved list in the Academics section of this catalog. Capstone ( $\mathbf{3}$ hours): See approved list in the Academics section of this catalog.

## Arts and Sciences degree requirements

Arts and Sciences degree requirements

## Teacher certification

Note: For teacher certification in mathematics or science, see the Teach North Texas section of this catalog.

The College of Arts and 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 (EDSE 3800, EDSE 3830,EDSE 4060, EDSE 4070, EDSE 4108, EDSE 4118, EDSE 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 web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us. 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<br>Biology (Life Science)<br>Biochemistry (Chemistry, Physical Science)<br>Chemistry (Chemistry, Physical Science)<br>Communication (Speech)<br>Dance<br>English (English Language Arts and Reading)<br>History<br>Mathematics (Math, Math-Physics)<br>Physics (Physics-Math, Physical Science)<br>Social Science (Social Studies)<br>All-Level (Grades EC-12)<br>French<br>German

## Scholarships

## The Charles T. and Mildred L. Newell Memorial Scholarship

To qualify, a student must meet minimum entrance and academic performance standards of the College of Arts and Sciences, enroll as a full-time undergraduate student majoring in a College of Arts and Sciences academic program, and maintain full-time enrollment at the university (unless the applicant has less than twice the number of semester hours required to be full-time remaining in the degree audit).

The deadline to apply for this scholarship is April 1. Applications are available during February and March.

## President's Council Scholarship

To qualify, a student must meet minimum entrance and academic performance standards of the College of Arts and Sciences, enroll as a full-time undergraduate student majoring in a College of Arts and Sciences academic program, and maintain full-time enrollment at the university (unless the applicant has less than twice the number of semester hours required to be full-time remaining in their degree audit).

The deadline to apply for this scholarship is April 1. Applications are available during February and March.

## The Frank C. Spencer Rural Student Scholarship

To qualify, a student must come from a "highly rural" Texas county defined by population density, demonstrate financial need, meet minimum and continuing academic performance standards, and maintain full-time enrollment in a program of the College of Arts and Sciences (unless the applicant has less than twice the number of semester hours required to be full-time remaining in the degree audit).

## Majors

## 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 for the Bachelor's degree as specified in the General university requirements and College of Arts and Sciences requirements.

## 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 Arts and Sciences.
b. If more than one field is chosen from outside the College of Arts and 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 Arts and 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 Arts and 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 Arts and Sciences, GAB, Room 220.

## 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 General university requirements and the College of Arts and Sciences requirements.

## 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 Arts and Sciences.
b. If more than one field is chosen from outside the College of Arts and 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 Arts and Sciences.
d. A minimum grade of C is required in each course counting toward the major.

## Foreign language requirement options

Students may complete either of two options to satisfy the College of Arts and Sciences foreign language requirement.

## Option 1

Must attain intermediate II level (2050) in a foreign language or pass appropriate proficiency exam(s) as specified by the College of Arts and Sciences.

## Option 2

Must first obtain written approval from advisor for inclusion in the student's degree audit. Courses must be chosen in consultation with an academic counselor (GAB 220). Note: Courses used to satisfy Option 2 cannot also be used in the three fields for the integrative studies major.

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.

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 Arts and 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 Arts and Sciences, GAB, Room 220.

## Social Science (teacher certification), BA

A Bachelor of Arts with a major in social science and secondary teaching certification prepares you for a career in public or private education.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in social science (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 Academics section of this catalog and College of Arts and Sciences requirements.

## Major requirements, 57 hours

The Bachelor of Arts 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
- GEOG 1200-Global Societies
- GEOG 2170 - Culture, Environment and Society
- 3 hours of advanced Geography Regional Studies (see Department of Geography section of this catalog for list of advanced Regional Studies 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 4700-Texas
- 3 hours of advanced U.S. History
- 3 hours of advanced European history
- 3 hours of advanced African-, Asian- or Latin American history (see Department of History section of this catalog for list of advanced U.S. history, advanced European history and advanced African, Asian and Latin American courses)
- PSCI 1040 - American Government: Laws and Institutions
- PSCI 1050 - American Government: Process and Policies
- 3 hours of advanced American government (see Department of Political Science section of this catalog for list of advanced American government courses, Field A)
- PSYC 1630-General Psychology I
- SOCI 1510 - Introduction to Sociology


## Other course requirements

- GEOG 1710 - Earth Science
- 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 in 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 web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 4118 - Student Teaching in the Secondary School
- EDSE 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 Arts and Sciences.

## Social Science, BA

After earning a Bachelor of Arts with a major in social science, you will have a greater understanding of societal needs, diverse cultures and individual responsibility. Your viewpoints could prove vital in how a company or organization operates.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Arts 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" and College of Arts and Sciences requirements.

## Major requirements

An interdisciplinary major in social science for the Bachelor of Arts degree requires 48 semester hours in the social sciences, 24 of which must be advanced and must include 18 hours in one field chosen from anthropology, economics, geography (regional science only), history, philosophy, political science, psychology, social work or sociology, plus 30 hours in at least two other of these fields.

## 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 Arts and 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 Arts and Sciences GAB, Room 220.

## 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 (regional science only), history, philosophy, political science, psychology, social work and sociology.

## Women's and Gender Studies minor

A minor in women's and gender studies may be earned by successfully completing 18 semester hours, including WGST 2100, WGST 4100, and four additional 3-hour courses approved for women's and gender studies credit. Nine of the 18 hours taken must be advanced hours. The electives are chosen from an inventory of more than 60 gender-related courses representing nearly every discipline in the university curriculum. A comprehensive listing of available courses, as well as extensive information on the women's and gender studies program, can be found online at www.wmst.unt.edu. All women's and gender studies students are encouraged to meet with the director and/or the advising staff in order to design an academic plan that best complements the major interests of the student. Information on a variety of scholarships and internships for women students is maintained in the women's and gender studies office and on the web site at www.wmst.unt.edu.

Students in women's and gender studies may interact with more than 30 members of the women's and gender studies affiliated faculty who regularly teach courses examining women's roles, activities, and experiences throughout history and across cultures. These interactions expand understanding of gender differences, cultural diversity, and social changes while strengthening critical thinking and communication skills.

Internships provide opportunities for students to experience working at a variety of non-profit organizations in the Denton and Dallas areas.

Students interested in this minor should contact the Director of Women's and Gender Studies, General Academic Building, Room 467, 1155
Union Circle \#305097, Denton, TX 76203-5017; 940-565-2098. E-mail: wmst@unt.edu.

## Undergraduate Academic Certificates

## Jewish and Israel Studies certificate

The Jewish and Israel Studies certificate is an undergraduate academic certificate that enables students and members of the community the flexibility to pursue Jewish and Israel Studies without commitment to the full minor. The required course work in Jewish and Israel Studies promotes interdisciplinary work which will allow students to pursue topics within Jewish and Israel Studies that are most relevant to their career paths and to gain knowledge of the religion, cultures and historical experiences of the Jewish people. The certificate also aims to promote Jewish and Israel Studies in the DFW community.

The Jewish and Israel Studies certificate is open to all majors and to others who are not full-time students. It is administered by the Jewish and Israel Studies program in the College of Arts and Sciences.

To earn a certificate in Jewish and Israel Studies, students must complete 12 hours of Jewish and Israel Studies courses with a grade of C or above. At least nine hours must be upper-division 3000- and 4000-level courses. Students may choose these courses from the entirety of the Jewish and Israel Studies course offerings (listed on our web site, www.jewishstudies.unt.edu) in at least two departments. Three hours of internship credit can be accepted after approval by the director of the Jewish and Israel Studies Program.

For more information or to sign up for the certificate, contact Jewish and Israel Studies at jewish-studies@unt.edu or 940-369-8926.

## 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 the following:

- ANTH 3140 - Latinos in the U.S.
- ANTH 3220 - Mayan Culture
- ANTH 4300 - Migrants and Refugees
- ENGL 3922 - Chicano Literature
- HIST 3150-Historical and Cultural Development of the Mexican-American Community
- PSCI 3100 - Topics in American Government (when taught as "Latino Politics" or "U.S. Immigration Policies")
- SPAN 3140-Mexican Civilization
- THEA 4370 - Contemporary Chicana/Chicano Theatre


## Remaining 9 hours

Select nine hours from at least two departments from the following courses (or other courses as approved by the advisor):

- ANTH 2070 - Introduction to Race and Ethnic Relations or
- SOCI 2070 - Introduction to Race and Ethnic Relations
- ANTH 3140 - Latinos in the U.S.
- ANTH 3210-Meso America
- ANTH 3220 - Mayan Culture
- ANTH 4300 - Migrants and Refugees
- ECON 3150 - Economics of Discrimination
- ENGL 3846-Mexican American Non-Fiction and Criticism
- ENGL 3912 - Topics in American Literature (when taught as "Freedom and Identity in Mexican American Literature")
- ENGL 3922-Chicano Literature
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- HIST 4150-Mexican Immigration and the Chicano Community
- HIST 4155 - Mexican American Autobiography
- HIST 4160 - Chicano Political History: 19th and 20th Century
- 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 4190 - Mexico, 1810-Present
- HIST 4261 - Topics in United States History (when taught as "History of Tejanos/as")
- HIST 4263 - Topics in African-, Asian- or Latin American History
- MUET 3080-Studies in Latin-American Music (when taught as "Mexican Musical Life Across Border")
- PSCI 3100 - Topics in American Government (when taught as "Latino Politics" or "U.S. Immigration Policies")
- PSCI 3700 - Area Politics (when taught as "Latin American Politics")
- SOCI 4540 - Race and Ethnic Minorities
- $\quad$ SOCI 4580 - Immigration and Race in Contemporary U.S.
- SPAN 3130 - Topics in Latin American Culture
- SPAN 3140-Mexican Civilization
- SPAN 3180 - Latin American Culture Through Film
- SPAN 4010 - Aspects of Contemporary Mexican Culture
- SPAN 4385 - Hispanic Culture in the United States
- THEA 4370-Contemporary Chicana/Chicano Theatre
- and other courses as approved by advisor

For more information, please contact Dr. Leticia Anaya, Interim LMAS Director, at lanaya@unt.edu, or at (940) 565-2366; or the UNT College of Arts and Sciences, Integrative Studies Office, Student Advising at GAB 220 or (940) 565-2051.

## Leadership Studies certificate

Students may receive a certificate in leadership studies by successfully completing the following courses:

## Core courses, 6 hours

- UCRS 3600 - Leadership for a Global Society
- UCRS 3610 - Leadership in Practice


## Ethics, 3 hours

Selected from:

- MGMT 3880-Business Ethics and Social Responsibility
- PHIL 1400 - Contemporary Moral Issues
- PHIL 4700 - Environmental Ethics
- 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
- PACS 4050 - Negotiation and Dispute Resolution
- PSCI 3500 - Introduction to Peace Studies
- 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
- PSCI 4822 - International Conflict Management
- PSCI 4823 - International Criminal Tribunals and War Crimes
- PSCI 4850 - Critical Issues in World Politics
- PSCI 4860 - International Political Economy
- SOCI 4750 - World Population Trends and Problems
- UCRS 4500-Global Leadership through Service
- WGST 4200 - Contemporary Issues in Global Feminisms
- (other courses as approved by program advisor)


## Requirements

Arts and Sciences 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.

## Laboratory Science, 3-4 hours

In addition to the university core requirement.
One course from the natural and life sciences or the physical sciences (some majors require specific and/or additional laboratory science courses; see your departmental advisor for more information). Note: The College of Arts and Sciences requires students to complete at least 9 hours of laboratory science (including at least 6 hours in the university core) with at least one course in the natural and life sciences and at least one course in the physical sciences, as listed below:

Natural and Life Sciences

- ARCH 2800 - Archaeological Science
- BIOL 2700 - Human Evolution and Physical Anthropology or
- ANTH 2700 - Introduction to Physical Anthropology
- BIOL 1112 - Contemporary Biology
- BIOL 1122 - Plant Biology
- BIOL 1132 - Environmental Science
- BIOL 1142 - Microbes and Society
- 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 1761 - Honors Biology for Science Majors Laboratory
- BIOL 1720 - Biology for Science Majors II and
- BIOL 1760 - Biology for Science Majors Laboratory or
- BIOL 1722 - Honors Biology for Science Majors II and
- BIOL 1761 - Honors 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
- GEOG 1710 - Earth Science
- GEOL 1610 - Introductory Physical Geology
- HMGT 2460-Introduction to Nutrition Science


## Physical Sciences

- CHEM 1360-Context of Chemistry
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430-Laboratory Sequence for General Chemistry
- CHEM 1412-General Chemistry for the Honors College * and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1413 - Honors General Chemistry * and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1415- General Chemistry for Engineering Majors and
- CHEM 1435-General Chemistry Laboratory for Engineering Majors
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440-Laboratory Sequence for General Chemistry
- CHEM 1422-General Chemistry for the Honors College * and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 1423 - Honors General Chemistry * and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- 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 and
- PHYS 1430-General Physics Laboratory I
- PHYS 1420-General Physics II and
- PHYS 1440-General Physics Laboratory II
- 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
- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics

Note
*For honors students only

## 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). Students pursuing a Bachelor of Science degree should consult their advisor about core requirements.

## College of Arts and Sciences Degree Requirements

## 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 Academics section of this catalog.
3. College of Arts and Sciences Degree Requirements: See "Arts and 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 Fine Arts degree requirements

Candidates for the Bachelor of Fine Arts degree must meet the following requirements.
Hours Required for the Degree: Completion of a minimum of 120 total semester hours; 42 must be advanced.
General University Requirements: See "General Degree Requirements" in the Academics section of this catalog.
Major Requirements: Major in dance is available. See the Department of Dance and Theatre for specific requirements.
Minor: See individual major.
Electives: See individual major.
Other Course Requirements: See individual major.
7. Other Requirements: Completion of all other requirements for a major or 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 Academics 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 Arts and Sciences must complete the University Core and the Arts and Sciences 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

Discovery (3 hours): See approved list in the Academics section of this catalog.
Communication (English Composition and Rhetoric) (6 hours): See approved list in the Academics section of this catalog. Mathematics (3 hours): See "University Core Curriculum Requirements" in the Academics section of this catalog.
Life and Physical Sciences (6 hours): See "University Core Curriculum Requirements" in the Academics section of this catalog. American History ( 6 hours): See approved list in the Academics section of this catalog. Government/Political Science (6 hours): See approved list in the Academics section of this catalog. Creative Arts ( $\mathbf{3}$ hours): See approved list in the Academics section of this catalog. Language, Philosophy and Culture (3 hours): See approved list in the Academics section of this catalog. Social and Behavioral Sciences (3 hours): See approved list in the Academics section of this catalog. Capstone (3 hours): See approved list in the Academics section of this catalog.

## Arts and Sciences degree requirements

Arts and Sciences degree requirements

## Teacher certification

Note: For teacher certification in mathematics or science, see the Teach North Texas section of this catalog.
The College of Arts and 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 (EDSE 3800, EDSE 3830,EDSE 4060, EDSE 4070, EDSE 4108, EDSE 4118, EDSE 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 web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us. 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

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Secondary
Biology (Life Science)
Biochemistry (Chemistry, Physical Science)
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Chemistry (Chemistry, Physical Science)
Communication (Speech)
Dance
English (English Language Arts and Reading)
History
Mathematics (Math, Math-Physics)
Physics (Physics-Math, Physical Science)
Social Science (Social Studies)
All-Level (Grades EC-12)
French
German
Spanish
Theatre

## Interdisciplinary majors and minors

- African-American Studies minor
- Alternative Dispute Resolution minor
- Asian Studies minor
- Classical Studies minor
- Ethnic Studies minor
- Integrative Studies, BA
- Integrative Studies, BS
- International Studies with a concentration in International Business and Economics, BA
- International Studies with a concentration in International Development and Humanitarian Affairs, BA
- International Studies with a concentration in International Security and Diplomacy, BA
- International Studies with a concentration in Peace Studies, BA
- International Studies with a concentration in Regional Studies, BA
- International Studies minor
- Jewish and Israel Studies minor
- LGBT Studies minor
- Mathematics and Science Secondary Teaching minor
- Medical Anthropology minor
- Mexican-American Studies minor
- Peace Studies minor
- Religion Studies minor
- Social Science, BA
- Social Science (teacher certification), BA
- Social Science minor
- Women's and Gender Studies minor


## International Studies

## Bachelor of Arts with a major in International Studies

Main Office, Advising
General Academic Building, Room 470
Mailing address:
1155 Union Circle \#305457
Denton, TX 76203-5017

Web site: internationalstudies.unt.edu

## Emile Sahliyeh, Director

The international studies program 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. These opportunities are concentrated in, but not limited to, five areas of international studies that draw from a variety of social science disciplines.

The program offers a Bachelor of Arts with a major in international studies and concentrations in international security and diplomacy, international business and economics, international development and humanitarian affairs, regional studies, and peace studies, plus a minor in international studies.

## Majors

## International Studies with a concentration in International Business and Economics, BA

During the last few decades, companies 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 international business and economics makes you competitive in the job market.

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 "General University Requirements" in the Academics section of this catalog and the College of Arts and 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


## International 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 4510 - History of Economic Thought
- ECON 4550 - Law and Economics
- ECON 4600 - Economic Development
- ECON 4850 - International Trade
- ECON 4855 - U.S.-Mexico Economic Relations
- FINA 4500 - International Finance
- GEOG 3010 - Economic Geography
- PSCI 4860 - International Political Economy


## Management, 9 hours

- CMHT 4000-Global Discovery in Merchandising and Hospitality Management
- LSCM 3960 - Logistics and Supply Chain Management
- LSCM 4360-Global Alliances and International Supply Chain Management
- LSCM 4530 - E-Logistics in Supply Chain Management
- MGMT 3720-Organizational Behavior
- MGMT 3880-Business Ethics and Social Responsibility
- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4660 - International Management Perspectives
- PACS 4030 - Dispute Resolution in a Global Workplace


## Marketing and business practice, 9 hours

- ACCT 4420 - International Accounting
- BCIS 4720 - Web-Based Information Technologies
- BLAW 4480 - International Business Law
- HMGT 2800 - Foundations of International Travel and Tourism
- HMGT 2810 - Introduction to International Sustainable Tourism
- MDSE 2750 - Consumers in a Global Market
- MDSE 4003-Global Discovery: Hong Kong/China
- MDSE 4010-Global Sourcing
- MKTG 2650 - Culture and Consumption
- MKTG 3720 - Internet Marketing Concepts and Strategy
- MKTG 4280-Global Marketing Issues and Practice
- MKTG 4620 - E-Commerce Marketing Tools and Applications
- MKTG 4630 - Electronic Retailing and Promotion Strategies
- MKTG 4810 - Special Topics in Marketing or Logistics


## Regional choice, 9 hours

Students should select one region of the world relevant to their concentration and foreign language and take 9 hours in that region. See "Regional choice" under the concentration in Regional Studies.

## Note

Some courses (e.g., INST 4850 and INST 4900) may be repeated for credit as topics vary and if the subject is appropriate.

## 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 Arts and Sciences foreign language requirement can substitute 6 hours of advanced English writing courses with prior approval of the International Studies director or academic advisor.
- 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.


## 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 Arts and Sciences.

## Other requirements

To graduate with a Bachelor of Arts degree with a major in international studies, a student must have achieved a minimum cumulative GPA of 2.0 at the time of graduation.

International Studies with a concentration in International Development and Humanitarian Affairs, BA

During the last few decades, companies 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 international development and humanitarian affairs prepares you for working with relief and aid organizations.

This major is designed to prepare students for jobs in the public and private sections, 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 "General University Requirements" in the Academics section of this catalog and the College of Arts and 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


## International Development and Humanitarian Affairs concentration, 36 hours

Twelve of the 36 hours must be advanced-level courses.
Development of professional skills, 6 hours

- EADP 3010 - Introduction to Emergency Management
- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 3080 - Leadership and Organizational Behavior *
- JOUR 3410 - Public Relations for Non-Profits
- PACS 4200 - Leadership Theory and Practice for Volunteer Managers
- PACS 4210 - Introduction to Philanthropy and Fundraising
- PACS 4220 - Proposal Writing and Grants Administration
- PACS 4240 - Volunteer Management Concepts and Applications
- PACS 4260 - Volunteer Program Planning and Evaluation
- PACS 4300 - Nonprofit Leadership Capstone


## Substantive issue areas, 21 hours

Take 9 hours in sustainable development and 12 hours in social development and public health.

## Sustainable development

- ANTH 4400 - Environmental Anthropology
- BIOL 3160 - Conservation Biology *
- BIOL 3170 - Plants and Human Society *
- BIOL 4053 - Introduction to Subantarctic Biocultural Conservation
- BIOL 4100 - Introduction to Environmental Impact Assessment *
- BIOL 4400 - Wetland Ecology and Management
- ECON 4440 - Economics of Natural Resources and Environment *
- GEOG 2170-Culture, Environment and Society
- GEOG 3750 - Geography of Contemporary Sub-Saharan Africa
- GEOG 3770 - Latin America: Geography and Globalization
- GEOG 4420 - Critical Resource Geography: Population, Nature, Food and Energy *
- HMGT 2810 - Introduction to International Sustainable Tourism
- INST 4850 - International Studies Seminar
- MDSE 4560 - Sustainable Strategies in Merchandising
- PHIL 2500 - Introduction to Contemporary Environmental Issues
- PHIL 4650 - Philosophy of Water
- PHIL 4700 - Environmental Ethics
- PHIL 4740 - Environmental Justice
- SOCI 4260 - Topics in Sociology


## Social development and public health

- AGER 2000-Global Aging and Individual Aging
- AGER 4560 - Minority Aging
- AGER 4780-Aging Programs and Services
- ANTH 2035 - Urban Poverty
- ANTH 2070 - Introduction to Race and Ethnic Relations
- ANTH 2200-Gender in Cross-Cultural Perspective
- ANTH 4070 - Urban Ethnic Cultures
- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- ANTH 4220 - Anthropology in Public Health
- ANTH 4300 - Migrants and Refugees
- ANTH 4500 - Language and Culture
- ANTH 4550 - Race, Ethnicity and Identity
- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 3045 - Disaster Response and Recovery
- EADP 4010 - Public Health and Disasters *
- EADP 4015 - Flood Plain Management
- EADP 4040 - International Disasters
- EADP 4050- Special Populations and Disasters
- EADP 4060-Technology in Emergency Management
- ECON 4180 - The Economics of Health Care
- GEOG 4120 - Medical Geography *
- GEOG 4580 - GIS in Health
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- INST 2500 - Global Perspectives: Cultural Competency and Citizenship
- INST 4850 - International Studies Seminar
- PSCI 3500 - Introduction to Peace Studies
- PSCI 3600-Governments and Politics around the World
- PSCI 4520 - International Human Rights
- PSCI 4640 - Revolution and Political Violence
- PSCI 4660 - Democracy and Democratization
- PSCI 4670 - Third World Politics *
- PSCI 4720 - Ethnicity in World Politics
- PSYC 4300 - Psychosocial Issues in HIVIAIDS
- SOCI 2010 - Race, Class, Gender and Ethnicity
- SOCI 2070 - Introduction to Race and Ethnic Relations
- SOCI 3120 - Sociology of Health and Illness
- SOCI 3330-Social Stratification *
- SOCI 4160 - Developing Societies
- SOCI 4750 - World Population Trends and Problems
- WGST 2420 - Race, Class, Gender and Ethnicity
- WGST 4200 - Contemporary Issues in Global Feminisms


## Regional choice, 9 hours

Students should select one region of the world relevant to their concentration and foreign language and take 9 hours in that region. See "Regional choice" under the concentration in Regional Studies.

## Note

* May be repeated for credit as topics vary.

Some courses (e.g., INST 4850 and INST 4900) may be repeated for credit as topics vary and if the subject is appropriate.

## 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 Arts and Sciences foreign language requirement can substitute 6 hours of advanced English writing courses with prior approval of the International Studies director or academic advisor.
- 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.


## 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 Arts and Sciences.

## Other requirements

To graduate with a Bachelor of Arts degree with a major in international studies, a student must have achieved a minimum cumulative GPA of 2.0 at the time of graduation.

International Studies with a concentration in International Security and Diplomacy, BA

During the last few decades, companies 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 international security and diplomacy makes you an excellent candidate for a variety of positions.

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 "General University Requirements" in the Academics section of this catalog and the College of Arts and 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


## International Security and Diplomacy concentration, 36 hours

Twelve of the 36 hours must be advanced-level courses.

## International politics and diplomacy, 9 hours

- HIST 3710 - Diplomatic History of the United States to 1900
- HIST 3720 - Diplomatic History of the United States from 1900 to 1945
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4360 - Europe since 1945
- HIST 4790 - Diplomatic History of the United States Since 1945
- HIST 4800 - The Relations Between the United States and Latin American Countries
- INST 4850 - International Studies Seminar *
- PACS 4000 - Mediation
- PACS 4050 - Negotiation and Dispute Resolution
- PSCI 3500 - Introduction to Peace Studies
- PSCI 3810 - International Relations
- PSCI 4360 - International Ethics
- PSCI 4520 - International Human Rights
- PSCI 4800 - The Politics of International Organization
- PSCI 4810 - International Law
- PSCI 4820 - Contemporary International Problems
- PSCI 4830 - American Foreign Policy
- PSCI 4840 - Major Problems of American Foreign Policy
- PSCI 4850 - Critical Issues in World Politics


## International conflict and national security, 9 hours

- ANTH 4701 - Topics in Sociocultural Anthropology (when approved)
- CJUS 4330 - Domestic and International Terrorism
- EADP 3010 - Introduction to Emergency Management
- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 3045 - Disaster Response and Recovery
- EADP 4040 - International Disasters
- EADP 4050- Special Populations and Disasters
- EADP 4090 - Terrorism and Emergency Management *
- INST 4850 - International Studies Seminar *
- PSCI 4821 - International Conflict
- PSCI 4822 - International Conflict Management
- PSCI 4823 - International Criminal Tribunals and War Crimes
- PSCI 4825 - Conflict and Peacemaking in the Middle East


## Military history, 9 hours

- HIST 4070 - World War II
- HIST 4071 - Korea, Vietnam and the American Military Experience
- HIST 4090 - Britain and Ireland in the Age of Revolution, 1603-1832
- HIST 4125 - The Military History of England and its Colonies
- HIST 4261 - Topics in United States History (when approved)
- HIST 4262 - Topics in European History (when approved)
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4350 - Europe, 1914-1945
- HIST 4630 - U.S. Navy, 1775-Present: Sails
- HIST 4640 - Early United States Military History to 1815
- HIST 4650 - Evolution of Warfare to Napoleon
- HIST 4660 - Evolution of Warfare from Napoleon
- INST 4850 - International Studies Seminar *
- PSCI 4630 - The Military in Politics
- PSCI 4640 - Revolution and Political Violence


## Regional choice, 9 hours

Students should select one region of the world relevant to their concentration and foreign language requirement and take 9 hours in that region. See "Regional choice" under the concentration in Regional Studies.

## Note

* May be repeated for credit as topics vary.

Some courses (e.g., INST 4850 and INST 4900) may be repeated for credit as topics vary and if the subject is appropriate.

## 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 Arts and Sciences foreign language requirement can substitute 6 hours of advanced English writing courses with prior approval of the International Studies director or academic advisor.
- 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.


## 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 Arts and Sciences.

## Other requirements

To graduate with a Bachelor of Arts degree with a major in international studies, a student must have achieved a minimum cumulative GPA of 2.0 at the time of graduation.

## International Studies with a concentration in Peace Studies, BA

During the last few decades, companies 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 peace studies prepares you to work in conflict resolution.

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 "General University Requirements" in the Academics section of this catalog and the College of Arts and 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


## Peace Studies concentration, 36 hours

Twelve of the 36 hours must be advanced-level courses.

- PSCI 3500 - Introduction to Peace Studies (3 hours)


## Determinants of violence, 6 hours

- CJUS 4330 - Domestic and International Terrorism
- CJUS 4350 - Seminar on Violence *
- EADP 4090-Terrorism and Emergency Management *
- PSCI 4640-Revolution and Political Violence
- PSCI 4821 - International Conflict
- PSCI 4825-Conflict and Peacemaking in the Middle East


## Conflict management, 6 hours

- COMM 3320-Communication and Conflict Management *
- PACS 4000 - Mediation
- PACS 4050 - Negotiation and Dispute Resolution
- PSCI 4660 - Democracy and Democratization
- PSCI 4822 - International Conflict Management
- PSCI 4823 - International Criminal Tribunals and War Crimes
- PSCI 4825-Conflict and Peacemaking in the Middle East


## Issues of justice, 6 hours

- ANTH 2035 - Urban Poverty *
- ECON 3150-Economics of Discrimination *
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- HIST 4390 - The Holocaust, 1933-1945
- HIST 4440 - African-American History and Culture to 1865
- HIST 4450 - African-American History and Culture Since 1865
- HIST 4455 - History of Black Women in America
- HIST 4465 - Women in the United States to 1900
- HIST 4470 - Women in the United States Since 1900
- HIST 4780 - Indian Policy in United States History
- PSCI 3100 - Topics in American Government *
- PSCI 4210 - Constitutional Law: Rights and Liberties
- PSCI 4360 - International Ethics
- PSCI 4520 - International Human Rights
- PSCI 4660 - Democracy and Democratization
- PSCI 4720 - Ethnicity in World Politics
- PSCI 4800 - The Politics of International Organization
- PSCI 4810 - International Law *
- PSCI 4823 - International Criminal Tribunals and War Crimes
- PSCI 4824 - Islam, Democracy and Human Rights
- SOCI 3330-Social Stratification *
- SOCI 4160 - Developing Societies
- SOWK 4540 - Human Diversity for the Helping Professions *


## Additional courses, 6 hours

Selected from approved courses in the three sub-areas listed above.

## Regional choice, 9 hours

Students should select one region of the world relevant to their concentration and take 9 hours in that region. See "Regional choice" under the concentration in Regional Studies.

## Note

* May be repeated for credit as topics vary.

Some courses (e.g., INST 4850 and INST 4900) may be repeated for credit as topics vary and if the subject is appropriate.

## 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 Arts and Sciences foreign language requirement can substitute 6 hours of advanced English writing courses with prior approval of the International Studies director or academic advisor.
- 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.


## Minor

Optional.

## Electives

[^1]To graduate with a Bachelor of Arts degree with a major in international studies, a student must have achieved a minimum cumulative GPA of 2.0 at the time of graduation.

## International Studies with a concentration in Regional Studies, BA

During the last few decades, companies 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 regional studies makes you a valuable asset to any organization working in your chosen region.

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 "General University Requirements" in the Academics section of this catalog and the College of Arts and 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


## Regional Studies concentration, 36 hours

Twelve of the 36 hours must be advanced-level courses.

## World survey, 9 hours

- ANTH 1100 - World Cultures
- ANTH 1150 - World Cultures Through Film
- ANTH 2200-Gender in Cross-Cultural Perspective
- ANTH 2300-Culture and Society
- ANTH 4750-Culture Change
- GEOG 1200-Global Societies
- GEOG 2170 - Culture, Environment and Society
- HIST 1060 - World History from the Sixteenth Century
- HIST 4070 - World War II
- INST 2500 - Global Perspectives: Cultural Competency and Citizenship
- MUET 3030 - Music Cultures of the World
- PHIL 2070-Great Religions
- PSCI 3600-Governments and Politics around the World
- PSCI 4640 - Revolution and Political Violence
- PSCI 4660 - Democracy and Democratization
- PSCI 4670 - Third World Politics
- PSCI 4700 - Topics in Comparative Politics (when approved)
- PSCI 4720 - Ethnicity in World Politics
- SOCI 3700 - Sociology of Religion
- SOCI 4750 - World Population Trends and Problems


## Regional choice, 18 hours

Select two regions from the following four regions of the world and take 9 hours in each.

## Europe

- ANTH 3600 - Peoples and Cultures of Europe
- GEOG 4030 - British Isles Field School *
- 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 20th Century
- HIST 4090 - Britain and Ireland in the Age of Revolution, 1603-1832
- HIST 4100 - Modern Britain Since 1830
- HIST 4105 - Britain Since 1945
- HIST 4110 - British Empire and Commonwealth
- HIST 4125 - The Military History of England and its Colonies
- HIST 4262 - Topics in European History (when approved)
- HIST 4301 - Napoleonic Europe, 1799-1815
- HIST 4320 - Anti-Semitism in Europe, French Revolution to Present
- HIST 4335 - Age of Revolutions: Europe, 1700-1918
- HIST 4340 - Europe in the Nineteenth Century, 1815-1914
- HIST 4350 - Europe, 1914-1945
- HIST 4360 - Europe since 1945
- 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
- PSCI 3700 - Area Politics


## Latin America

- AEAH 4818 - Topics in Latin American Art (when approved)
- AEAH 4820 - Pre-Columbian Art of Mesoamerica *
- ANTH 3200 - Peoples and Cultures of Latin America
- ANTH 3210-Meso America
- BIOL 4053 - Introduction to Subantarctic Biocultural Conservation
- ECON 4855 - U.S.-Mexico Economic Relations
- GEOG 3770 - Latin America: Geography and Globalization
- GEOG 3780-Geography of Mexico
- 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 4190 - Mexico, 1810-Present
- HIST 4263 - Topics in African-, Asian- or Latin American History (when approved)
- PSCI 3700 - Area Politics
- PSCI 4670 - Third World Politics
- SPAN 3130 - Topics in Latin American Culture


## Asia

- AEAH 4823-Asian Art
- AEAH 4824 - Topics in Asian Art (when approved)
- ANTH 3300 - Peoples and Cultures of the Pacific
- ANTH 3700-Peoples and Cultures of South Asia
- ANTH 3710 - Peoples and Cultures of East Asia
- ANTH 3720 - Peoples and Cultures of Southeast Asia
- GEOG 4070 - China Field School
- HIST 4263 - Topics in African-, Asian- or Latin American History (when approved)
- HIST 4283 - Decolonization in Asia and Africa
- HIST 4550 - Imperial China
- HIST 4560 - Modern China
- HIST 4570-Japanese History
- HIST 4605 - History of South Asia, 1757-1947
- HIST 4610 - Contemporary South Asia
- PHIL 3620 - South Asian Philosophy and Religion
- PHIL 3630 - Jainism
- PHIL 3665 - Eastern Religion and the Environment
- PHIL 3680 - Buddhism, Daoism, Shintoism
- PSCI 3700 - Area Politics (when applicable)


## Africa and the Middle East

- AEAH 4822 - African Art
- AEAH 4825 - Topics in Islamic and/or Middle Eastern Art (when approved)
- ANTH 3400 - Peoples and Cultures of Africa
- ANTH 3500-Cultures and Civilizations of the Middle East
- DANC 3617 - African Music and Movement
- GEOG 3750-Geography of Contemporary Sub-Saharan Africa
- GEOG 4040-Ghana Field School *
- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4263 - Topics in African-, Asian- or Latin American History (when approved)
- HIST 4283 - Decolonization in Asia and Africa
- HIST 4580 - Africa to the Nineteenth Century
- HIST 4590 - Modern Africa
- INST 4850 - International Studies Seminar
- MUET 3617 - African Music and Movement
- PSCI 3700 - Area Politics (when applicable)
- PSCI 4670 - Third World Politics
- PSCI 4710 - Middle East Politics: Critical Issues
- PSCI 4824 - Islam, Democracy and Human Rights
- PSCI 4825 - Conflict and Peacemaking in the Middle East


## Additional area of concentration, 9 hours

Select 9 hours from a second area of concentration:

- International Security and Diplomacy
- International Business and Economics
- International Development and Humanitarian Affairs
- Peace Studies


## Foreign language for Regional Studies students

In their choice of a foreign language to satisfy degree requirements, students who select Regional Studies as their area of concentration must choose a language that complements their primary area of concentration. For example, students who choose Asian studies as their area of concentration may select either Chinese or Japanese; students who choose Latin America may select Spanish; students who choose European Studies may choose German, French, Italian, Spanish or Russian; students who choose Africa and the Middle East may select Arabic or French.

## Note

* May be repeated for credit as topics vary.

Some courses (e.g., INST 4850 and INST 4900) may be repeated for credit as topics vary and if the subject is appropriate.

## 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 Arts and Sciences foreign language requirement can substitute 6 hours of advanced English writing courses with prior approval of the International Studies director or academic advisor.
- 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.


## 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 Arts and Sciences.

## Other requirements

To graduate with a Bachelor of Arts degree with a major in international studies, a student must have achieved a minimum cumulative GPA of 2.0 at the time of graduation.

## Minors

## International Studies minor

A minor in international studies requires 18 hours, including at least 6 advanced hours chosen from a multidisciplinary list of courses. Nine hours must be in one area of concentration, with the remaining hours distributed between one or two other areas. See the international studies concentrations for areas and courses:

- International Studies with a concentration in International Business and Economics
- International Studies with a concentration in International Development and Humanitarian Affairs
- International Studies with a concentration in International Security and Diplomacy
- International Studies with a concentration in Peace Studies
- International Studies with a concentration in Regional Studies


## Undergraduate Academic Certificates

## Arab and Islamic Studies certificate

The Arab and Islamic studies certificate is an undergraduate academic certificate designed to enable students to acquire knowledge skills about Arab and Islamic cultures, economies, societies and politics. The required course work in Arab and Islamic studies will help students develop cross-cultural communication skills and enhance their competitiveness to enter a professional program or occupation related to the Arab and Islamic worlds.

The Arab and Islamic studies certificate is open to all majors. It is administered by the International Studies Program in the College of Arts and Sciences in collaboration with the Contemporary Arab and Muslim Cultural Studies Institute (CAMCSI) in the College of Visual Arts and Design.

Students are strongly encouraged to achieve Arabic language proficiency through the level of LANG 1020 by completing course work or through examination

## Course requirements, 12 hours

To earn an Arab and Islamic studies certificate, students must complete 12 hours at UNT in such areas as the following (other courses may be used if approved by the certificate advisor):

## Culture and Art

- AEAH 4805 - Topics in Medieval Art
- AEAH 4824 - Topics in Asian Art
- AEAH 4825 - Topics in Islamic and/or Middle Eastern Art
- ANTH 3500-Cultures and Civilizations of the Middle East
- MRTS 4415 - Topics in Film and Television Genres


## History

- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4283 - Decolonization in Asia and Africa


## Politics

- INST 4850 - International Studies Seminar (when taught as "Women in the Middle East," "Political Economy and Governments of the Middle East," or "International Relations of the Middle East")
- PSCI 4710 - Middle East Politics: Critical Issues
- PSCI 4824 - Islam, Democracy and Human Rights
- PSCI 4825 - Conflict and Peacemaking in the Middle East


## Other requirements

Students must also:

1. Acquire Arab and Islamic worlds experience via one or more of the following:
a. Study abroad in an Arab or Islamic country
b. Internship in an area related to the Arab and Islamic worlds
c. Volunteer service in projects related to the Arab and Islamic worlds
2. Participate in 5 international events or activities on campus or in the DFW community related to Arab and Islamic affairs. Include documentation of participating in these activities along with a summary report.
Students successfully completing the above requirements will file for the Arab and Islamic studies certificate in the International Studies Program and the certificate will be posted to their UNT transcript. The Contemporary Arab and Muslim Cultural Studies Institute (CAMCSI) will also honor students graduating with the Arab and Islamic studies certificate with an annual reception in the spring semester.

## Global Perspectives certificate

The global perspectives certificate is an undergraduate academic certificate designed to enable students to acquire knowledge, skills and attitudes in order to become a globally aware citizen of the world. The required course work and international experiences help students develop crosscultural communication skills and will enhance their competitiveness to enter a professional program or the global workforce.

The global perspectives certificate is open to all majors and is administered through each school and college in collaboration with UNTInternational. Students successfully completing the requirements below will file for the certificate in global perspectives in their school or college, and the certificate will be posted to their UNT transcript.

To earn a global perspectives certificate, a student must complete the following:

## Language proficiency

Achieve language proficiency in one foreign language through elementary II level by completing course work or through examination.

## Course work, 12 hours

- INST 2100 - Introduction to International Studies


## Plus 9 advanced hours

The remaining 9 advanced hours as approved in advance by the student's academic dean and in such areas as:

- International relations
- Global business, economics or resources
- Country or region studies
- Cultural perspectives


## International experience

- Study abroad
- Student exchange
- Internship
- Volunteer service projects abroad
- Student Teaching Abroad


## Campus or community events

Participate in eight international events or activities on campus or in the community other than those related to the student's own country. Include documentation of these activities, especially leadership contributions, along with the synthesis report.

## Reflection and synthesis report/project

Prepare and present a reflection and synthesis report/project in the semester the student files for the certificate. Presentations are made in the student's school or college or at an event hosted by UNT-International.

## Preprofessional studies

## Office of Health Professions

General Academic Building, Room 220

Mailing address:
1155 Union Circle \#305189
University of North Texas
Denton, TX 76203-5017
940-565-2051
Fax: 940-565-4529

Web site: www.cas.unt.edu/advising/health-professions

## Debrah Beck, Assistant Dean of Health Professions Todd Lang, Senior Counselor

The Office of Health Professions assists all UNT students preparing for admission to a graduate program in a health profession. Counselors 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 completing professional school requirements is tracked by professionals who provide one-on-one advising, information on entrance requirements, the application process, letters of recommendation and workshops on the interview process.

The goal of the Office of Health Professions is to help students prepare for admission to a professional school through advising, seminars and workshops. Students should meet with a staff member in the Office of Health Professions and also their major academic advisor once a semester to make certain the student meets their goal for graduation and application to professional schools.

For further information, e-mail either Todd.Lang@unt.edu or Debrah.Beck@unt.edu, or call 940-565-2051 to schedule an appointment.

## Health professions scholarships

## Joint Admission Medical Program (JAMP)

The 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. The program was created to award undergraduate and medical school scholarships to qualified students. It also provides for the admission of those students who satisfy both academic and non-academic requirements to at least one participating medical school.

Scholarship money will be awarded each term/semester beginning in the spring semester of the student's sophomore year of college and also for summer internships at a Texas medical school. Special mentoring and personal assistance is provided to prepare for medical school by the UNT JAMP faculty director.

The JAMP scholarship is for newly enrolled freshman students who are eligible for a Pell Grant or have an estimated family contribution of $\$ 8,000$ or less, who are enrolled in 27 hours cumulatively over the fall and spring semesters at the University of North Texas, and who have received a score equal to or higher than the mean score for Texas on the SAT and/or ACT. The students must maintain a 3.25 GPA or higher in course work. This scholarship is only for premedical students. For additional information, see the state JAMP web site (www.TexasJamp.org) or contact the JAMP faculty director in GAB, Room 220. This scholarship deadline is October 1 of the student's sophomore year.

## Dr. Glenn Mitchell Memorial Scholarship

To qualify, a student must be a premedical student, should have completed 60 hours of premedical courses, must demonstrate academic excellence and must be competitive for admission to medical school.

This scholarship application is available February through March of each year. The scholarship will be awarded for the following fall and spring terms/semesters.

## Rafes Premedical Scholarship

To qualify, a student must be a full-time UNT premedical student, should currently be enrolled in freshman biology and/or chemistry, demonstrate scholastic excellence and be competitive for admission to medical school.

This scholarship application is available February through March of each year. The scholarship will be awarded for the following fall and spring terms/semesters.

## Charles and Mabel Saunders Pre-Dental Scholarship

To qualify, a student must be a pre-dental student, must have 60 hours of pre-dental courses and must demonstrate academic excellence.
This scholarship application is available February 1 through March 1 of each year. The scholarship will be awarded for the following fall and spring terms/semesters.

## Other preprofessional studies

## 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 Studies.

## Pre-law

Future law school students should take courses that emphasize writing and oral skills, research into problems facing society, logical reasoning, the American legal system and law. There is not, however, a specific major recommended or suggested for students interested in a legal career. Pre-law students may wish to consider a certificate of legal studies. Please contact the department for more information. Pre-law students should take the Law School Admission Test during the summer before or the fall term/semester of their senior year. For further advice, students should consult early in their freshman or sophomore year at UNT with Dr. Wendy Watson, the pre-law advisor, in Wooten Hall, Room 153. E-mail: prelaw@unt.edu.

## Teach North Texas

Main Departmental Office<br>Wooten Hall, Room 337<br>Mailing address:<br>1155 Union Circle \#305028<br>Denton, TX 76203-5017<br>940-565-2265

Fax: 940-565-3546

Web site: www.teachnorthtexas.unt.edu

Pamela Harrell, Co-Director
Ruthanne Thompson, Co-Director

## Faculty

Biehahn, Collier, Jacobs, Sherman, Terry, Walls, Watson
For more information about the UNT faculty, go to the faculty page.
UNT is authorized to recommend secondary and all-level teacher certification for students who have completed a baccalaureate degree in biology, chemistry, biochemistry, 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. In order 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 student 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 Advising Office in Matthews Hall, Room 103 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:

## Course requirements

- TNTX 1100 - Secondary Teacher Preparation I: Inquiry Approaches to Teaching
- TNTX 1200 - Secondary Teacher Education Preparation II: Inquiry-Based Lesson Design
- PHIL 2600 - Ethics in Science
- EDSE 3500 - Knowing and Learning in Mathematics, Science and Computer Science
- EDSE 4000 - Classroom Interactions
- EDSE 4500 - Project-Based Instruction in Math, Science and Computer Science
- EDSE 4608 - Apprentice Teaching I in Mathematics, Science and Computer Science and
- EDSE 4618 - Apprentice Teaching II in Mathematics, Science and Computer Science
- EDSE 4628 - Apprentice Teaching Seminar in Science, Math and Computer Science


## 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 EDSE 4608, EDSE 4618 and/or EDSE 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 Bachelor of Arts with a major in mathematics (teacher certification) or the Bachelor of Science in Mathematics (teacher certification). Students who elect this option will not be recommended for state licensure by UNT and should consult a College of Arts and Sciences academic advisor for additional information regarding degree completion, including satisfying the University Core Capstone requirement and the 42 advanced hours requirement.
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 Anthropology

Main Office
Chilton Hall, Room 330Q
Mailing address:
1155 Union Circle \#310409
Denton, TX 76203-5017
940-565-2290
Fax: 940-369-7833
E-mail: anthropology@unt.edu
Web site: anthropology.unt.edu

## Lisa Henry, Chair

## Faculty

The Department of Anthropology coordinates and directs a program 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.

Courses in anthropology are grouped to provide students with an understanding of human physical, social, and cultural complexity, and the relationships of humans to one another and the environment. Physical anthropology provides an understanding of human origins and human biological variability. Linguistic anthropology adds to the understanding of language and other forms of human communication within the context of culture. Archaeology provides a sense of the past by exploring the changes and development of ancient cultures and environments. Sociocultural anthropology provides appreciation and understanding of human social and cultural patterns and human behavior.

## Social Science major

Students may use anthropology in pursuing a Bachelor of Arts degree with a major in social science that requires completion of at least 48 semester hours in social sciences, including 18 hours in anthropology and 30 hours in at least two other social science disciplines; 24 hours of the above must be taken from upper-division levels (3000 or 4000). See "Interdisciplinary Majors" in the College of Arts and Sciences section of this catalog for an example of courses distributed over four years.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

Major of 36 hours in anthropology, including:

- ANTH 2300-Culture and Society
- ANTH 2700 - Introduction to Physical Anthropology
- ARCH 2800 - Archaeological Science
- ANTH 4021 - Development of Anthropological Thought
- At least one "geographic area" class (from courses numbered ANTH 3100-3900)
- ANTH 4011 - Anthropological Field Methods
or
- A second area class (from courses numbered ANTH 3100-3900)


## Additional requirements

Of the remaining 18 elective hours, 15 must be taken at the upper-division level ( 3000 or 4000 ), with a minimum of 6 hours from the 4000 level. A maximum of 6 hours of field school and a maximum of 3 hours of ANTH 4920 may be applied toward satisfying the 36-hour requirement.

## Other course requirements

In addition to the 36 hours of anthropology, candidates must take the 1010 and 1020 courses from the Department of Foreign Languages and Literatures (or place out by examination), and 3 credit hours of an outside elective, including one of the following:

- PHIL 2330 - Introduction to Modern Philosophy
- PHIL 2600 - Ethics in Science
- GEOG 2170 - Culture, Environment and Society
- GEOG 1200-Global Societies
- HIST 1050 - World History to the Sixteenth Century
- HIST 1060 - World History from the Sixteenth Century


## Minor

No minor is required.

## Electives

See individual degree plan (12 hours of free electives must be advanced).

## Other requirements

- A 2.0 grade point average must be maintained in all courses;
- Transfer course work to be substituted for required anthropology courses must be approved by a student's faculty advisor during the degree plan process;
- Completion in residence of 30 hours.


## Minors

## Anthropology minor

A minor requires completion of 18 hours in anthropology.

- ANTH 1010
- one introductory (2000-level) course
- 6 hours from the upper-division level (3000 or 4000)
- 6 hours of any level anthropology courses


## Ethnic Studies minor

A minor in ethnic studies requires completion of 18 hours (6 must be advanced).

## Required courses

- ANTH 2070 - Introduction to Race and Ethnic Relations or
- SOCI 2070 - Introduction to Race and Ethnic Relations


## 6 hours from

- ANTH 3101 - American Culture and Society
- ANTH 4550 - Race, Ethnicity and Identity
- ANTH 4701 - Topics in Sociocultural Anthropology
- SOCI 4540 - Race and Ethnic Minorities
- SOWK 4540 - Human Diversity for the Helping Professions


## 9 additional hours

The remaining 9 hours are selected from a list of approved electives.

## Medical Anthropology minor

A minor in medical anthropology requires completion of 18 hours ( 6 must be advanced).

## Requirements

## 3 hours from

- ANTH 1010 - Introduction to Anthropology
- ANTH 1100 - World Cultures
- ANTH 2300 - Culture and Society


## 3 hours from

- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- ANTH 4220 - Anthropology in Public Health


## Approved electives, 12 hours

- ANTH 3331 - Forensic Anthropology
- ANTH 4210-Culture and Human Sexuality
- ANTH 4701 - Topics in Sociocultural Anthropology (when taught as "Psychological Anthropology")
- ANTH 4701 - Topics in Sociocultural Anthropology (when taught as "Holistic Health and Alternative Healing")
- ANTH 4701 - Topics in Sociocultural Anthropology (when taught as "Ethnicity, Poverty and Health")
- ANTH 4801 - Topics in Physical Anthropology (when taught as "Biocultural Perspectives on Health")
- ANTH 4801 - Topics in Physical Anthropology (when taught as "Evolution")
- SOCI 3110 - Sociology of Mental Health, Mental Illness and Mental Health Care
- SOCI 3120 - Sociology of Health and Illness
- SOCI 4250 - Gender and Society
- SOCI 4550 - Sociology of Aging
- AGER 3480 - Psychology of Adult Development and Aging
- AGER 4020 - Psychology of Death and Dying
- AGER 4750-Sexuality and Aging
- BEHV 3200 - Science, Skepticism and Weird Behavior
- PHIL 1400 - Contemporary Moral Issues
- PSYC 3490 - Psychology of Women
- PSYC 4020 - Psychology of Death and Dying
- PSYC 4300 - Psychosocial Issues in HIVIAIDS
- HLTH 2200 - Family Life and Human Sexuality
- BIOL 2301 - Human Anatomy and Physiology I and
- BIOL 2311 - Human Anatomy and Physiology I Laboratory
- BIOL 3350 - Human Heredity
- Additional advanced elective courses may be counted with the approval of the medical anthropology minor advisor.


## 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 selected from

- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- ANTH 4300 - Migrants and Refugees
- ANTH 4400-Environmental Anthropology
- ANTH 4601 - Anthropology of Education
- ANTH 4701 - Topics in Sociocultural Anthropology (when taught as Anthropology of Business)


## Department of Biological Sciences

Main Departmental Office
Life Sciences, Room A210
Mailing address:
1155 Union Circle \#305220
Denton, TX 76203-5017
940-565-2011
Web site: www.biology.unt.edu
Undergraduate Advising Office
Life Sciences Building, Room A210
940-565-3627
Fax: 940-565-3821
Art Goven, 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 allied health 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 Arts and 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 Arts and Sciences section of this catalog.

## Majors

## 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.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

Major of 33 hours in biochemistry, of which 19 must be advanced. Required courses:

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430-Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422 - General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory (All courses above are to be completed with a C or better.)
- CHEM 2380-Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452-Quantitative Analysis Laboratory
- CHEM 3530 - Physical Chemistry for Life Science
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory
- BIOC 4570 - Biochemistry and Molecular Biology of the Gene and
- BIOC 4580-Molecular Biology and Biotechnology Laboratory


## Note

BIOC 4540/BIOC 4550/BIOC 4560 may be substituted for BIOC 3621/BIOC 3622.

## Other course requirements

- TECM 2700 - Technical Writing (replaces ENGL 1320 in university core)
- MATH 1710 - Calculus I (prerequisite MATH 1610 or MATH 1650, with a grade of C or better)
- 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


## Minor requirements

Minor of 20 hours in biology, including:

- 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 and
- BIOL 2042 - Microbiology Laboratory
(All courses above are to be completed with a C or better.)
- BIOL 3510-Cell Biology and
- BIOL 3520 - Cell Biology Laboratory
- plus an additional 8 hours of advanced biology courses with laboratories


## 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 Arts and Sciences.

## Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. A minimum 2.5 grade point average in all science and mathematics courses, a minimum 2.5 grade point average for upper-division courses in the sciences, 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 overall science/mathematics or advanced science grade point average drops below the minimum for two consecutive semesters will be removed from the program.

## Biochemistry, BSBC

The Bachelor of Science in Biochemistry provides hands-on training for a research or medical career in biochemistry.

## 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's degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Foreign language requirement options

Students may complete either of two options to satisfy the College of Arts and Sciences foreign language requirement:

## Option 1

Must attain intermediate II level (2050) in a foreign language or pass appropriate proficiency exam(s) as specified by the College of Arts and Sciences.

## Option 2

Complete two courses from the approved groups below (a minimum of 6 hours). A student who wishes to fulfill the foreign language requirement by Option 2 must first be counseled by an undergraduate advisor of the Department of Biological Sciences and must obtain written approval of Option 2 for inclusion in the student's degree plan. Students must choose one course from each group as follows for a total of 6 hours. All courses must be a minimum of 3 hours. Cooperative Education in Biological Sciences (BIOL 4920) is excluded:

## Group 1

- TECM 4180 - Advanced Technical Writing
or
- TECM 4700 - Writing in the Sciences


## Group 2

Select one course from the following:

- A biology course at the 3000 level or higher if it is not used to complete a biology minor (excludes special problems 4900-4910 courses and Honors Research Thesis 4940, 4950, 4951)
- A chemistry course at the 3000 level or higher if it is not used in the biochemistry major
- A computer science course for computer science majors that is above the CSCE 1020 level
- EDSE 4608 - Apprentice Teaching I in Mathematics, Science and Computer Science
- EDSE 4618 - Apprentice Teaching II in Mathematics, Science and Computer Science
- TECM 4190-Technical Editing
- TECM 4250-Writing Technical Procedures and Manuals
- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4400 - Introduction to Remote Sensing
- GEOG 4520 - Intermediate Geographic Information Systems
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4560 - Introduction to GIS Programming
- HNRS 3500 - Honors Thesis Proposal Development
- MATH 1680 - Elementary Probability and Statistics
- Any other math course above the level of MATH 1720
- PHIL 3250 - Philosophy of Science
- PSYC 4640 - Psychophysiology
- A physics course for physics majors at the 3000 level or higher


## Major requirements

A major of at least 39 hours in chemistry/biochemistry, of which 25 semester hours must be advanced, including:

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory (All courses above are to be completed with a C or better.)
- CHEM 2380 - Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- CHEM 3451-Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry and
- CHEM 3520 - Physical Chemistry
- BIOC 4540-Biochemistry I and
- BIOC 4550 - Biochemistry II and
- BIOC 4560 - Biochemistry Laboratory
- BIOC 4570-Biochemistry and Molecular Biology of the Gene and
- BIOC 4580 - Molecular Biology and Biotechnology Laboratory


## Other course requirements

- TECM 2700-Technical Writing (replaces ENGL 1320 in university core)
- MATH 1710-Calculus I (prerequisite MATH 1610 or MATH 1650, with a grade of C or better) and
- MATH 1720-Calculus II
- PHYS 1510-General Physics I with Calculus and
- PHYS 1530-General Physics with Calculus Laboratory I and
- 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 and
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics


## Minor requirements

A minor of 20 hours in biology, including:

- 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 and
- BIOL 2042 - Microbiology Laboratory (All courses above are to be completed with a C or better.)
- BIOL 3451 - Genetics and
- BIOL 3452 - Genetics Laboratory
- BIOL 3510 - Cell Biology and
- BIOL 3520-Cell Biology Laboratory
- Plus 4 advanced hours in biology with 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 Arts and Sciences.

## Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. A minimum 2.5 grade point average in all science and mathematics courses, a minimum 2.5 grade point average for upper-division courses in the sciences, 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 overall science/mathematics or advanced science 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.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

Complete the following with a grade of C or better:

- 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


## Two selections from

Complete two of the following with a grade of C or better:

- 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 2301 - Human Anatomy and Physiology I and
- BIOL 2311 - Human Anatomy and Physiology I Laboratory and
- BIOL 2302 - Human Anatomy and Physiology II and
- BIOL 2312 - Human Anatomy and Physiology II Laboratory


## Advanced biology requirements

- BIOL 3451 - Genetics and
- BIOL 3452 - Genetics Laboratory
- BIOL 3510-Cell Biology and
- BIOL 3520 - Cell Biology Laboratory


## One physiology course with laboratory chosen from

- BIOL 3800-Animal Physiology and
- BIOL 4510 - Animal Physiology Laboratory
or
- BIOL 4501 - Bacterial Diversity and Physiology and
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory or
- BIOL 4503 - Plant Physiology and
- BIOL 4504 - Plant Physiology Laboratory or
- BIOL 4505 - Comparative Animal Physiology and
- BIOL 4510 - Animal Physiology Laboratory


## Plus 7 additional advanced biology elective hours

(Each course used must be a minimum of 3 hours.)

## Courses not applicable to the biology elective requirements

The following courses may not be applied to the biology elective requirements for the BA.

- BIOL 3350 - Human Heredity
- BIOL 3360 - Heredity Lab
- BIOL 3500-Medical Terminology
- BIOL 4050 - Animal Ecology
- 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 4800 - Biological Sciences Seminar Series
- BIOL 4805 - Biological Sciences Capstone Seminar
- BIOL 4900 - Special Problems
- BIOL 4910 - Special Problems
- BIOL 4920-Cooperative Education in Biological Sciences
- BIOL 4940 - Honors Research in Biology
- BIOL 4950 - Honors Thesis in Biology
- BIOL 4951 - Honors College Capstone Thesis


## Capstone requirement

Students seeking a Bachelor of Arts with a major in biology must complete a capstone course chosen from the list given below. The chosen capstone course is in addition to the 7 advanced biology elective hours in the major, but may be applied to other degree requirements. Additional capstone course choices may be approved on an individual basis by a biology advisor. Approved capstone courses are:

- BIOL 4805 - Biological Sciences Capstone Seminar
- BIOL 4850 - Biology Laboratory Instruction
- BIOL 4950 - Honors Thesis in Biology
- BIOL 4951 - Honors College Capstone Thesis
- EDSE 4618 - Apprentice Teaching II in Mathematics, Science and Computer Science


## Other course requirements

- TECM 2700 - Technical Writing (replaces ENGL 1320 in university core)
- 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
- MATH 1710 - Calculus I (MATH 1610 or MATH 1650 prerequisite, with a grade of C or better) or
- MATH 1680 - Elementary Probability and Statistics or equivalent (with a grade of C or better)


## Chemistry requirements

Students must complete a minor in chemistry with a minimum of 20 hours, which must include the following courses:

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry
or
- CHEM 1422- General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210- Organic Chemistry Laboratory (All courses above are to be completed with a C or better.)
- CHEM 2380-Organic Chemistry or equivalent and
- CHEM 3220-Organic Chemistry Laboratory or equivalent


## Plus 4 advanced hours chosen from

- CHEM 3451- Quantitative Analysis and
- CHEM 3452- Quantitative Analysis Laboratory or
- CHEM 3530 - Physical Chemistry for Life Science
or
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory


## Note

Premedical and pre-dental students are advised to substitute BIOC 4540/BIOC 4550 for BIOC 3621/BIOC 3622.

## 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 Arts and Sciences.

## Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. A minimum 2.5 grade point average in all science and mathematics courses, a minimum 2.5 grade point average for upper-division courses in the sciences, 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 overall science/mathematics or advanced science grade point average drops below the minimum for two consecutive semesters will be removed from the program.

## Biology, BSBIO

The university's investment in 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

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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Foreign language requirement options

Students may complete either of two options to satisfy the College of Arts and Sciences foreign language requirement:

## Option 1

Must attain intermediate II level (2050) in a foreign language or pass appropriate proficiency exam(s) as specified by the College of Arts and Sciences.

## Option 2

Complete two courses from the approved groups listed below (a minimum of 6 hours). A student who wishes to fulfill the foreign language requirement by Option 2 must first be counseled by an undergraduate advisor of the Department of Biological Sciences and must obtain written approval of Option 2 for inclusion in the student's degree audit. Students must choose one course from each group listed below for a total of 6 hours. All courses must be a minimum of 3 hours. Special Problems (BIOL 4900 - BIOL 4910), Cooperative Education in Biological Sciences (BIOL 4920) and Honors Research/Thesis (BIOL 4940, BIOL 4950, BIOL 4951) are excluded.

## Group 1

- TECM 4180 - Advanced Technical Writing or
- TECM 4700 - Writing in the Sciences

Group 2

Select one course from the following:

- A biochemistry or chemistry course at the 3000 level or higher if it is not used to complete the major requirement for advanced chemistry
- A computer science course for computer science majors that is above the CSCE 1020 level
- EDSE 4608 - Apprentice Teaching I in Mathematics, Science and Computer Science
- EDSE 4618 - Apprentice Teaching II in Mathematics, Science and Computer Science
- TECM 4190-Technical Editing
- TECM 4250-Writing Technical Procedures and Manuals
- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4400 - Introduction to Remote Sensing
- GEOG 4520 - Intermediate Geographic Information Systems
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4560 - Introduction to GIS Programming
- HNRS 3500 - Honors Thesis Proposal Development
- MATH 1680 - Elementary Probability and Statistics or other math course above the level of MATH 1710
- PHIL 3250 - Philosophy of Science
- PSYC 4640 - Psychophysiology
- A physics course for physics majors at the 3000 level or higher

Note

All courses must be appropriate for majors within the department that offers them. Normal limitations for undergraduate enrollment in graduate classes will still apply.

## Major requirements

A major of 42 hours in the biological sciences, of which 28 must be advanced.

## Required courses

Complete the following with a grade of C or better:

- 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

Two selections from

Complete two of the following with a grade of C or better:

- 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


## Advanced biology requirements

- BIOL 3451-Genetics and
- BIOL 3452 - Genetics Laboratory
- BIOL 3510-Cell Biology and
- BIOL 3520 - Cell Biology Laboratory

One physiology course with laboratory chosen from

- BIOL 3800-Animal Physiology and
- BIOL 4510 - Animal Physiology Laboratory or
- BIOL 4501 - Bacterial Diversity and Physiology and
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory or
- BIOL 4503 - Plant Physiology and
- BIOL 4504 - Plant Physiology Laboratory or
- BIOL 4505 - Comparative Animal Physiology and
- BIOL 4510 - Animal Physiology Laboratory


## Plus 16 advanced hours

(Excluding BIOL 3350/BIOL 3360, BIOL 3500, and BIOL 4050) of which 2 courses must be with laboratory

By selecting upper-division biology courses from a subdiscipline, it is possible for the BS student to establish, unofficially, an area of study in general biology, microbiology, animal physiology/neuroscience, cell and molecular biology/genetics, or the plant sciences in consultation with the undergraduate advisor. The subdisciplines of general biology, microbiology, plant sciences, and neuroscience have been defined with the courses listed below. Please consult with a biology faculty advisor in Room A128 of the Life Sciences Complex for further information.

## Capstone Requirement

Students seeking a Bachelor of Science in Biology must complete a capstone course chosen from the list given below. The chosen capstone course may also be applied to other requirements in the Bachelor of Science in Biology degree. Additional capstone course choices may be approved on an individual basis by a biology advisor. Approved capstone courses are:

- BIOL 4805 - Biological Sciences Capstone Seminar
- BIOL 4850 - Biology Laboratory Instruction
- BIOL 4950 - Honors Thesis in Biology
- BIOL 4951 - Honors College Capstone Thesis
- EDSE 4618 - Apprentice Teaching II in Mathematics, Science and Computer Science


## Other course requirements

- TECM 2700 - Technical Writing (replaces ENGL 1320 in university core)
- 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
- MATH 1710 - Calculus I (MATH 1610 or MATH 1650 prerequisite, with a grade of C or better) or equivalent


## Chemistry requirements

Students must complete a minor in chemistry with a minimum of 20 hours, which must include the following courses:

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440-Laboratory Sequence for General Chemistry or
- CHEM 1422- General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210-Organic Chemistry Laboratory (All courses above are to be completed with a C or better.)
- CHEM 2380-Organic Chemistry
- CHEM 3220 - Organic Chemistry Laboratory or equivalent


## Plus 4 advanced hours chosen from

- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
or
- CHEM 3530-Physical Chemistry for Life Science or
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory

Note

Premedical and pre-dental students are advised to substitute BIOC 4540/BIOC 4550 for BIOC 3621/BIOC 3622.

## 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 Arts and Sciences.

## Other requirements

Only two attempts will be allowed for each biology and biochemistry course in the degree. A minimum 2.5 grade point average in all science and mathematics courses, a minimum 2.5 grade point average for upper-division courses in the sciences, 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 overall science/mathematics or advanced science grade point average drops below the minimum for two consecutive semesters will be removed from the program.

## 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 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the General University Requirements in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements, 42 hours

## Required courses, 29 hours

## Lower-level biology courses

## Biology for science majors

Students select one from each pair from the following:

- BIOL 1710 - Biology for Science Majors I
or
- BIOL 1711 - Honors Biology for Science Majors I
plus
- BIOL 1720 - Biology for Science Majors II
or
- BIOL 1722 - Honors Biology for Science Majors II
plus
- BIOL 1750 - Introductory Biology Research Laboratory I
or
- BIOL 1760 - Biology for Science Majors Laboratory
or
- BIOL 1761 - Honors Biology for Science Majors Laboratory
(All courses above are to be completed with a grade of $C$ or better prior to taking upper-level biology courses.)


## Additional lower-level biology courses

- BIOL 2140 - Principles of Ecology
- BIOL 2251 - Biodiversity and Conservation of Animals
(Both are to be completed with a C or better prior to taking upper-level biology courses.)


## Required upper-level biology courses

- BIOL 3451 - Genetics and
- BIOL 3452 - Genetics Laboratory
- BIOL 4051 - Community Ecology and
- BIOL 4052 - Community Ecology Laboratory
- BIOL 4260 - Principles of Evolution
- BIOL 4503 - Plant Physiology and
- BIOL 4504 - Plant Physiology Laboratory or
- BIOL 4505 - Comparative Animal Physiology and
- BIOL 4510 - Animal Physiology Laboratory


## Additional upper-level biology courses, 13 hours

Majors must select an additional 13 hours, including two courses with laboratory, from the following courses:

- 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 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 4070 - Insect Biology
- 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 4380 - Fundamentals of Aquatic Toxicology
- BIOL 4400 - Wetland Ecology and Management
- BIOL 4420 - Invertebrate Biology
- BIOL 4440 - Stream Ecology
- 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

## Chemistry, 16 hours

- CHEM 1410-General Chemistry for Science Majors
or
- CHEM 1412-General Chemistry for the Honors College or
- CHEM 1413 - Honors General Chemistry
- CHEM 1430-Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors
or
- CHEM 1422-General Chemistry for the Honors College
or
- CHEM 1423 - Honors General Chemistry
- CHEM 1440-Laboratory Sequence for General Chemistry
- CHEM 2370-Organic Chemistry
- CHEM 3210-Organic Chemistry Laboratory
(All above are to be completed with a C or better and prior to taking upper level biology courses.)
- CHEM 2380-Organic Chemistry
- CHEM 3220-Organic Chemistry Laboratory


## Physics, 8 hours

- 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


## Additional required courses

- MATH 1680 - Elementary Probability and Statistics or
- MATH 1710-Calculus I (A grade of C or better is required in prerequisite MATH courses.)
- GEOG 3500 - Introduction to Geographic Information Systems
- TECM 2700-Technical Writing
- ECON 4440 - Economics of Natural Resources and Environment
- PHIL 2500 - Introduction to Contemporary Environmental Issues


## Minor requirements

None.

## Electives

Hours required for electives may vary based on course selection and 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 Arts and Sciences.

## Other requirements

[^2]meet the minimum grade point averages given above. Students in the department whose overall science/mathematics or advanced science grade point average drops below the minimum for two consecutive semesters will be removed from the program.

## Medical Laboratory Sciences with a concentration in Cytotechnology, BSMLS (not accepting students)

This concentration is not accepting students.

Course work for the Bachelor of Science in Medical Laboratory Sciences with a concentration in cytotechnology provides a solid background in the sciences and teaches the skills needed to work as an allied health professional who studies cells and cellular anomalies.

The Department of Biological Sciences offers a concentration in cytotechnology as an option within the Bachelor of Science in Medical Laboratory Sciences (BSMLS). This concentration is available through affiliation with the following programs, which are approved by the Commission on Accreditation of Allied Health Education Programs (CAAHEP):

- The University of Vermont Medical Center School of Cytotechnology in Burlington, VT. Students entering this concentration will be prepared to meet the requirements to enter a school of cytotechnology but will not meet the requirements to enter a school of medical laboratory sciences unless additional course work is taken. Consult with a departmental advisor for clarification.

Upon graduation with this concentration, students are eligible to take national examinations given by the American Society for Clinical Pathology (ASCP). Upon passing the registry examination, the student is considered a certified cytotechnologist. The awarding of the degree is not contingent upon students' passing the national board examination.

To complete this concentration, students must complete all of the following 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's degree as specified in the "General University Requirements" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Cytotechnology concentration (minimum of 32 hours)

Satisfactory completion of a minimum of 12 months of professional training at an approved cytotechnology school as verified by an official transcript sent to the UNT cytotechnology program director. The transcript is evaluated by the director, who recommends to the dean of the College of Arts and Sciences 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.

## Biology course requirements

- 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 and
- BIOL 2042 - Microbiology Laboratory
- BIOL 3451 - Genetics and
- BIOL 3452 - Genetics Laboratory
- BIOL 3510 - Cell Biology and
- BIOL 3520 - Cell Biology Laboratory
- BIOL 3800 - Animal Physiology and
- BIOL 4510 - Animal Physiology Laboratory
- BIOL 4300 - Histology
- BIOL 3770 - Biotechnology


## Plus 4 hours from

- BIOL 3000 - Comparative Anatomy of Vertebrates
- BIOL 3381 - Medical Bacteriology and
- BIOL 3382 - Medical Bacteriology Laboratory
- BIOL 4201 - Immunology and
- BIOL 4202 - Immunology Laboratory


## Chemistry course requirements

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 3601 - Organic Chemistry and
- CHEM 3602 - Laboratory for Organic Chemistry


## Other course requirements

- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory
- TECM 2700-Technical Writing
- MATH 1680 - Elementary Probability and Statistics
- MGMT 3720-Organizational Behavior
- Completion of 12 months of clinical training (for a minimum of 32 credit hours) at any approved school of cytotechnology to complete the degree. (See Cytotechnology concentration, above.)


## 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 Arts and Sciences.

- A minimum grade of C in all science and mathematics courses. Only two attempts will be allowed for each biology and biochemistry course in the degree. A minimum 2.5 grade point average for upper-division (advanced) courses in the sciences, a minimum UNT 2.0 grade point average 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 UNT and overall grade point averages given above. Students in the department whose UNT or overall grade point averages drop below the minimum UNT and overall grade point averages given above for two consecutive semesters will be removed from the program.
- Cytotechnology students must submit to the program director a transcript evaluation request, including the name(s) of the cytotechnology school(s) where the student is applying. Students are also required to file with the program director the name of the accredited cytotechnology school to be attended.


## 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), in cooperation with the Commission on Accreditation of Allied Health Education Programs:

- Texas A\&M University - Corpus Christi: Joe Lewis, MD, Medical Director; Jean Sparks, PhD, MLS (ASC), Program Director
- Baylor Scott and White, Temple: Kathleen Jones, MD, Medical Director; Mary Ruth Beckham, MEd, MT (ASCP), Program Director
- Tarleton State University at All Saints Hospital, Fort Worth: Clifton Daniel, MD, Medical Director; Sally Lewis, MS, MT (ASCP), Program Director
- Houston Methodist Hospital, Houston: Christopher Leveque, MD, Medical Director; Tatia Feltman, MEd, MT (ASCP) SM, Program Director
- United Regional Medical Health Care System (School of Medical Technology), Wichita Falls: Stuart Smith, MD, Medical Director; Asma Javed, MS, MT (ASCP), Program Director
- Parkview School of Medical Laboratory Science, Pueblo, CO: Jenney Mead, MLS(ASCP) ${ }^{\mathrm{CM}}$, MBA, Program Director 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 Pathologists 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 42 must be advanced, and fulfillment of degree requirements for the Bachelor's degree as specified in the "General University Requirements" in the Academics section of this catalog and the College of Arts and Sciences requirements (excluding foreign language).

## Major 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 program director. The transcript is evaluated by the director who recommends to the dean of the College of Arts and Sciences 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.

## Biology course requirements

- 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 and
- BIOL 2042 - Microbiology Laboratory
- BIOL 3381 - Medical Bacteriology and
- BIOL 3382 - Medical Bacteriology Laboratory
- BIOL 3510 - Cell Biology and
- BIOL 3520 - Cell Biology Laboratory
- BIOL 3800 - Animal Physiology and
- BIOL 4510 - Animal Physiology Laboratory
- BIOL 4201 - Immunology and
- BIOL 4202 - Immunology Laboratory

Plus two courses, with laboratory, 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 or
- BIOL 3770 - Biotechnology


## Chemistry course requirements

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430-Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440-Laboratory Sequence for General Chemistry
- CHEM 3601 - Organic Chemistry and
- CHEM 3602 - Laboratory for Organic Chemistry
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory


## Other course requirements

- TECM 2700-Technical Writing (replaces ENGL 1320 in University Core Curriculum)
- MATH 1680 - Elementary Probability and Statistics
- MGMT 3720-Organizational Behavior
- Completion 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.


## 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 Arts and Sciences.

## Other requirements

- A minimum grade of $C$ in all science and mathematics courses. Only two attempts will be allowed for each biology and biochemistry course in the degree. A minimum 2.5 grade point average for upper-division courses in the sciences, a minimum 2.0 UNT grade point average 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 UNT and overall grade point averages given above. Students in the department whose UNT or overall grade point average drops below the minimum (given above) for two consecutive semesters will be removed from the program.
- Submission to the program director of a transcript evaluation request, including the name(s) of medical laboratory sciences school(s) where the student is applying.
- Filing, in the program director's office before leaving campus, the name of the accredited medical laboratory sciences school to be attended.


## Minors

## 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.

## 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 1760 - Biology for Science Majors Laboratory or
- BIOL 1761 - Honors Biology for Science Majors Laboratory
- 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
- 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 3500, BIOL 4080, 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.


## Secondary Teacher Certification

## Chemistry teacher certification (Biochemistry)

The College of Arts and 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.

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.

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412 - General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452- Quantitative Analysis Laboratory
- CHEM 3530 - Physical Chemistry for Life Science
- CHEM 4700-Research Methods for Secondary Science Instruction
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory
- BIOC 4570 - Biochemistry and Molecular Biology of the Gene and
- BIOC 4580 - Molecular Biology and Biotechnology Laboratory
- MATH 1710-Calculus I
- 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 Biochemistry

Upon completion of this program, students will be prepared to sit for the certification examinations in Chemistry.

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry
- CHEM 3520 - Physical Chemistry
- CHEM 4700-Research Methods for Secondary Science Instruction
- BIOC 4540 - Biochemistry I
- BIOC 4550 - Biochemistry II
- BIOC 4560 - Biochemistry Laboratory
- BIOC 4570 - Biochemistry and Molecular Biology of the Gene and
- BIOC 4580 - Molecular Biology and Biotechnology Laboratory
- MATH 1710-Calculus I
- MATH 1720-Calculus II
- 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 Wave Motion, Electricity, Magnetism and Optics


## Additional requirements

See major for additional course work and GPA requirements.

Students must also complete the required 18 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 is available on the web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

## Life Science teacher certification (Biology)

The College of Arts and 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.

## 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.

- 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 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 and
- BIOL 2042 - Microbiology Laboratory
- BIOL 3451-Genetics and
- BIOL 3452 - Genetics Laboratory
- BIOL 3510-Cell Biology and
- BIOL 3520-Cell Biology Laboratory
- BIOL 3800-Animal Physiology (recommended) and
- BIOL 4510 - Animal Physiology Laboratory
or
- BIOL 4501 - Bacterial Diversity and Physiology and
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory
or
- BIOL 4503 - Plant Physiology and
- BIOL 4504 - Plant Physiology Laboratory
or
- BIOL 4505 - Comparative Animal Physiology and
- 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
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412- General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370-Organic Chemistry and
- CHEM 3210-Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220-Organic Chemistry Laboratory
- MATH 1710 - Calculus I
- 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 Biology

Upon completion of this program, students will be prepared to sit for the certification examinations in Life Science.

- 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 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 and
- BIOL 2042 - Microbiology Laboratory
- BIOL 3451 - Genetics and
- BIOL 3452 - Genetics Laboratory
- BIOL 3510 - Cell Biology and
- BIOL 3520 - Cell Biology Laboratory
- BIOL 3800-Animal Physiology (recommended) and
- BIOL 4510 - Animal Physiology Laboratory or
- BIOL 4501 - Bacterial Diversity and Physiology and
- BIOL 4502 - Bacterial Diversity and Physiology Laboratory or
- BIOL 4503 - Plant Physiology and
- BIOL 4504 - Plant Physiology Laboratory or
- BIOL 4505 - Comparative Animal Physiology and
- 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
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory
- Two advanced biology electives of at least 3 credit hours
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430-Laboratory Sequence for General Chemistry or
- CHEM 1412- General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- MATH 1710-Calculus I
- 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


## Additional information

See major for additional course work and GPA requirements.

Students must also complete the required 18 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 is available on the web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

## Physical Science teacher certification (Biochemistry)

The College of Arts and 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.

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.

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412 - General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory
- CHEM 2380-Organic Chemistry and
- CHEM 3220-Organic Chemistry Laboratory
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3530-Physical Chemistry for Life Science
- CHEM 4700-Research Methods for Secondary Science Instruction
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory
- BIOC 4570 - Biochemistry and Molecular Biology of the Gene and
- BIOC 4580 - Molecular Biology and Biotechnology Laboratory
- MATH 1710-Calculus I
- 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
- PHYS 3010 - Modern Physics and
- 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.

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210-Organic Chemistry Laboratory
- CHEM 2380-Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- CHEM 3451-Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry
- CHEM 3520 - Physical Chemistry
- CHEM 4700-Research Methods for Secondary Science Instruction
- BIOC 4540 - Biochemistry I
- BIOC 4550-Biochemistry II
- BIOC 4560 - Biochemistry Laboratory
- BIOC 4570 - Biochemistry and Molecular Biology of the Gene and
- BIOC 4580 - Molecular Biology and Biotechnology Laboratory
- MATH 1710-Calculus I
- MATH 1720-Calculus II
- 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 Wave Motion, Electricity, Magnetism and Optics
- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics


## Additional information

See major for additional course work and GPA requirements.

Students must also complete the required 18 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 is available on the web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

## Undergraduate Academic Certificates

## Forensic Science certificate

Advances in technology have created a need for students in basic sciences to apply the tools of technology to a wide variety of criminal investigations.

The forensic science program offers a certificate in forensic science for biology, biochemistry and chemistry students. The certificate is designed to enable students in degree programs in biological sciences and chemistry to begin careers in forensic laboratories.

## Requirements

Students must complete 19 hours of course work, including:

- CJUS 4360-Criminal Investigation
- BIOL 3331 - Biomedical Criminalistics
- BIOL 4240 - Forensic Microscopy
- BIOL 4590 - Forensic Molecular Biology Laboratory
- CHEM 4351 - Forensic Chemistry
- CHEM 4631 - Instrumental Analysis and
- CHEM 4632 - Instrumental Analysis Laboratory
- Completion of the Forensic Science Aptitude Test offered by the American Board of Criminalistics


## Additional information

Contact the forensic science program office or visit the web site for more information (www.forensic.unt.edu).

The Certificate in Forensic Science in conjunction with a Bachelor of Science in Biochemistry, Biology and Chemistry is accredited by the Forensic Science Education Programs Accreditation Commission [410 North 21st Street, Colorado Springs, CO 80904; 719-636-1100].

## Department of Chemistry

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940-565-2713
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Michael G. Richmond, 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 Arts and Sciences section of this catalog.

## Programs of study

All programs are listed below. The department offers a chemistry minor, a chemical technicians minor and a series of courses designed to prepare students to sit for the 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 Affairs Committee.

## 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 Arts and Sciences section of this catalog.

## Forensic Science certificate

Students who major in chemistry may wish to complete the Forensic Science certificate.

## Majors

## 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 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

## Option 1 required courses

Minimum of 31 hours, including:

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- CHEM 3230-Physical Chemistry Laboratory Sequence
- CHEM 3240 - Physical Chemistry Laboratory Sequence
- CHEM 3451-Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry
- CHEM 3520 - Physical Chemistry
- Plus 3 additional hours of chemistry at the 4000 level (except CHEM 4940) or
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory

This option is recommended for those planning to pursue advanced studies in chemistry.

## Option 2 required courses

Minimum of 31 hours, including:

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440-Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210-Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220-Organic Chemistry Laboratory
- CHEM 3230 - Physical Chemistry Laboratory Sequence
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452- Quantitative Analysis Laboratory
- CHEM 3510-Physical Chemistry
- 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 31 hours, including:

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210-Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220-Organic Chemistry Laboratory
- 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
- MATH 1720 - Calculus II
- 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 Wave Motion, Electricity, Magnetism and Optics (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 (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Arts and Sciences.

## 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, 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 $\mathbf{3 8}$ 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 42 must be advanced, and fulfillment of degree requirements for the Bachelor's degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the Arts and Sciences degree requirements (excluding foreign language and natural and life sciences). The laboratory science requirement is satisfied only by physical sciences.

## Major requirements

## Minimum of 42 hours, including:

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- CHEM 3451-Quantitative Analysis and
- CHEM 3452-Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry and
- CHEM 3230 - Physical Chemistry Laboratory Sequence
- CHEM 3520 - Physical Chemistry and
- CHEM 3240 - Physical Chemistry Laboratory Sequence
- 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
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics


## 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 (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Arts and Sciences.

## Other requirements

GPA of 2.5 on all advanced courses attempted in science and engineering (biochemistry, biology, chemistry, computer science, engineering, mathematics, physics).

## Minors

## Chemical Technicians minor

Completion of this minor satisfies course requirements for certification as a "Certified Chemical Technician" by the American Institute of Chemists.

## Required courses

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210-Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220-Organic Chemistry Laboratory or
- CHEM 3601 - Organic Chemistry and
- CHEM 3602 - Laboratory for Organic Chemistry
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452- Quantitative Analysis Laboratory or
- CHEM 3610-Quantitative Techniques
- CHEM 4631 - Instrumental Analysis and
- CHEM 4632 - Instrumental Analysis Laboratory


## Chemistry minor

## Recommended minor

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430-Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370-Organic Chemistry and
- CHEM 3210-Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220-Organic Chemistry Laboratory 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 - Elementary Biochemistry and
- BIOC 3622 - Elementary 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 Arts and 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.

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 for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452-Quantitative Analysis Laboratory
- CHEM 3530 - Physical Chemistry for Life Science or
- CHEM 3510 - Physical Chemistry and
- CHEM 3230 - Physical Chemistry Laboratory Sequence
- CHEM 4700 - Research Methods for Secondary Science Instruction
- CHEM 4900-Special Problems (Research Experience)
- 3 hours of approved chemistry
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary 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 for Science Majors and
- CHEM 1430-Laboratory Sequence for General Chemistry or
- CHEM 1412- General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413-Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440-Laboratory Sequence for General Chemistry or
- CHEM 1422- General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370-Organic Chemistry and
- CHEM 3210-Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220-Organic Chemistry Laboratory
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry and
- CHEM 3230 - Physical Chemistry Laboratory Sequence
- CHEM 3520 - Physical Chemistry and
- CHEM 3240 - Physical Chemistry Laboratory Sequence
- 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 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics


## Additional requirements

See major for additional course work and GPA requirements.
Students must also complete the required 18 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 is available on the web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

The College of Arts and 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.

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.

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- CHEM 3451 - Quantitative Analysis and
- CHEM 3452-Quantitative Analysis Laboratory
- CHEM 3530 - Physical Chemistry for Life Science or
- CHEM 3510 - Physical Chemistry and
- CHEM 3230 - Physical Chemistry Laboratory Sequence
- CHEM 3520-Physical Chemistry
- CHEM 4700-Research Methods for Secondary Science Instruction
- CHEM 4900-Special Problems (Research Experience)
- 3 hours of approved chemistry
- BIOC 3621 - Elementary Biochemistry and
- BIOC 3622 - Elementary Biochemistry Laboratory
- 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 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- 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.

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CHEM 2370 - Organic Chemistry and
- CHEM 3210 - Organic Chemistry Laboratory
- CHEM 2380 - Organic Chemistry and
- CHEM 3220 - Organic Chemistry Laboratory
- CHEM 3451-Quantitative Analysis and
- CHEM 3452 - Quantitative Analysis Laboratory
- CHEM 3510 - Physical Chemistry and
- CHEM 3230 - Physical Chemistry Laboratory Sequence
- CHEM 3520 - Physical Chemistry and
- CHEM 3240 - Physical Chemistry Laboratory Sequence
- 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
- BIOC 4540-Biochemistry I
- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics


## Additional requirements

See major for additional course work and GPA requirements.
Students must also complete the required 18 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 is available on the web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

# Department of Communication Studies 

Main Departmental Office<br>General Academic Building, Room 309A<br>Mailing Address:<br>1155 Union Circle \#305268<br>Denton, TX 76203-5017<br>940-565-2588<br>Fax: 940-565-3630<br>Web site: www.comm.unt.edu

## Brian Richardson, 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 graduates pursue careers in education, consulting, organizational administration and management, training and development, and political communication. 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, legal, political, cultural, intercultural and international contexts. Students encounter topics such as gender and diversity issues, 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 nationalcaliber 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 .

## 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, University of North Texas, 1155 Union Circle \#305268, Denton, TX 76203-5017.

## 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. Jay Allison, Department of Communication Studies, University of North Texas, 1155 Union Circle \#305268, Denton, TX 76203-5017.

## Majors

## Communication Studies, BA

A Bachelor of Arts with a major in communication studies equips you with the effective communication, critical thinking and problemsolving 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 - College Writing I
- ENGL 1320 - College 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
- COMM 2020 - Interpersonal Communication
- COMM 2060 - Performance of Literature
- COMM 2140 - Advocating in Public


## GPA requirement

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 Academics section of this catalog and the College of Arts and Sciences requirements. 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 36 semester credit hours:

## Initial requirements, 15 core hours

- COMM 1010 - Introduction to Communication
- COMM 2020 - Interpersonal Communication
- COMM 2060 - Performance of Literature
- COMM 2140 - Advocating in Public
- 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, they may select a course from the following among the upper-division courses:

- COMM 3120-Nonverbal Communication
- COMM 3260-Storytelling, Narrative and Everyday Life
- COMM 3320-Communication and Conflict Management
- COMM 3720-Small Group Communication
- COMM 3760 - Performance Methods
- COMM 3840 - Argumentation and Debate
- COMM 3920-Organizational Communication
(Students who do not complete COMM 3010 with a grade of $C$ or better are prohibited from enrolling in other upperdivision communication courses until they have completed COMM 3010 successfully.)


## 9 hours distributed

One course taken from each of the following groups:

## Group A

- COMM 3420-Communication and New Technology
- COMM 3620 - Intercultural Communication
- COMM 3720 - Small Group Communication
- COMM 3920- Organizational Communication
- COMM 4420-Communication and Relational Development

Group B

- COMM 3340-Methods of Rhetorical Criticism
- COMM 4140-Gender and Communication
- COMM 4240-Rhetoric and Popular Culture
- COMM 4340 - Rhetoric and Politics
- COMM 4640-Latin@ Rhetorics


## Group C

- COMM 3260-Storytelling, Narrative and Everyday Life
- COMM 3760 - Performance Methods
- COMM 3865 - Adaptation and Staging
- COMM 4360 - Performance Composition


## 3 hours of theory from

- COMM 4020-Communication Theory
- COMM 4040 - Rhetorical Theory
- COMM 4060 - Performance Theory
- COMM 4540-Communication Theories of Sexuality


## 3 hours capstone experience

- COMM 4510-Communication Capstone


## 6 additional advanced hours in communications studies (COMM) courses

Chosen in consultation with an advisor.

## Other course requirements

None.

## Minor requirements

Majors are required to complete a 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 Arts and 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 elect 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.

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.

## 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.

Departmental advisors are available for consultation on the minor in communication studies.

## Secondary Teacher Certification

## Communication Studies (Speech) teacher certification

The College of Arts and 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


#### Abstract

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 - College Writing I
- ENGL 1320 - College 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
- COMM 2020 - Interpersonal Communication
- COMM 2060 - Performance of Literature
- COMM 2140 - Advocating in Public


## GPA requirement

Have a UNT grade point average of 2.5 or higher.

## Major requirements, 36 hours

## Initial requirements, 18 core hours

- COMM 1010-Introduction to Communication
- COMM 2020 - Interpersonal Communication
- COMM 2040 - Public Speaking
- COMM 2060 - Performance of Literature
- COMM 2140 - Advocating in Public
- 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, they may select a course from among the following upper-division courses:

- COMM 3120-Nonverbal Communication
- COMM 3260-Storytelling, Narrative and Everyday Life
- COMM 3320-Communication and Conflict Management
- COMM 3720-Small Group Communication
- COMM 3840 - Argumentation and Debate
- COMM 3920-Organizational Communication
(Students who do not complete COMM 3010 with a grade of $C$ or better are prohibited from enrolling in other upperdivision communication courses until they have completed COMM 3010 successfully.)


## 9 hours distributed

One course taken from each group:

## Group A

- COMM 3420-Communication and New Technology
- COMM 3620 - Intercultural Communication
- COMM 3720 - Small Group Communication
- COMM 3920-Organizational Communication
- COMM 4420-Communication and Relational Development


## Group B

- COMM 3340-Methods of Rhetorical Criticism
- COMM 4140-Gender and Communication
- COMM 4240 - Rhetoric and Popular Culture
- COMM 4340 - Rhetoric and Politics
- COMM 4640-Latin@ Rhetorics


## Group C

- COMM 3260 - Storytelling, Narrative and Everyday Life
- COMM 3760 - Performance Methods
- COMM 3865 - Adaptation and Staging
- COMM 4360 - Performance Composition


## 3 hours of theory, chosen from

- COMM 4020-Communication Theory
- COMM 4040 - Rhetorical Theory
- COMM 4060 - Performance Theory
- COMM 4540-Communication Theories of Sexuality


## 3 hours capstone experience

- COMM 4510- Communication Capstone


## 3 additional advanced hours in communication studies (COMM) courses

Chosen in consultation with an advisor.

## Additional requirements

See major for additional course work and GPA requirements.

Majors are required to complete COMM core courses before registering in upper-division courses. Students who register for a course for which they have not completed prerequisite(s) with a grade of C or better are subject to being dropped from the course.

Because of the high demand for many COMM courses, students who miss the first class day without prior consent 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.

Students must also complete the required 21 hours in upper-level education courses (EDSE 3800, EDSE 3830, EDSE 4060, EDSE 4070, EDSE 4108, EDSE 4118, EDSE 4840) and 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), www.tea.state.tx.us.

## Undergraduate Academic Certificates

Digital Media Studies certificate (COMM)

## Certificate requirements

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 3820-Social Media Perspectives
- MRTS 3360-Social Media Strategies
- TECM 1500-New Media for Your College Career or
- TECM 3500 - Digital Media for Professional Communication


## Electives, 6 hours

Selected from the following courses:

- COMM 3420-Communication and New Technology
- COMM 4320-Communications and Virtual Gaming
- JOUR 4270 - Strategic Social Media
- MRTS 4475 - Digital Media and Society
- TECM 3200-Information Design for Electronic Media
- Internship option (TECM 4920, MRTS 4480 or COMM 4800) with departmental approval
- Other courses approved by certificate advisor


## Department of Dance and Theatre

Main Departmental Office<br>Radio, TV, Film and Performing Arts Building, Room 242<br>Mailing address:<br>1155 Union Circle \#310607<br>Denton, TX 76203-5017<br>940-565-2211<br>Fax: 940-565-4453<br>E-mail: dat@unt.edu<br>Web site: www.danceandtheatre.unt.edu<br>Dance Office<br>Dance and Theatre Building, Room 103<br>940-565-3432<br>Fax: 940-369-7458<br>\section*{Lorenzo Garcia, Chair}<br>\section*{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 major in dance should consult an advisor in the RTFP building, Room 242, about selection of courses, a degree audit, 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 programs of study

The department offers undergraduate programs in the following area:

- Bachelor of Arts with a major in dance
- Bachelor of Fine Arts with a major in dance


## Theatre program of study

The department offers an undergraduate program in the following area:

- Bachelor of Arts with a major in theatre

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 4year 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.

All scholarships are presented to students majoring in the Department of Dance and Theatre during any term/semester or summer session. Each year on announced dates, interested students must audition for the performance awards or submit design portfolios for technical awards available for the summer sessions and the following academic year.

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 Alpha Psi Omega, Chi Tau Epsilon, DANCE UNiT and University Players, undergraduate organizations that serve the dance and theatre department and other university programs.

## Majors

## Dance, BA

A Bachelor of Arts with a major in dance helps you become a dancer who values self expression, intellectual investigation, creativity and discipline by exposing you to a broad range of dance techniques. With additional course work, the program prepares you to become a certified teacher.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major 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 "General University Requirements" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

A minimum of 48 hours of DANC courses, including the following:

## Dance technique, 12 hours

Modern dance technique, 6 hours

- DANC 3400 - Modern Dance Technique, Level III or
- DANC 4400 - Modern Dance Technique, Level IV

Ballet technique, 6 hours

- DANC 3410-Ballet Technique, Level III or
- DANC 4410 - Ballet Technique, Level IV

Creative studies, 6 hours

- DANC 1250-Choreography I
- DANC 2250 - Choreography II


## Dance theory, 18 hours

## (3 hours each)

- DANC 1100 - Stress Reduction Through Movement (may be used to satisfy the Discovery requirement of the University Core Curriculum)
- DANC 2060 - Music for Dancers
- DANC 2800 - Survey of Dance (may be used to satisfy the Visual and Performing Arts requirement of the University Core Curriculum)
- DANC 3050 - Dance Kinesiology
- DANC 3800 - History of Concert Dance in the U.S.: 1900-Present
- DANC 4630 - Laban Studies


## Production and design, 1 hour

- DANC 2095 - Stage Production I
or
- DANC 4095 - Stage Production II


## Professional preparation, 11 hours

- DANC 4046 - Dance and Technology
- DANC 4070 - Dance Pedagogy: The Teacher Prepares
- DANC 4650 - Senior Project
- DANC 1050 - Dance Performance
- DANC 4050 - Dance Performance and Production Lab


## Note

Each term/semester a student performs in public dance productions sponsored or approved by the department, the student must enroll in one of the following:

- DANC 1050 - Dance Performance
- DANC 3080 - Principles and Techniques of Dance Performance
- DANC 4050 - Dance Performance and Production Lab


## 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 Arts and Sciences.

## Other requirements

- Entrance auditions are required for admission to be a major in the dance program. Further information is available at www.danceandtheatre.unt.edu concerning time, date and place. DANC 1100, DANC 1200 and DANC 2800 are open to all students in the university without restriction and satisfy University Core Curriculum requirements. All other DANC courses are open to nondance majors with instructor approval and space availability if prerequisites are met.
- Continuing dance majors enrolled in DANC 1400, DANC 1410, DANC 2400, DANC 2410, DANC 3400, DANC 3410, DANC 4400 and DANC 4410 must be enrolled for two consecutive terms/semesters at the same level within an academic year. Dance majors are expected to take modern technique each semester and encouraged to take ballet technique each semester with a minimum of one daily technique class. Transfer students entering the spring term/semester will be evaluated individually. Non-dance majors may be accepted into technique courses through individual evaluation, instructor approval and space availability. Advancement to higher level technique classes is through teacher recommendation.
- Transfer course work to be substituted for required dance courses must be approved by a student's academic advisor during the degree audit process.
- Students majoring in dance must maintain a minimum cumulative GPA of 2.5, make a B or better in dance technique and at least a C in all other courses comprising the major.
- 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 dance 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.


## Requirements for Dance certification

The College of Arts and 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 dance.

All students seeking secondary teaching certification in dance will major in the Bachelor of Arts with a major in dance and fulfill the following additional requirements.

## Specialty courses, 5 hours

- DANC 2500 - Jazz Dance Technique, Level II
- DANC 2710 - Tap Dance Technique, Level II
- DANC 3617 - African Music and Movement


## Plus 2 additional hours from

- DANC 2500-Jazz Dance Technique, Level II
- DANC 2710 - Tap Dance Technique, Level II
- DANC 3617 - African Music and Movement


## Recommended courses

- DANC 3080 - Principles and Techniques of Dance Performance
- DANC 4630 - Laban Studies


## Education courses, 21 hours

- EDSE 3800-Professional Issues in Teaching
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 4118 - Student Teaching in the Secondary School
- EDSE 4840 - Instructional Strategies and Classroom Management


## Additional requirements

Students must complete the 21 hours of education courses (above) and 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 are available on the web site of the State Board for Educator Certification (SBEC) at www.tea.state.tx.us.

Upon completion of this program, students will be prepared to sit for the certification examinations in dance.

## Dance, BFA

A Bachelor of Fine Arts with a major in dance exposes you to a broad range of dance techniques that prepare you for Master of Fine Arts programs. With additional course work, the program can also help you to become a certified teacher.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Fine Arts with a major 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 Fine Arts degree as specified in the "University Core Curriculum" in the Academics section of this catalog.

## Major requirements

A BFA degree with a major in dance requires a minimum of 76 hours in dance, including:

## Dance technique courses, 29 hours

A minimum of 29 hours in dance technique consisting of:

## Modern dance technique, 12 hours

- DANC 3400 - Modern Dance Technique, Level III (6 hours)
- DANC 4400 - Modern Dance Technique, Level IV (6 hours)

Ballet technique, 12 hours

- DANC 3410 - Ballet Technique, Level III or
- DANC 4410 - Ballet Technique, Level IV


## 3 hours in

- DANC 2500 - Jazz Dance Technique, Level II
- DANC 2710 - Tap Dance Technique, Level II
- DANC 3617 - African Music and Movement

Plus 2 additional hours from

- DANC 2500 - Jazz Dance Technique, Level II
- DANC 2710 - Tap Dance Technique, Level II
- DANC 3617 - African Music and Movement


## Creative studies, 9 hours

- DANC 1250-Choreography I
- DANC 2250 - Choreography II
- DANC 3250 - Choreography III


## Dance theory, 21 hours

## Required courses, 9 hours

- DANC 1100-Stress Reduction Through Movement (may be used to satisfy a portion of the Component Area Option requirement of the University Core Curriculum)
- DANC 1200 - Appreciation of Dance as a Contemporary Art Form (may be used to satisfy a portion of the Component Area Option requirement of the University Core Curriculum)
- DANC 2800 - Survey of Dance (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

Plus 12 hours from

- DANC 2060 - Music for Dancers
- DANC 3050 - Dance Kinesiology
- DANC 3800 - History of Concert Dance in the U.S.: 1900-Present
- DANC 4630 - Laban Studies
- DANC 4700-Composer/Choreographer Collaboration


## Professional preparation, 17 hours

2 hours in

- DANC 1050 - Dance Performance

3 hours each in

- DANC 4046 - Dance and Technology
- DANC 3080 - Principles and Techniques of Dance Performance
- DANC 4070 - Dance Pedagogy: The Teacher Prepares
- DANC 4650 - Senior Project


## 3 hours in

- DANC 4050 - Dance Performance and Production Lab


## 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 Arts and Sciences.

## Other requirements

a. Entrance auditions and applications are required for admission to be a major in the dance program. Students are expected to enter the program on level III technique in Modern and Ballet as assessed by the departmental auditions. Further information is available at www.danceandtheatre.unt.edu concerning time, date and place. DANC 1100, DANC 1200 and DANC 2800 are open to all students in the university without restriction and satisfy University Core requirements.
b. Continuing dance majors enrolled in DANC 1400, DANC 1410, DANC 2400, DANC 2410, DANC 3400, DANC 3410, DANC 4400 and DANC 4410 must be enrolled for two consecutive semesters at the same level within an academic year. Students are expected to enter the program on level III technique in Modern and Ballet as assessed by the departmental auditions. Transfer students entering the spring semester will be evaluated individually. Advancement to higher level technique classes is through teacher recommendation.
c. Transfer course work to be substituted for required dance courses must be approved by a student's academic advisor during the degree audit process.
d. Students majoring in dance must maintain a minimum cumulative grade point average of 2.5 , make a B or better in dance technique and at least a C in all other courses comprising the major.
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 dance course. If a student has not completed the prerequisites for a particular course, the student is subject to administrative drop without notice. Prerequisites are listed with individual course descriptions.
At the end of each term/semester, students will be reviewed by the dance faculty to determine eligibility to continue in the BFA program.

## 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.

## 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 4350 - Senior Seminar


## 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 4130 - Lighting III: Design
- THEA 4143-Costume III: Design
- THEA 4146 - Stagecraft III: Design
- THEA 4190-Sound Production and Design for the Theatre
- 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 Arts and Sciences.

## Other requirements

a. Students majoring in theatre must maintain a cumulative grade point average of 2.5. In addition, students must make a C or better in all theatre courses comprising the major.
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 Performance, 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 performance.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements, 45 hours

A minimum of 45 semester hours, including a theatre core of 24 credit hours

Theatre core, 24 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
- THEA 4350 - Senior Seminar


## Concentration in performance, 21 hours

## 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 courses from

Select three courses from the following:

- 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)

Critical perspectives, 3 hours

3 hours chosen from the following

- THEA 4370-Contemporary Chicana/Chicano Theatre
- THEA 4380-Gay/Lesbian Plays and Performance After 1960s
- THEA 4390 - Theatre and Social Change


## Areas of interest, 12 hours (advanced)

12 advanced hours chosen from the following courses in consultation with the department advisor:

- THEA 3100 - Directing I
- THEA 3140 - Acting: Styles and Periods
- THEA 3351 - Theatre Movement II
- THEA 3400 - Theatre for Young Audiences
- THEA 4000 - Musical Theatre Acting
- THEA 4100 - Directing II
- THEA 4140 - Acting: Shakespeare
- THEA 4240 - Theatre in the Classroom
- THEA 4310 - Acting for the Camera
- THEA 4351 - Physical Theatre
- THEA 4460 - Play and Film Scriptwriting
- THEA 4500 - Theatre Topics
- THEA 4600 - Rehearsal and Performance for the Stage
- THEA 4910 - Special Problems
- THEA 4920 - Theatre Practicum


## 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, THEA 4290 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 Arts and Sciences.

## Other requirements

a. Students majoring in theatre must maintain a cumulative grade point average of 2.5. In addition, students must make a C or better in all theatre courses comprising the major
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, 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

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 - W orld Theatre to 1700
- THEA 3040 - W orld Theatre After 1700
- THEA 4350-Senior Seminar


## 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, 24 hours

To complete the BA with a major in theatre, students may choose 24 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, THEA 4290 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 Arts and Sciences.

## Other requirements

a. Students majoring in theatre must maintain a cumulative grade point average of 2.5. In addition, students must make a C or better in all theatre courses comprising the major.
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.

## Minors

## Dance minor

A minor dance consists of 18 semester hours.

The dance minor seeks to provide, within 18 credit hours, an opportunity for students to explore the field of dance via breadth and some depth as tailored to their individual needs. Students will gain and apply artistic and intellectual knowledge in the field of dance that is relevant and applicable to each dance minor's interdisciplinary career goal or personal enrichment aim.

## First 9 hours

## Dance technique studies, 3 hours

Assigned to student via audition.

- DANC 1400 - Modern Dance Technique, Level I
- DANC 2400 - Modern Dance Technique, Level II
- DANC 3400 - Modern Dance Technique, Level III
- DANC 4400 - Modern Dance Technique, Level IV


## Dance historical/theoretical studies, 3 hours

Selected from:

- DANC 1100-Stress Reduction Through Movement
- DANC 1200 - Appreciation of Dance as a Contemporary Art Form
- DANC 2800 - Survey of Dance


## Dance creative studies, 3 hours

- DANC 1250 - Choreography I


## Remaining course work

Upon completion of the first three courses, the student may then, in consultation with the department advisor, take a horizontal or vertical path toward completing the additional 9 credit hours of the dance minor.

This structure gives the dance minor student flexibility and offers the student an opportunity to carve out his or her individual path once each of the three areas of dance studies has been sampled.

## Horizontal path, 9 hours

The student may choose to take a broad-based horizontal path by enrolling in the next level of dance technique, dance historical/theoretical studies and dance creative studies.

## Vertical path, 9 hours

The student may choose to take an intensive vertical path by enrolling in advanced courses or a variety of courses (i.e., more styles and idioms) along just one of the three tracks of study (dance technique studies, dance historical/theoretical studies or dance creative studies). This path allows for immersion in one focused area of study in the field of dance.

## Other requirements

Students must formally apply for the dance minor via an application sheet, audition for initial placement in dance technique courses, and meet with the department advisor prior to enrolling in courses.

## Theatre minor

A minor in theatre consists of 21 semester hours.

## Requirements

## 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 12 advanced hours in theatre

## Secondary Teacher Certification

## Dance teacher certification

## Requirements for Dance certification

The College of Arts and 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 dance.

All students seeking secondary teaching certification in dance will major in the Bachelor of Arts with a major in dance and fulfill the following additional requirements.

## Specialty courses, 5 hours

- DANC 2500-Jazz Dance Technique, Level II
- DANC 2710 - Tap Dance Technique, Level II
- DANC 3617 - African Music and Movement


## Plus 2 additional hours from

- DANC 2500-Jazz Dance Technique, Level II
- DANC 2710 - Tap Dance Technique, Level II
- DANC 3617 - African Music and Movement


## Recommended courses

- DANC 3080 - Principles and Techniques of Dance Performance
- DANC 4630 - Laban Studies


## Education courses, 21 hours

- EDSE 3800-Professional Issues in Teaching
- EDSE 3830 - Teaching/Learning Process and Evaluation
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 4118 - Student Teaching in the Secondary School
- EDSE 4840 - Instructional Strategies and Classroom Management


## Additional requirements

Students must complete the 21 hours of education courses (above) and 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 are available on the web site of the State Board for Educator Certification (SBEC) at www.tea.state.tx.us.

Upon completion of this program, students will be prepared to sit for the certification examinations in dance.

## All Level Teacher Certification

## Theatre teacher certification

The College of Arts and 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 - W orld 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
- THEA 4350-Senior Seminar


## 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 major for additional course work and GPA requirements.

Students must also complete the required 21 hours in upper-level education courses (EDSE 3800, EDSE 3830, EDSE 4060, EDSE 4070, EDSE 4108, EDSE 4118, EDSE 4840) and 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), www.tea.state.tx.us.

## Undergraduate Academic Certificates

## Theatre Technologies certificate

The certificate program seeks to provide, within 15 credit hours, an opportunity for students to explore the field of theatre technologies in the international industry. Students will gain practical knowledge that is relevant and applicable to each student's career goal.

Interested students must apply and be admitted into the theatre technologies certificate program by the design/tech faculty of the Department of Dance and Theatre. Upon admittance, students must meet with the department advisor before enrolling in courses.

## Required courses, 12 hours

- THEA 1030 - Lighting and Sound I
- THEA 1046 - Stagecraft I
- THEA 3130 - Lighting II
- THEA 4920 - Theatre Practicum


## Plus 3 hours selected from

- THEA 3146 - Stagecraft II
- THEA 4190 - Sound Production and Design for the Theatre
- THEA 4920 - Theatre Practicum (in addition to THEA 4920 listed above)


# Department of Economics 

Main Departmental Office<br>Hickory Hall, Room 254<br>Mailing address:<br>1155 Union Circle \#311457<br>Denton, TX 76203-5017<br>940-565-2573<br>Fax: 940-565-4426<br>Web site: economics.unt.edu<br>Advising Offices<br>Undergraduate, Hickory Hall, Rooms 283B and 283D<br>Graduate, Hickory Hall, Rooms 220E and 220J

## David J. Molina, 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.

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.

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 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 "University Core Curriculum Requirements" as stated in the Academics section of this catalog, and general course and curriculum requirements of the 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 Hickory Hall, Room 254. The deadline for applying is the end of February. Scholarship winners are announced in the spring.

## Abe Melton Scholarship

The department annually awards this scholarship based on merit to an economics major. The scholarship is named in honor of Professor Abe Melton, former UNT economics faculty member and former department chair.

To be eligible, a student must be an economics major of junior standing ( 60 credit hours) and have a minimum 3.5 grade point average.

## Tom Preston Economics Scholarship

This scholarship is named in honor of Tom Preston, former dean, College of Arts and Sciences, and is awarded to outstanding undergraduate and graduate economics majors.

Students who have declared economics as their major are eligible, including entering freshmen and entering graduate students.
To be eligible, an undergraduate student must have a minimum GPA of 3.0 and a minimum SAT of 1100 recentered (or a minimum ACT of 24 ). A graduate student must have a 3.0 GPA on all college work and must meet current admissions standards for the GRE or GMAT.

The amount and number of awards depend on the availability of funding.

## Department of Economics Scholarships for Academic Excellence

Scholarships are awarded to outstanding undergraduate and graduate economics majors.
Students who have declared economics as their major are eligible, including entering freshmen and entering graduate students.
To be eligible, an undergraduate student must have a minimum GPA of 3.0. A graduate student must have a 3.0 GPA on all college work and must meet current admissions standards for the GRE or GMAT.

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 3.0 average 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, named in honor of Professor Lewis Abernathy, retired UNT economics faculty member and distinguished department chairman, is awarded to full time undergraduate or graduate majors in economics.

To be eligible, an undergraduate student must have a minimum GPA of 3.0. A graduate student must have a 3.0 GPA on all college work and must meet current economics admissions standards for the GRE or GMAT.

The amount and number of awards depend on the availability of funding.

## 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.

## Center for International Economic Studies and Research

## David J. Molina, Co-Director

## Michael A. McPherson, Co-Director

The Center for International Economic Studies and Research has three primary objectives.

The first is to promote research through the acquisition of external funding for projects focusing on the socioeconomic problems of Asia, Africa, Central and Eastern Europe, and Latin America.

The center also coordinates undergraduate and graduate programs within existing departments for students interested in problems of these regions.

Beyond the campus, the center develops relationships with other institutions, both public and private, for the exchange of scholars and students, as well as joint research and conferences.

## Center for Environmental Economic Studies and Research

## Michael L. Nieswiadomy, Director

The Center for Environmental Economic Studies and Research promotes the use of economic tools to analyze environmental issues. The center also coordinates undergraduate major programs within existing departments for students interested in environmental topics. The center cooperates with other universities, educational institutions and government agencies to promote research and seminars on environmental economics for the public.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

Majors must complete at least 30 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 15 additional upper-division hours

Plus 15 additional upper-division hours above the 3000 level, including at least 9 hours from the following:

- ECON 4140 - Managerial Economics
- ECON 4150 - Public Economics
- ECON 4180- The Economics of Health Care
- ECON 4290 - Labor Economics
- ECON 4420 - Open Economy Macroeconomics
- ECON 4450 - Strategic Behavior Across Market Structures
- ECON 4460 - Industrial Organization and Public Policy
- ECON 4500 - The Economics of Sports
- ECON 4550 - Law and Economics
- ECON 4650 - Urban Economics
- 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.

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. A student must earn at least a B in ECON 1100 before taking ECON 3550 and at least a B in ECON 1110 before taking ECON 3560. In all other cases, a student must earn a grade of C or higher in any prerequisite course before taking the next course in a sequence.

## Other course requirements

## Math requirement

- MATH 1190 - Business Calculus
or
- MATH 1710-Calculus I


## Statistics requirement

- ECON 4630 - Research Methods for Economists
or
- MATH 3680 - Applied Statistics (either 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 Arts and Sciences.

## Economics, BSECO


#### Abstract

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

## 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 the College of Arts and Sciences requirements.

## Major requirements

Majors must complete at least 30 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 15 additional upper-division hours

15 additional upper-division hours above the 3000 level, including at least 9 hours from the following:

- ECON 4140 - Managerial Economics
- ECON 4150 - Public Economics
- ECON 4180 - The Economics of Health Care
- ECON 4290 - Labor Economics
- ECON 4420 - Open Economy Macroeconomics
- ECON 4450 - Strategic Behavior Across Market Structures
- ECON 4460 - Industrial Organization and Public Policy
- ECON 4500 - The Economics of Sports
- ECON 4510 - History of Economic Thought
- ECON 4550 - Law and Economics
- ECON 4650 - Urban Economics
- 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.

A student must receive at least a B in ECON 1100 and ECON 1110 and at least a C in all economics courses above the 3000 level. In addition, a student must receive a B in ECON 1100 before taking ECON 3550 and at least a B in ECON 1110 before taking ECON 3560. In all other cases, a student must earn at least a C in any prerequisite course before taking the next course in a sequence.

## Math requirement

- MATH 1710-Calculus I
- MATH 1720-Calculus II both with a grade of $C$ or better


## Statistics requirement

- ECON 4630-Research Methods for Economists
or
- MATH 3680-Applied Statistics (either with a grade of C or better)


## Foreign language requirement options

Students may complete either of two options to satisfy the College of Arts and 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
- MATH 4650 - Statistics

Note

MATH 3680 may be taken to fulfill the statistics requirement and will also count toward the additional 6 hours of mathematics. Students who take MATH 3680 cannot receive credit for both MATH 3680 and ECON 4630.

## 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 Arts and Sciences.

## Minors

## Economics minor

## Required courses

- ECON 1100 - Principles of Microeconomics (with a grade of A or B)
- ECON 1110 - Principles of Macroeconomics (with a grade of A or B)
- ECON 3550 - Intermediate Micro-Theory (with a grade of C or better)


## Plus 9 hours

9 additional hours of upper-division courses (3000- or 4000-level) with a grade of C or better.

## Undergraduate Academic Certificates

## Economic Geography certificate

The economics and geography departments offer an interdisciplinary certificate in analysis of geographic data. Eighteen (18) hours of course work are required, including four core courses and two electives (one economics and one geography). All courses must be completed with a grade of $C$ or better.

## Required core courses

- ECON 3550 - Intermediate Micro-Theory
- ECON 4650 - Urban Economics
- GEOG 4060 - Applied GIS: MapInfo Professional®
- GEOG 4220 - Applied Retail Geography


## Economics elective

Choose one of the following:

- ECON 4440 - Economics of Natural Resources and Environment
- ECON 4460 - Industrial Organization and Public Policy
- ECON 4870 - Introduction to Econometrics

Choose one of the following:

- GEOG 3010 - Economic Geography
- GEOG 4210 - Urban Geography


## Department of English

Main Departmental Office<br>Auditorium Building, Room 112<br>Mailing address:<br>1155 Union Circle \#311307<br>Denton, TX 76203-5017<br>940-565-2050<br>Fax: 940-565-4355<br>Web site: www.engl.unt.edu<br>Undergraduate Advising Office<br>Auditorium Building, Room 114

## Robert Upchurch, Chair

Faculty
The Department of English provides students with opportunities to develop skills in written and oral communication; to gain knowledge of American and British literature, world literature, and major literary forms; and to gain experience in creative writing. All courses are open to nonmajors except ENGL 3000 and ENGL 4700.

The study of English language and literature not only prepares students for teaching on all levels from elementary school to college but also equips them to assume positions of responsibility in business, industry and government as managers and supervisors, personnel specialists, consultants, analysts and editors, among other important leadership roles. English is widely recognized as a foundation discipline for many professions, such as law, journalism, theology, psychology and international diplomacy.

To be an English major or minor is to experience the great literature and thought of our culture and to be prepared to enter the professional world with personal enrichment and insights into the workings of human nature.

## 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 "General University Requirements" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

Total of 39 semester hours of credit, 15 of which are:

- ENGL 1310 - College Writing I
- ENGL 1320 - College Writing II
- ENGL 2210 - Survey of World Literatures from Antiquity to 1700 or
- ENGL 2211 - Survey of World Literatures from Antiquity to 1700
- ENGL 2220 - Survey of World Literatures from 1700 to the Present or
- ENGL 2221 - Survey of World Literatures from 1700 to the Present
- ENGL 3000 - Introduction to Literary Analysis and Interpretation Skills Note: ENGL 3000 should be taken in the first 18 hours of English course work.


## Creative Writing concentration, 24 hours

## No fewer than three 4000-level courses must be included in the 24 hours.

## One course chosen from

- ENGL 3430 - British Literature to 1780
- ENGL 3830 - American Literature to 1870


## One course chosen from

- ENGL 3440 - British Anglophone Literature 1780 to the Present
- ENGL 3840 - American Literature 1870 to the Present


## Two 4000-level courses in literature

## Four courses chosen from

(either three intermediate and one advanced or two intermediate and two advanced)

- ENGL 3140 - Intermediate Creative Writing: Fiction
- ENGL 3150 - Intermediate Creative Writing: Poetry
- ENGL 3160 - Intermediate Creative Writing: Non-Fiction
- ENGL 4100 - Advanced Fiction Writing
- ENGL 4110 - Advanced Poetry Writing
- ENGL 4120 - Advanced Creative Writing: Non-Fiction


## 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 Arts and 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.

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 "General University Requirements" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

Total of 39 semester hours of credit, 15 of which are:

- ENGL 1310 - College Writing I
- ENGL 1320 - College Writing II
- ENGL 2210 - Survey of World Literatures from Antiquity to 1700 or
- ENGL 2211 - Survey of World Literatures from Antiquity to 1700
- ENGL 2220 - Survey of World Literatures from 1700 to the Present or
- ENGL 2221 - Survey of World Literatures from 1700 to the Present
- ENGL 3000 - Introduction to Literary Analysis and Interpretation Skills

Note: ENGL 3000 should be taken in the first 18 hours of English course work.

## Language Arts concentration, 24 hours

## Also satisfies teacher certification.

No fewer than three 4000-level courses must be included in the 24 hours.

- ENGL 3110-Academic Writing in the Humanities
- ENGL 4195 - Advanced Grammar and Usage
- ENGL 4430 - Shakespeare
- ENGL 4700 - Methods of Teaching Language Arts in the Secondary Grades
- LING 3060 - Principles of Language Study


## One course chosen from

- ENGL 3450-Short Story
- ENGL 3920 - Survey of Ethnic Literatures


## One course chosen from

- ENGL 3430 - British Literature to 1780
- ENGL 3830 - American Literature to 1870


## One course chosen from

- ENGL 3440 - British Anglophone Literature 1780 to the Present
- ENGL 3840 - American Literature 1870 to the Present


## Additional courses required for teacher certification

- COMM 1010-Introduction to Communication
- EDRE 4840 - Linguistically Diverse Learners
- EDRE 4870-Cross-Curricular (Content Area) Literacy Materials and Resources
- JOUR 1210 - Mass Communication and Society
- JOUR 2000 - Principles of Advertising and Public Relations


## 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 Arts and 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 "General University Requirements" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

Total of 39 semester hours of credit, 15 of which are:

- ENGL 1310 - College Writing I
- ENGL 1320-College Writing II
- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
or
- ENGL 2211 - Survey of World Literatures from Antiquity to 1700
- ENGL 2220 - Survey of World Literatures from 1700 to the Present or
- ENGL 2221 - Survey of World Literatures from 1700 to the Present
- ENGL 3000 - Introduction to Literary Analysis and Interpretation Skills

Note: ENGL 3000 should be taken in the first 18 hours of English course work.

## Literature concentration, 24 hours

No fewer than three 4000-level courses must be included in the 24 hours.

## One course chosen from

- ENGL 3430 - British Literature to 1780
- ENGL 3830 - American Literature to 1870


## One course chosen from

- ENGL 3440 - British Anglophone Literature 1780 to the Present
- ENGL 3840 - American Literature 1870 to the Present


## One course chosen from

- ENGL 4410-Chaucer
- ENGL 4430 - Shakespeare
- ENGL 4440 - Milton
- ENGL 4450 - Special Studies in a Single or Dual Author(s)


## One course chosen from

- ENGL 3200 - Rhetorical History and Historiography
- ENGL 3210 - Studies in Writing
- ENGL 4150 - Literary Criticism
- ENGL 4185 - Advanced Academic Writing
- ENGL 4200 - Studies in Modern Rhetoric
- ENGL 4210 - Advanced Studies in Writing


## One course each in four of the five historical periods

Medieval, Renaissance, 18th Century, 19th Century and 20th/21st Century (four total). See lists below.

## 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 Arts and 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.

## Historical period courses

## Medieval literature

- ENGL 3431 - Introduction to Early Medieval Literature
- ENGL 3432 - Introduction to Late Medieval Literature
- ENGL 3433 - Medieval Women Writers
- ENGL 4410-Chaucer
- ENGL 4431 - Studies in Medieval Literature


## Designated sections of

- ENGL 3910 - Special Studies in Literature
- ENGL 3911 - Topics in British Literature
- ENGL 3913 - Topics in World Literature
- ENGL 3924 - Women's Literature
- ENGL 4450 - Special Studies in a Single or Dual Author(s)
- ENGL 4470 - British Drama
- ENGL 4800-Special Seminar in Literature or Language
- ENGL 4850 - Literature in Context


## Renaissance literature

- ENGL 3434 - British Renaissance Drama
- ENGL 3435 - British Renaissance Poetry
- ENGL 4430-Shakespeare
- ENGL 4432 - Studies in Renaissance Literature
- ENGL 4440 - Milton


## Designated sections of

- ENGL 3910-Special Studies in Literature
- ENGL 3911 - Topics in British Literature
- ENGL 3913 - Topics in World Literature
- ENGL 3924 - Women's Literature
- ENGL 4290 - World Drama
- ENGL 4420 - Poetry
- ENGL 4450 - Special Studies in a Single or Dual Author(s)
- ENGL 4470 - British Drama
- ENGL 4800-Special Seminar in Literature or Language
- ENGL 4850 - Literature in Context


## 18th century literature

- ENGL 3436 - Introduction to Eighteenth-Century British Literature
- ENGL 3831 - Introduction to the Literature of the Colonial Americas
- ENGL 4433 - Studies in Restoration and 18th Century British Literature
- ENGL 4831 - Studies in the Literature of the Eighteenth-Century Americas


## Designated sections of

- ENGL 3910-Special Studies in Literature
- ENGL 3911 - Topics in British Literature
- ENGL 3912 - Topics in American Literature
- ENGL 3913 - Topics in World Literature
- ENGL 3921 - African American Literature
- ENGL 3922-Chicano Literature
- ENGL 3924 - Women's Literature
- ENGL 4290 - World Drama
- ENGL 4400 - American Fiction
- ENGL 4420 - Poetry
- ENGL 4450 - Special Studies in a Single or Dual Author(s)
- ENGL 4470 - British Drama
- ENGL 4500 - British Fiction
- ENGL 4600-Continental European Fiction
- ENGL 4800 - Special Seminar in Literature or Language
- ENGL 4850 - Literature in Context


## 19th century literature

- ENGL 3441 - Introduction to Romantic Literature
- ENGL 3442 - Introduction to Victorian Literature
- ENGL 3832 - Nineteenth-Century American Poetry
- ENGL 3833 - The American Renaissance
- ENGL 3845 - Nineteenth-Century Literature of the U.S.-American West
- ENGL 3847 - American Realism
- ENGL 3921 - African American Literature
- ENGL 3922 - Chicano Literature
- ENGL 4434 - Studies in Romantic Literature
- ENGL 4435 - Studies in Victorian Literature
- ENGL 4832 - Studies in 19th-Century American Literature


## Designated sections of

- ENGL 3850-The Literature of Texas and the Southwest
- ENGL 3910 - Special Studies in Literature
- ENGL 3911 - Topics in British Literature
- ENGL 3912 - Topics in American Literature
- ENGL 3913 - Topics in World Literature
- ENGL 3924 - Women's Literature
- ENGL 4290 - World Drama
- ENGL 4400 - American Fiction
- ENGL 4420 - Poetry
- ENGL 4450 - Special Studies in a Single or Dual Author(s)
- ENGL 4470 - British Drama
- ENGL 4500 - British Fiction
- ENGL 4600 - Continental European Fiction
- ENGL 4800 - Special Seminar in Literature or Language
- ENGL 4850 - Literature in Context


## 20th and 21st century literature

- ENGL 3450 - Short Story
- ENGL 3843 - Twentieth- and Twenty-first-Century American Poetry
- ENGL 3844 - Contemporary Native American Literature
- ENGL 3846 - Mexican American Non-Fiction and Criticism
- ENGL 3920 - Survey of Ethnic Literatures
- ENGL 3921 - African American Literature
- ENGL 3922 - Chicano Literature
- ENGL 3923 - American Jewish Literature
- ENGL 4300 - Modern Drama
- ENGL 4480 - American Drama
- ENGL 4841 - Studies in Modern Irish Literature
- ENGL 4842 - Studies in British Modernism
- ENGL 4844 - Studies in American Modernism
- ENGL 4845 - Studies in Contemporary American Literature


## Designated sections of

- ENGL 3850-The Literature of Texas and the Southwest
- ENGL 3910 - Special Studies in Literature
- ENGL 3911 - Topics in British Literature
- ENGL 3912 - Topics in American Literature
- ENGL 3913 - Topics in World Literature
- ENGL 3920 - Survey of Ethnic Literatures
- ENGL 3924 - Women's Literature
- ENGL 4290 - World Drama
- ENGL 4400 - American Fiction
- ENGL 4420 - Poetry
- ENGL 4450 - Special Studies in a Single or Dual Author(s)
- ENGL 4470 - British Drama
- ENGL 4500 - British Fiction
- ENGL 4600 - Continental European Fiction
- ENGL 4800-Special Seminar in Literature or Language
- ENGL 4850 - Literature in Context


## 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 "General University Requirements" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

Total of 39 semester hours of credit, 15 of which are:

- ENGL 1310 - College Writing I
- ENGL 1320 - College Writing II
- ENGL 2210 - Survey of World Literatures from Antiquity to 1700 or
- ENGL 2211 - Survey of World Literatures from Antiquity to 1700
- ENGL 2220 - Survey of World Literatures from 1700 to the Present or
- ENGL 2221 - Survey of World Literatures from 1700 to the Present
- ENGL 3000 - Introduction to Literary Analysis and Interpretation Skills

Note: ENGL 3000 should be taken in the first 18 hours of English course work.

## Writing and Rhetoric concentration, 24 hours

No fewer than three 4000-level courses must be included in the 24 hours.

- ENGL 3110 - Academic Writing in the Humanities or
- One 3000-level course in literature or creative writing
- ENGL 3200 - Rhetorical History and Historiography
- ENGL 3210 - Studies in Writing
- ENGL 4150 - Literary Criticism or
- One 4000-level course in literature or creative writing
- ENGL 4200 - Studies in Modern Rhetoric
- ENGL 4210 - Advanced Studies in Writing
- ENGL 4230 - Special Topics in Rhetoric and Writing Studies
- One 4000-level course in literature or creative writing


## 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 Arts and 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.

## 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 Arts and 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.

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 4118 - Student Teaching in the Secondary School
- EDSE 4840 - Instructional Strategies and Classroom Management


## Additional requirements

Students must 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), www.tea.state.tx.us.

## Undergraduate Academic Certificates

## 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 English department in the College of Arts and 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

- AEAH 4804-Medieval Art
- AEAH 4805-Topics in Medieval Art
- AEAH 4806-Topics in Renaissance Art
- MUMH 3500 - Music History and Literature to 1750


## English

- ENGL 3430 - British Literature to 1780
- ENGL 3431 - Introduction to Early Medieval Literature
- ENGL 3432 - Introduction to Late Medieval Literature
- ENGL 3433 - Medieval Women Writers
- ENGL 3434 - British Renaissance Drama
- ENGL 3435 - British Renaissance Poetry
- 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
- HIST 4380 - The European Witch Hunts


## Philosophy and religion studies

- PHIL 2070-Great Religions
- PHIL 2100 - Introduction to Judaism
- PHIL 3120-Social and Political Philosophy
- PHIL 3310-Ancient Philosophy
- PHIL 3320-Medieval Philosophy
- PHIL 3525-Rabbinic Judaism
- PHIL 3540-Judaism and Philosophy


## Other requirements

Students must attend and/or participate in five events or activities on campus or in the D/FW community related to medieval and Renaissance studies, such as art exhibitions, music performances, or lectures and symposia sponsored by UNT's Medieval and Renaissance Colloquium. Students must include documentation of participating in these activities along with a summary report.

## 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

Main Departmental Office
Environmental Education, Science and Technology Building, Room 210
Mailing address:
1155 Union Circle \#305279
Denton, TX 76203-5017
940-565-2091
Fax: 940-369-7550
E-mail: geog@unt.edu
Web site: geography.unt.edu
Paul Hudak, 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 planning, transportation planning, parks and recreation planning, housing and community development, land and water resources management, environmental consulting and regulatory work, land surveying and cartography, archaeology and meteorology. Completion of the department's programs also prepares students for graduate course work in geography, archaeology and environmental science.

The Department of Geography offers courses for students majoring in geography or other fields. Students in the colleges of arts and sciences, business, education, and public affairs and community service will find that geography provides excellent support for their majors. Students majoring in any field may minor in geography, geology or archaeology (all offered through this department); complete courses to fill core requirements; obtain the department's certificate in geographic information systems, ethnobiology, or public health and GIS; or take courses for general interest.

Geography courses are divided into two subfields: human geography and earth science. 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.

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

## Geography, BA


#### Abstract

A Bachelor of Arts with a major in geography gives you the skills to solve complex environmental problems associated with population growth, urban sprawl, climate change, natural disasters and public health. 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 Arts 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 Arts degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements, 36 hours

A minimum grade of C is required in all major courses to graduate with a major in the department.

- 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

One techniques course; one course from topics Group A; three courses from topics Group B; and three electives from any techniques/topics group(s).

GEOG 4900 and GEOG 4920 can be applied to the techniques group, topics Group A or topics Group B.

## Techniques

- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4050 - Cartography and Graphics
- GEOG 4060 - Applied GIS: MapInfo Professional®
- GEOG 4150 - Epidemiological Research Methods in Spatial Perspective
- GEOG 4170 - Mapping and Field Methods
- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 4400 - Introduction to Remote Sensing
- GEOG 4520 - Intermediate Geographic Information Systems
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4560 - Introduction to GIS Programming
- GEOG 4570-Special Topics in GIS
- GEOG 4580-GIS in Health
- GEOG 4590 - Advanced GIS Programming

Group A: Earth science

- GEOG 3420 - Applied Biogeography
- GEOG 4030 - British Isles Field School (6 hours; counts as one course in Group A and one course in Group B)
- GEOG 4070-China Field School (6 hours; counts as two courses in Group A)
- GEOG 4240 - Meteorology
- GEOG 4250 - Climatology
- GEOG 4350-Geomorphology
- GEOG 4750 - Surface Water Hydrology
- GEOG 4875 - Earth Science Topics
- GEOL 3000-Geology of Texas
- GEOL 3020 - Historical Geology
- GEOL 4630 - Soils Geomorphology
- GEOL 4710 - Ecosystems: Structure, Function and Services
- GEOL 4850 - Introduction to Groundwater Hydrology


## Group B: Human geography

- GEOG 3010 - Economic Geography
- GEOG 3100 - United States and Canada: Economies, Cities and Sustainability
- GEOG 3750-Geography of Contemporary Sub-Saharan Africa
- GEOG 3770 - Latin America: Geography and Globalization
- GEOG 3780-Geography of Mexico
- GEOG 4030 - British Isles Field School (6 hours; counts as one course in Group A and one course in Group B)
- GEOG 4040 - Ghana Field School (6 hours; counts as two courses in Group B)
- GEOG 4120 - Medical Geography
- GEOG 4210 - Urban Geography
- GEOG 4220 - Applied Retail Geography
- GEOG 4410 - Location-Allocation Modeling
- GEOG 4420 - Critical Resource Geography: Population, Nature, Food and Energy
- GEOG 4885 - Human Geography Topics


## Other course requirements

- MATH 1680 - Elementary Probability and Statistics 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 Arts and Sciences.

## Other requirements

## Geography, BS

A Bachelor of Science with a major in geography gives you the skills to solve complex environmental problems associated with population growth, urban sprawl, climate change, natural disasters and public health. 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 Academics section of this catalog and the College of Arts and 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.

- 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

One techniques course; three courses from topics Groups A and C; one course from topics Group B; and three electives from any techniques/topics group(s).

GEOG 4900 and GEOG 4920 can be applied to the techniques group, topics Group A, topics Group B or topics Groups C.

## Techniques

- GEOG 3500-Introduction to Geographic Information Systems
- GEOG 4050 - Cartography and Graphics
- GEOG 4060 - Applied GIS: MapInfo Professional®
- GEOG 4150 - Epidemiological Research Methods in Spatial Perspective
- GEOG 4170 - Mapping and Field Methods
- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 4400 - Introduction to Remote Sensing
- GEOG 4520 - Intermediate Geographic Information Systems
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4560 - Introduction to GIS Programming
- GEOG 4570 - Special Topics in GIS
- GEOG 4580-GIS in Health
- GEOG 4590 - Advanced GIS Programming


## Group A: Earth science

- GEOG 3420 - Applied Biogeography
- GEOG 4030 - British Isles Field School (6 hours; counts as one course in Group A and one course in Group B)
- GEOG 4070 - China Field School (6 hours; counts as two courses in Group A)
- GEOG 4240 - Meteorology
- GEOG 4250 - Climatology
- GEOG 4350-Geomorphology
- GEOG 4750 - Surface Water Hydrology
- GEOG 4875 - Earth Science Topics
- GEOL 3000-Geology of Texas
- GEOL 3020 - Historical Geology
- GEOL 4630 - Soils Geomorphology
- GEOL 4710 - Ecosystems: Structure, Function and Services
- GEOL 4850 - Introduction to Groundwater Hydrology


## Group B: Human geography

- GEOG 3010 - Economic Geography
- GEOG 3100 - United States and Canada: Economies, Cities and Sustainability
- GEOG 3750-Geography of Contemporary Sub-Saharan Africa
- GEOG 3770 - Latin America: Geography and Globalization
- GEOG 3780-Geography of Mexico
- GEOG 4030 - British Isles Field School (6 hours; counts as one course in Group A and one course in Group B)
- GEOG 4040-Ghana Field School (6 hours; counts as two courses in Group B)
- GEOG 4120 - Medical Geography
- GEOG 4210 - Urban Geography
- GEOG 4220 - Applied Retail Geography
- GEOG 4410 - Location-Allocation Modeling
- GEOG 4420 - Critical Resource Geography: Population, Nature, Food and Energy
- GEOG 4885 - Human Geography Topics


## Group C: Archaeology

- ARCH 3650-Origins of Civilization
- ARCH 4620 - Topics in Archaeology (may be repeated as topics vary)
- ARCH 4810 - Archaeological Field School (6 hours; counts as two courses in Group C)


## Other course requirements

## Mathematics

- MATH 1680 - Elementary Probability and Statistics (or equivalent)


## Foreign language requirement options

Completion of one of the following course groups (two courses in total), to substitute for the foreign language requirement of the Arts and Sciences degree requirements.

## Group 1, Computer programming and information systems

Any two of the following:

- CSCE 1020 - Program Development
- BCIS 3610 - Basic Information Systems
- GEOG 4560 - Introduction to GIS Programming


## Group 2, Mathematics

Two courses (excluding MATH 1010, MATH 1100, MATH 1350 and MATH 1351), each at least 3 hours, in addition to the college requirement for meeting the Arts and Sciences degree requirements.

## Group 3, Physical and natural/life science

Two advanced level courses, each at least 3 hours, in physics, chemistry or biology, subject to approval by the geography undergraduate advisor. Group 3 courses may be from different departments (for example, one in physics and one in chemistry).

## 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 Arts and Sciences.

## Area of concentration

Students who wish to concentrate in earth science should select three courses from Group A and two courses from Group B; students who wish to concentrate in human geography should select two courses from Group A and three courses from Group B; students who wish to concentrate in archaeology should select three courses from Group C and two courses from Group A and/or Group B.

## Minors

## Archaeology minor

## A minor in archaeology requires 18 hours, including

- ANTH 1010 - Introduction to Anthropology
- ARCH 2800 - Archaeological Science


## A total of 12 hours selected from

- ARCH 3650-Origins of Civilization
- ARCH 4620 - Topics in Archaeology (may be repeated for credit as topics vary)
- ARCH 4810 - Archaeological Field School


## 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 2170-Culture, Environment and Society or
- GEOG 1200-Global Societies
- GEOG 1710 - Earth Science
- 12 advanced hours


## Geology minor

Geography majors may minor in geology, but none of the courses taken to satisfy the minor can also be applied to the major.

## Requirements

A minor in geology requires 18-19 hours in geology and earth science, including:

- GEOL 1610 - Introductory Physical Geology
- GEOL 3000-Geology of Texas
- GEOL 3020 - Historical Geology
- GEOG 2180-Geosystems, Environment and Society

Two additional courses from

- GEOG 4350-Geomorphology
- GEOG 4750 - Surface Water Hydrology
- GEOL 4630 - Soils Geomorphology
- GEOL 4710 - Ecosystems: Structure, Function and Services
- GEOL 4850 - Introduction to Groundwater Hydrology


## Undergraduate Academic Certificates

## Ethnobiology certificate

A certificate in ethnobiology consists of:

## Required courses, 6 hours

Select two courses from the following:

- ANTH 4701 - Topics in Sociocultural Anthropology (when taught as "Ethnoecology")
- ARCH 4620 - Topics in Archaeology (when taught as "Ethnobiology")
- GEOG 2170-Culture, Environment and Society


## Plus three courses selected from

- ANTH 4400 - Environmental Anthropology
- ANTH 4701 - Topics in Sociocultural Anthropology (when taught as "Culture and Climate Change," "Eastern Religion and the Environment," or "Anthropology of Food and Agriculture")
- ARCH 4620 - Topics in Archaeology (when taught as "Zooarchaeology")
- BIOL 3160 - Conservation Biology
- GEOG 3420 - Applied Biogeography
- GEOG 4420 - Critical Resource Geography: Population, Nature, Food and Energy
- GEOG 4885 - Human Geography Topics
- PHIL 4700 - Environmental Ethics
- BIOL 4053 - Introduction to Subantarctic Biocultural Conservation or
- PHIL 4053 - Introduction to Subantarctic Biocultural Conservation
- or other courses approved by certificate advisor


## 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

A six-course sequence fulfills the requirements for the certificate in geographic information systems (GIS):

- GEOG 3500-Introduction to Geographic Information Systems
- GEOG 4520 - Intermediate Geographic Information Systems
- GEOG 4550 - Advanced Geographic Information Systems
- GEOG 4560 - Introduction to GIS Programming
- GEOG 4570 - Special Topics in GIS
- GEOG 4590 - Advanced GIS Programming


## Public Health and GIS certificate

## Required courses, 15 hours

A grade of B or better is required in all courses applied to the certificate.

- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 4120 - Medical Geography
- GEOG 4150 - Epidemiological Research Methods in Spatial Perspective
- GEOG 4580-GIS in Health
- GEOG 4960-Geography Institute


## Department of History

Main Departmental Office
Wooten Hall, Room 225

Mailing address:
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Denton, TX 76203-5017
940-565-2288
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## Richard B. McCaslin, Chair

## Faculty

History encompasses all aspects of past human endeavor; 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, business people, 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 the social science major or for elective credits. History is an interest 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: the Howard H. Schultz Scholarship and Watt Family Scholarship in Jewish Studies, the Harry and Ruth Kamman Scholarship, the Gus Seligmann History Scholarship, the Ledbetter Family Scholarship, the CBS Mechanical Inc. History Scholarship, the Nation's Heritage Scholarship, the Benjamin Lyon Chapter DAR Scholarship and the KingsburyThomason 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 15. For information and application forms, contact the department chair, associate chair or administrative assistant.

## Majors

## History, BA

Students pursuing a Bachelor of Arts with a major in history are supported by the History Help Center and the Kingsbury-Thomason Departmental Library, which can assist you with preparing for exams and writing papers. There are also opportunities for hands-on research with the Military History Center and the Texas State Historical Association.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in history.

## Hours required and general/college requirements

 specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Arts and 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, 18 hours

18 semester hours of advanced work (3000-4000 level), with at least one class in each Group (A, B and C):
Each student will choose a focus for his or her advanced course work by taking at least four courses in one of the three groups: Group A (U.S. history), Group B (European/Western history), or Group C (non-Western history). Students must take at least one course from each of the other two groups outside of their focus. Students must finish a history course with a grade of C or better for it to count toward the history major.

## Group A: Advanced United States history

- HIST 3150-Historical and Cultural Development of the Mexican-American Community
- HIST 3650 - Representative American Leaders, Colonial Period to 1865
- HIST 3660 - Representative American Leaders Since 1865
- HIST 3710 - Diplomatic History of the United States to 1900
- HIST 3720 - Diplomatic History of the United States from 1900 to 1945
- HIST 4070 - World War II
- HIST 4071 - Korea, Vietnam and the American Military Experience
- HIST 4150-Mexican Immigration and the Chicano Community
- HIST 4155-Mexican American Autobiography
- HIST 4160 - Chicano Political History: 19th and 20th Century
- HIST 4200 - The Spanish Frontier in North America
- HIST 4210 - Southern Plains Indian History
- HIST 4261 - Topics in United States History
- HIST 4280 - French Frontier in North America
- HIST 4282 - Settler Colonialism and Empire
- HIST 4400 - Intellectual, Cultural and Social History of the United States to 1865
- HIST 4410 - Intellectual, Social and Cultural History of the United States Since 1865
- HIST 4420 - United States Constitutional Development, 1783-Present
- HIST 4430 - United States Political Parties, 1783-Present
- HIST 4435 - American Jewish Experience
- HIST 4440 - African-American History and Culture to 1865
- HIST 4450 - African-American History and Culture Since 1865
- HIST 4451 - African-American History During Segregation Era
- HIST 4455 - History of Black Women in America
- HIST 4461 - Gender, Race, Class and Policy since World War II
- HIST 4465 - Women in the United States to 1900
- HIST 4470 - Women in the United States Since 1900
- HIST 4475 - Jewish Women in Modern America
- HIST 4480-Colonial America
- HIST 4490 - The American Revolution, 1763-1789
- HIST 4495 - United States Food History
- HIST 4630 - U.S. Navy, 1775-Present: Sails
- HIST 4640 - Early United States Military History to 1815
- HIST 4700 - Texas
- HIST 4780 - Indian Policy in United States History
- HIST 4790 - Diplomatic History of the United States Since 1945
- HIST 4800 - The Relations Between the United States and Latin American Countries
- HIST 4830 - The Old South
- HIST 4840 - The New South
- HIST 4850 - The Early National Period of the United States, 1789-1848
- HIST 4860 - The Civil War and Reconstruction
- HIST 4870 - Making of the Modern United States, 1877-1929
- HIST 4880 - United States Since 1929
- HIST 4890-Civil Rights in the United States
- HIST 4895 - American Economic History


## When applicable

- HIST 4260 - Topics in History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis


## Group B: Advanced European history

- HIST 3750-Greek Civilization
- HIST 3760 - Roman Civilization
- HIST 3762 - Rome: The Biography of a City
- HIST 3770 - Ancient and Medieval Women, Gender and Sexuality
- HIST 4010 - History of Science and Technology to Newton
- HIST 4020 - History of Science and Technology Since Newton
- 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 20th Century
- HIST 4070 - World War II
- HIST 4080 - History of Early England from the Anglo-Saxons Through the Tudors
- HIST 4090 - Britain and Ireland in the Age of Revolution, 1603-1832
- HIST 4100 - Modern Britain Since 1830
- HIST 4105 - Britain Since 1945
- HIST 4110 - British Empire and Commonwealth
- HIST 4115 - Canadian History
- HIST 4125 - The Military History of England and its Colonies
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4216 - Rome's Jewish Wars and the Roman Near East
- 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 4230 - The Age of the Reformation
- 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 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 4330 - Absolutism and Enlightenment in Europe, 1648-1789
- HIST 4335 - Age of Revolutions: Europe, 1700-1918
- HIST 4340 - Europe in the Nineteenth Century, 1815-1914
- HIST 4350 - Europe, 1914-1945
- HIST 4360 - Europe since 1945
- HIST 4364 - Early Modern Germany, 1500 to 1815
- HIST 4365 - Modern Germany, 1815-Present
- HIST 4370 - Intellectual, Cultural and Social History of Modern Europe since 1789
- HIST 4380 - The European Witch Hunts
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933-1945
- HIST 4460 - History of Sexualities
- HIST 4650 - Evolution of Warfare to Napoleon
- HIST 4660 - Evolution of Warfare from Napoleon

When applicable

- HIST 4260 - Topics in History
- HIST 4900 - Special Problems
- HIST 4910 - Special Problems
- HIST 4951 - Honors College Capstone Thesis


## Group C: Advanced African, Asian, Middle Eastern and Latin American history

- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 4071 - Korea, Vietnam and the American Military Experience
- HIST 4075 - The Korean and Vietnam Wars
- HIST 4171 - Latin America: The Colonial Experience, 1492-1821
- HIST 4172 - Modern Latin America: 1810 - Present
- HIST 4175 - History of Brazil: 1500-Present
- HIST 4180-Colonial Mexico and the Spanish Southwest
- HIST 4190 - Mexico, 1810-Present
- HIST 4200 - The Spanish Frontier in North America
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4216 - Rome's Jewish Wars and the Roman Near East
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- HIST 4245 - Gender, Race and Class Issues in Middle Eastern History
- HIST 4246 - Imperialism in the Modern Middle East
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4282 - Settler Colonialism and Empire
- HIST 4283 - Decolonization in Asia and Africa
- HIST 4395 - The State of Israel
- HIST 4550 - Imperial China
- HIST 4560-Modern China
- HIST 4565 - Chinese Military History, 1750-Present
- HIST 4570 - Japanese History
- HIST 4580 - Africa to the Nineteenth Century
- HIST 4590 - Modern Africa
- HIST 4605 - History of South Asia, 1757-1947
- HIST 4610-Contemporary South Asia


## When applicable

- HIST 4260 - Topics in History
- HIST 4900 - Special Problems
- HIST 4910-Special Problems
- HIST 4951 - Honors College Capstone Thesis


## 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 Arts and Sciences.

## Minors

## African-American Studies minor

## Requirements

A minor in African-American studies requires 18 hours, including:

- HIST 4440 - African-American History and Culture to 1865
- HIST 4450 - African-American History and Culture Since 1865
- HIST 4580 - Africa to the Nineteenth Century


## Plus three courses

Plus three of the following courses chosen in consultation with an advisor in the Department of History and representing at least two different departments:

- AGER 4560-Minority Aging
- ANTH 3130 - African-American Anthropology
- CJUS 3700 - Ethical Issues in Criminal Justice
- CJUS 4870 - Topics in Criminal Justice
- COMM 4260 - Performance and Culture
- HIST 4260 - Topics in History (when topic relates to African-American studies)
- HIST 4263 - Topics in African-, Asian- or Latin American History (when topic relates to African-American studies)
- HIST 4590-Modern Africa
- HIST 4830 - The Old South
- HIST 4840 - The New South
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- MUET 3030-Music Cultures of the World
- MUJS 4470 - History of Jazz
- PSCI 3100 - Topics in American Government (when topic relates to African-American studies)
- PSCI 4200 - Constitutional Law: Powers of Government
- INFO 4685 - Information Resources in Culturally Diverse Communities
or
- SOCI 2010 - Race, Class, Gender and Ethnicity

Students interested in this minor should contact Dr. Jennifer Wallach, Department of History (jennifer.wallach@unt.edu).

## Asian Studies minor

Various courses are offered in the areas of anthropology, art, history, geography, philosophy and political science to complete the 18-hour minor in Asian studies. Students interested in this minor should contact Dr. Harold Tanner, Department of History (htanner@unt.edu).

## Classical Studies minor

A minor in classical studies requires 18 hours.

## Latin or ancient Greek, 6 hours

Six hours (but no more) of Latin (LATI) or ancient Greek language classes at any level.

## 6 advanced hours

Selected from the following courses:

- AEAH 4802 - Art of Ancient Greece
- AEAH 4803 - Art of Ancient Rome
- ENGL 3360 - Survey of Classical Literature
- HIST 3750-Greek Civilization
- HIST 3760-Roman Civilization
- HIST 3762 - Rome: The Biography of a City
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4216 - Rome's Jewish Wars and the Roman Near East
- HIST 4217 - Jew, Greek and Roman: Backgrounds of Early Christianity
- PHIL 3310-Ancient Philosophy


## Plus 6 hours

The remaining 6 hours to fulfill the 18-hour requirement may be selected from the above list of core courses or other courses listed below:

- ARCH 3650-Origins of Civilization
- ART 2350 - Art History Survey I
- ENGL 3200 - Rhetorical History and Historiography
- ENGL 3431 - Introduction to Early Medieval Literature
- HIST 3770 - Ancient and Medieval Women, Gender and Sexuality
- HIST 4010 - History of Science and Technology to Newton
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4650 - Evolution of Warfare to Napoleon
- PHIL 2310 - Introduction to Ancient Philosophy
- PHIL 3500-Christianity and Philosophy
- PHIL 3510 - Hebrew Bible
- PHIL 3520 - Early Christian Thought
- PSCI 3310 - Political Theory: Socrates to the Eighteenth Century


## or, when focus is ancient,

- AEAH 4801 - Topics in Art History
- HIST 4260 - Topics in History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- HIST 4900 - Special Problems
- PSCI 4330 - Topics in Political Theory


## Additional Information:

Other courses may also qualify, if approved by the classical studies advisor. Interested students should contact Dr. Christopher Fuhrmann, Department of History (cfuhrmann@unt.edu).

## History minor

Students may minor in history by completing 18 semester hours.

## 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


## Plus 6 advanced hours of history

## Jewish and Israel Studies minor

A minor in Jewish and Israel studies requires 18 hours, including:

## Philosophy course

One of the following philosophy courses:

- PHIL 2100 - Introduction to Judaism
- PHIL 3510 - Hebrew Bible
- PHIL 3540-Judaism and Philosophy


## History course

One of the following history courses:

- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4390 - The Holocaust, 1933-1945
- HIST 4395 - The State of Israel


## Four additional courses

In addition, four courses chosen in consultation with the Director of the Jewish and Israel Studies Program and representing at least two different departments are required. These courses include, but are not limited to, the following:

- ENGL 3913 - Topics in World Literature (when taught as "Yiddish Literature" or "The Jewish Graphic Novel" or "Arab-Israeli Conflict and the Graphic Novel" or "Modern Jewish Literature")
- ENGL 3923 - American Jewish Literature
- ENGL 4660 - Literature and the Holocaust
- ENGL 4800-Special Seminar in Literature or Language (when taught as "Hebrew Bible as Literature" or "Film and the Holocaust" or "Literature and the Holocaust")
- HIST 4215 - Jews Under Greek and Roman Rule
- HIST 4216 - Rome's Jewish Wars and the Roman Near East
- HIST 4217 - Jew, Greek and Roman: Backgrounds of Early Christianity
- HIST 4260 - Topics in History (when taught as "Jewish Women: A World Perspective" or as "Ancient Religion and Magic: Hebrew Bible to the Fall of Rome")
- HIST 4262 - Topics in European History (may apply when appropriate and if approved by the JISP director, Dr. Richard Golden)
- HIST 4263 - Topics in African-, Asian- or Latin American History (when taught as "Arab-Israeli Wars" or "Ancient Israel")
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4385 - Nazi Germany
- HIST 4390 - The Holocaust, 1933-1945
- HIST 4395 - The State of Israel
- HIST 4435 - American Jewish Experience
- HIST 4475 - Jewish Women in Modern America
- JOUR 4210 - Topics in Journalism and Mass Media (when taught as "Public Opinion and Propaganda: Israel and the Middle East")
- JOUR 4240 - Comparative International Media Systems (when taught as "Comparative International Media Systems: Israel and the Middle East")
- MUMH 4800-Nazism, Judaism and the Politics of Classical Music in Germany
- MUMH 4810 - Jews, Judaism, Anti-Semitism and Opera
- PHIL 2100 - Introduction to Judaism
- PHIL 3120-Social and Political Philosophy
- PHIL 3320-Medieval Philosophy
- PHIL 3510 - Hebrew Bible
- PHIL 3515 - David, Saul and Solomon: The Early Israelite Monarchy
- PHIL 3525-Rabbinic Judaism
- PHIL 3530 - Kabbalah: Jewish Mysticism, Myth and Magic
- PHIL 3535-Classical Jewish Thought: The 13 Principles of Faith
- PHIL 3540 - Judaism and Philosophy
- PHIL 3550-Jewish Business Ethics
- PHIL 4960 - Topics in Philosophy (when taught as "Jews and Judaism in Modern Israel" or "The Ten Commandments" or "Sexual Ethics in Judaism" or "Sex and the Bible" or "The Historical Jesus")
- PSCI 3100 - Topics in American Government (when taught as "U.S./Israeli Relations: Conflict, Cooperation and Advocacy")
- PSCI 3700 - Area Politics (when taught as "Government and Politics of Israel")
- PSCI 4330 - Topics in Political Theory (when taught "Jewish Political Thought" or "Zionism and Liberalism" or "Medieval Political Thought")
- MRTS 4415 - Topics in Film and Television Genres (when taught as "Israeli Cinema" or "Film and the Holocaust")
- SOCI 4260 - Topics in Sociology (when taught as "The Family and Sex in Modern Israel" or "Contemporary Israel and Turkey" or "The Peoples of Israel: Indentity and Diversity")
- THEA 4500 - Theatre Topics (when taught as "Staging Atrocity: Theatre of the Holocaust" or "The Broadway Musical")
- other topics courses as approved when topic is appropriate.


## Additional information

Other courses may also qualify if approved by the Jewish and Israel Studies advisor. For more information or to sign up for a minor in Jewish and Israel studies, contact the main office at 940-369-8926 or jewish-studies@unt.edu. For academic advisement, contact Dr. Richard Golden at richard.golden@unt.edu or 940-369-8933.

## Mexican-American Studies minor

A minor in Mexican-American studies requires 18 hours.

## Requirements

- ANTH 3210-Meso America
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- HIST 4150-Mexican Immigration and the Chicano Community


## Plus three of the following courses

Plus three of the following courses chosen in consultation with the Mexican-American studies minor advisor and representing at least two different departments:

- ANTH 3140 - Latinos in the U.S.
- ENGL 3922 - Chicano Literature
- HIST 4155 - Mexican American Autobiography
- HIST 4160 - Chicano Political History: 19th and 20th Century
- HIST 4180-Colonial Mexico and the Spanish Southwest
- HIST 4190 - Mexico, 1810-Present
- SOCI 2010 - Race, Class, Gender and Ethnicity
- SPAN 3140 - Mexican Civilization
- WGST 4240 - Latinas Today


## Additional information

Periodic special topics courses offered by departments in the fine arts, humanities, and social sciences (when topics relate directly to MexicanAmerican studies, and with permission of the Mexican-American studies minor advisor) may also qualify and be included as part of the MexicanAmerican studies minor on a course-by-course basis.

Students interested in this minor should contact Dr. Roberto Calderon, Department of History (beto@unt.edu).

## Secondary Teacher Certification

## History teacher certification

The College of Arts and 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 is available on the web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

## 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 4700-Texas
- HIST 4750-Social Studies Teaching Methods


## Upper-level history courses, 24 hours

Distributed throughout the three history groups (Group A, American History; Group B, European History; Group C, African, Asian, Middle Eastern and Latin American History) in the following way: 9 hours from one group of the student's choice, plus 6 hours from the remaining groups.

## Education courses, 21 hours

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 4118 - Student Teaching in the Secondary School
- EDSE 4840 - Instructional Strategies and Classroom Management


## Additional requirements

Students 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.

## Department of Mathematics

Main Departmental Office
General Academic Building, Room 435
Mailing address:
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Denton, TX 76203-5017
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## Su Gao, 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 Arts and Sciences 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 also are available for mathematics majors. Contact the mathematics department office for information and application forms.

## Majors

## Mathematics, BA (non-teacher certification)

A Bachelor of Arts with a major in mathematics provides you 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 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Communication (English Composition and Rhetoric) core requirement

For satisfying the Communication (English Composition and Rhetoric) core requirements, the department suggests:

- ENGL 1310 - College Writing I
- TECM 2700-Technical Writing


## Major requirements

37 hours of mathematics courses, which must include:

## Mathematics core, 16 hours

- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3000-Real Analysis I


## At least one of the following

At least one of the following must be taken in satisfying other requirements:

- MATH 3510-Abstract Algebra I
- MATH 3610 - Real Analysis II


## 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 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 Metamathematics
- 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:

- MATH 3680 - Applied Statistics
- MATH 4610 - Probability
- MATH 4650 - Statistics


## Geometry/topology

Two of the following:

- MATH 3740 - Vector Calculus
- MATH 4060 - Foundations of 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.
Mathematics elective, 6 hours

## Other course requirements

## Science

Three laboratory science courses are required, as follows:

## Option 1

## Group I, Biology for science majors with laboratory

- BIOL 1710 - Biology for Science Majors I and
- BIOL 1760 - Biology for Science Majors Laboratory

Group II, One physical science for science majors, with laboratory, chosen from

- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics or
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry

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.
Mathematics majors with a minor in geography or geology may also choose from the following

Mathematics majors with a minor in geography or geology may also choose from the following in Group I above.

- GEOL 1610 - Introductory Physical Geology
- GEOG 1710 - Earth Science


## Option 2

Group I, Two physical science courses for science majors, with laboratories, chosen from

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics


## Group II, One additional laboratory science course

One laboratory science chosen from any course meeting the natural and life sciences component of the laboratory science requirement of the College of Arts and Sciences.

Note: Equivalent honors courses can also be used to satisfy this requirement.

## Option 3

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.

## Foreign language

Proficiency in a foreign language equivalent to the 2050 level is required. Students intending to pursue a graduate degree in mathematics are encouraged to study French, German or Russian.

## 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:

## Minor of at least 18 hours

A minor of 18 hours (6 advanced). A minor in statistics does not fulfill this requirement.

## Second major

Completion of a second major in addition to mathematics.

## Certificate in actuarial science

Completion of the Actuarial Science certificate. Students must take MATH 3680, MATH 4610 and MATH 4650 for fulfilling degree requirements; students are also encouraged to take MATH 3350 and MATH 3740. No mathematics courses may be chosen for fulfilling the elective requirements of the certificate program.

## 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, 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 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Communication (English Composition and Rhetoric) core requirement

For satisfying the Communication (English Composition and Rhetoric) core requirements the department suggests:

- ENGL 1310 - College Writing I
- TECM 2700-Technical Writing


## Major requirements

43 hours of mathematics courses, which must include:
Mathematics core, 16 hours

- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3000-Real Analysis I


## Secondary teacher preparation, 18 hours

- MATH 2000 - Discrete Mathematics
- MATH 2100 - Functions and Modeling for Secondary Mathematics Instruction
- MATH 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 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 Metamathematics
- MATH 4430 - Introduction to Graph Theory
- MATH 4450 - Introduction to the Theory of Matrices
- MATH 4510 - Abstract Algebra II


## At least one of the following

At least one of the following must be taken in satisfying other requirements:

- MATH 3510-Abstract Algebra I
- MATH 3610 - Real Analysis II


## Other course requirements

## Mathematics education

- TNTX 3100 - Conceptual Algebra and Geometry


## Science

Three laboratory science courses are required, as follows:

## Option 1

## Group I, Biology for science majors with laboratory

- BIOL 1710 - Biology for Science Majors I
and
- BIOL 1760 - Biology for Science Majors Laboratory

Group II, Physical science for science majors with laboratory chosen from

- PHYS 1710-Mechanics
and
- PHYS 1730 - Laboratory in Mechanics
or
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry

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.

Mathematics majors with a minor in geography or geology may also choose from the following in Group I above

- GEOL 1610 - Introductory Physical Geology
- GEOG 1710 - Earth Science


## Option 2

Group I, Two physical sciences for science majors, with laboratories, chosen from

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
or
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics


## Group II, One additional laboratory science course

One laboratory science chosen from any course meeting the natural and life sciences component of the laboratory science requirement of the College of Arts and Sciences.

Note: Equivalent honors courses can also be used to satisfy this requirement.

## Option 3

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.

## 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 Wave Motion, Electricity, Magnetism and Optics
- PHYS 3010 - Modern Physics
- PHYS 3030 - Laboratory in Modern Physics


## Foreign language

Students are encouraged to choose Spanish for the foreign language requirement.

## 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 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 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the "General University Requirements" in the Academics section of this catalog and the College of Arts and Sciences requirements.

## Communication (English Composition and Rhetoric) core requirement

For satisfying the Communication (English Composition and Rhetoric) core requirements, the department suggests:

- ENGL 1310 - College Writing I
- TECM 2700 - Technical Writing


## Major requirements

43 hours of mathematics courses, which must include:

## Mathematics core, 16 hours

- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3000-Real Analysis I


## At least one of the following

At least one of the following must be taken in satisfying other requirements:

- MATH 3510-Abstract Algebra I
- MATH 3610-Real Analysis II


## 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 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 Metamathematics
- MATH 4430 - Introduction to Graph Theory
- MATH 4450-Introduction to the Theory of Matrices
- MATH 4510-Abstract Algebra II


## Probability/statistics

- MATH 3680 - Applied Statistics
- MATH 4610 - Probability
- MATH 4650 - Statistics


## Geometry/topology

- MATH 3740 - Vector Calculus
- MATH 4060 - Foundations of 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.

## Mathematics electives, 9 hours

Three additional upper-level mathematics courses chosen from MATH 2000 or any 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 1710 - Mechanics and
- PHYS 1730-Laboratory in Mechanics
or
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry


## Option 2, Chemistry emphasis

(must be chemistry intended for science majors)

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- One additional course that meets the University Core Curriculum requirements 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 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- 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 - Introductory Physical 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 for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry


## Foreign language

Students may complete either of two options to satisfy the College of Arts and Sciences 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 Writing
- 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 certificate program in actuarial science. Students must take MATH 3680, MATH 4610 and MATH 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.

## 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, 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 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 the College of Arts and Sciences requirements.

## Communication (English Composition and Rhetoric) core requirement

For satisfying the Communication (English Composition and Rhetoric) core requirements, the department suggests:

- ENGL 1310 - College Writing I
- TECM 2700-Technical Writing


## Major requirements

46 hours of mathematics courses, which must include:
Mathematics core, 16 hours

- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3000-Real Analysis I


## Secondary teacher preparation, 18 hours

- MATH 2000 - Discrete Mathematics
- MATH 2100 - Functions and Modeling for Secondary Mathematics Instruction
- MATH 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 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 Metamathematics
- 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
- MATH 4650 - Statistics


## At least one of the following

At least one of the following must be taken in satisfying other requirements:

- MATH 3510-Abstract Algebra I
- MATH 3610 - Real Analysis II


## Other course requirements

## Mathematics education

- TNTX 3100 - Conceptual Algebra and Geometry


## 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 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics or
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry


## Option 2, Chemistry emphasis

(must be chemistry intended for science majors)

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- 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 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- 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 - Introductory Physical 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 for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry


## 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 Wave Motion, Electricity, Magnetism and Optics
- 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 Arts and Sciences 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 Writing
- 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.

## 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
- At least 12 hours of mathematics courses (6 advanced) above MATH 1720


## Interdisciplinary studies majors may substitute 3 hours

In place of 3 of the 12 hours required above MATH 1720, interdisciplinary studies 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
- MATH 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
- MATH 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
- MATH 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
- MATH 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

Interdisciplinary studies (elementary education) majors

- MATH 3000-Real Analysis I (Math specialist)
- MATH 3400 - Number Theory
- MATH 3410 - Differential Equations I
- MATH 3680 - Applied Statistics


## Statistics minor

A minor in statistics requires 22 hours.

## Requirements

## Mathematics, 19 hours

- MATH 1710-Calculus I
- MATH 1720 - Calculus II
- MATH 2730 - Multivariable Calculus
- MATH 3680 - Applied Statistics
- MATH 4610 - Probability
- MATH 4650 - Statistics


## 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 2300 - Introduction to Political Research
- PSYC 3630 - Introduction to Psychological Measurement


## Additional information

Other courses may be permissible if approved in advance by an undergraduate advisor in the Department of Mathematics.

## Undergraduate Academic Certificates

## Actuarial Science certificate

Students interested in this interdisciplinary certificate program should contact the undergraduate advisor of the mathematics department.

## Requirements for admission to program

- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3680-Applied Statistics
or
- ECON 4630 - Research Methods for Economists
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
- FINA 4210 - Introduction to Derivatives


## Plus three courses selected from

- FINA 4300, FINA 4310 and FINA 4400 . FINA 4310 is recommended.
- RMIN 2500 or any 4000 -level RMIN course. Recommended courses are RMIN 2500, RMIN 4200 and RMIN 4310 . Students are also encouraged to seek internships that may be pursued in conjunction with RMIN 4800.
- ECON 4030, ECON 4180 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
- FINA 4210 - Introduction to Derivatives
- MATH 4610 - Probability


## Plus two courses selected from

- MATH 3350, MATH 3410, MATH 3740, MATH 4600 and MATH 4650. MATH 4600 is recommended.
- FINA 4300, FINA 4310 and FINA 4400. FINA 4310 is recommended.
- RMIN 2500 or any 4000-level RMIN course. Recommended courses are RMIN 2500, RMIN 4200 and RMIN 4310. Students are also encouraged to seek internships that may be pursued in conjunction with RMIN 4800.
- ECON 4030, ECON 4180 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
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

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.

## Mathematics of Scientific Computation certificate

A certificate in the mathematics of scientific computation consists of 18 hours of course work as follows:

## Required courses

- CSCE 1030-Computer Science I
- MATH 3350 - Introduction to Numerical Analysis
- MATH 3410 - Differential Equations I


## Plus 9 hours selected from

9 hours of advanced courses with at least one math class and one non-math class selected from:

- MATH 3420 - Differential Equations II
- MATH 3740 - Vector Calculus
- MATH 3850 - Mathematical Modeling
- MATH 4100 - Fourier Analysis
- MATH 4200 - Dynamical Systems
- BIOL 4810 - Biocomputing
- BIOL 4820 - Computational Epidemiology
- CHEM 4660 - Introduction to Computational Chemistry
- CSCE 3010 - Signals and Systems
- CSCE 3850 - Introduction to Computational Life Science
- CSCE 4240 - Introduction to Digital Image Processing
- CSCE 4810 - Biocomputing
- CSCE 4820 - Computational Epidemiology
- EENG 2620 - Signals and Systems
- MEET 3940-Fluid Mechanics Applications
- MEET 3990-Applied Thermodynamics
- MEET 4350 - Heat Transfer Applications
- MTSE 4040 - Computational Materials Science
- MTSE 4070 - Electronic Materials
- MEEN 2210-Thermodynamics I
- MEEN 3110-Thermodynamics II
- MEEN 3120 - Fluid Mechanics
- MEEN 3230-System Dynamics and Control
- PHYS 3310 - Mathematical Methods in the Physical Sciences
- PHYS 4110 - Statistical and Thermal Physics
- PHYS 4210 - Electricity and Magnetism
- PHYS 4600-Computer Based Physics


## Additional Information:

Other courses may be allowed if approved in advance by an undergraduate advisor in the Department of Mathematics. Although not required, students completing this certificate are also strongly encouraged to complete CSCE 1040.

## Statistics certificate

A certificate in statistics consists of:

## Requirements

## Mathematics, 12 hours

- MATH 3680 - Applied Statistics
- MATH 4610 - Probability
- MATH 4650 - Statistics


## One course chosen from

One additional course concerning the application of statistical methods to another discipline 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 2300 - Introduction to Political Research
- PSYC 3630 - Introduction to Psychological Measurement


## Additional information

Other courses may be permissible if approved in advance by an undergraduate advisor in the Department of Mathematics.

## Department of Media Arts

Main Departmental Office<br>Radio, TV, Film and Performing Arts Building, Room 262<br>Mailing address:<br>1155 Union Circle \#310589<br>Denton, TX 76203-5017<br>940-565-2537<br>Fax: 940-369-7838<br>E-mail: MediaArts@unt.edu<br>Web site: www.mediaarts.unt.edu

## Eugene Martin, 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. In a rapidly evolving marketplace, the Department of Media Arts prepares students with a wide range of knowledge and skills for careers in traditional media (broadcasting, film production) and emerging media (digital and social media platforms). Media arts students are provided a liberal arts education combined with hands-on experience utilizing similar tools used by industry professionals.

The department offers two degrees - a Bachelor of Arts with a major in media arts (MRTS) and a Bachelor of Arts with a major in converged broadcast media (CBCM). MRTS and CBCM faculty include top scholars and former media practitioners with many years of experience.

The media arts (MRTS) major provides a comprehensive background in media production, along with courses devoted to writing, industry studies, history and critical/cultural studies. The CBCM major provides a comprehensive background in media convergence, web-based production of news and information, as well as courses devoted to covering sports, entertainment and political events.

Located within the thriving Dallas-Fort Worth market (currently ranked number 5 in the U.S.) the department frequently hosts professionals who serve as guest speakers and adjunct professors. The department also has an executive board made up of professionals and alumni who provide guidance on curricular development and industry trends. The location within the DFW market offers numerous internship and part-time employment opportunities while students are pursuing their degrees.

## Admission to the major

Only MRTS and CBCM majors can take MRTS and CBCM courses. Entering students interested in majoring in MRTS or CBCM must fulfill initial requirements and be advised by the advising office. Admission to the university does not guarantee admission to either major. Admission to both majors is highly competitive and limited by the number of applicants and available resources. This means that if space or technical resources availability is declining, applications for MRTS or CBCM major status may be submitted to a departmental admissions committee for review. For further information on Admissions and requirements see Media Arts, BA and Converged Broadcast Media, BA.

## Suggested minors for BA with a major in Media Arts

Students majoring in media arts may choose a minor field of study. Suggested minors coordinated with student career goals are art/photography (for careers in film), business (marketing and management), theatre (production/performance), journalism and social sciences (general).

## Digital media studies certificate

In conjunction with the Department of Communication Studies and the Department of Technical Communication, the Department of Media Arts offers a Digital Media Studies certificate (MRTS).

In the 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.

## KNTU-FM

KNTU-FM 88.1/kntu.com serves the McKinney-Denton-Dallas-Fort Worth area 24 hours a day with educational, news, sports and entertainment content. All students at UNT are eligible to work at KNTU/kntu.com, where they can participate in creating content for KNTU's broadcast and Internet platforms. 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 a dynamic opportunity to all UNT students by providing them with the opportunity to create, 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; Society for Cinema and Media Studies; and the Radio, Television Digital News Association (RTDNA) student chapter.

## Scholarships

The Department of Media Arts scholarships are awarded each year in the spring semester. Information for applications is posted in January. Scholarship money is applied toward tuition in the fall term/semester.

Alan and Beverly Albarran Scholarship is a fund to provide scholarships for undergraduate or graduate students in the Department of Media Arts who are pursuing an industry studies emphasis in their degree.

Cindy Coyle Memorial Scholarship is an academic scholarship for a student in the Department of Media Arts who has expressed a career interest specifically in radio.

Edwin L. Glick Scholarship is an academic scholarship award to recognize demonstrated excellence and promise in the study of broadcasting and cable at the University of North Texas.

First Broadcasting Scholarship is an academic scholarship for a student in the Department of Media Arts who has demonstrated an interest in radio broadcasting as a career through participation with either KNTU or off-campus internships.

Kathleen Woodby Scholarship is a scholarship for undergraduate students in the Department of Media Arts.
Mark Rybczyk 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.

Paramount Pictures Undergraduate Scholarship is an academic scholarship award to recognize demonstrated excellence and promise in the study and production of electronic media and film at the University of North Texas.

Staples Graduate Scholarship is an academic scholarship awarded to a graduate student in the Department of Media Arts.

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.

Walter P. Deed Scholarship is an academic scholarship awarded to a student in the Department of Media Arts who has expressed a career interest in television engineering.

## Requirements

1. Meet minimum entrance and academic performance standards of the College of Arts and Sciences and the Department of Media Arts.
2. Students must be enrolled for at least 12 hours of study in both the spring and fall terms/semesters.
3. Enroll as full-time undergraduate major in the Department of Media Arts
4. Minimum of 60 hours of course work toward a degree completed at the time of application.
5. Minimum GPA of 3.0 for courses taken at UNT.

## Application

Applications are accepted in the spring term/semester after the call for applications is posted. An application must include the student's name, ID number, hours completed through fall of the previous year, UNT GPA, overall GPA and name of a media arts faculty familiar with your work. The following questions need to be addressed in a typed letter of application:

1. What are your professional goals upon graduation from UNT?
2. How have you prepared to accomplish these goals through your education and outside activities?
3. How will this award help you accomplish your goals?

## 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.

To qualify, students must successfully complete at least 42 hours of college courses before applying for major status (see "Admission to the Major"). Initial requirements must be completed with a minimum 2.75 GPA before applying for major status. Students must have and maintain a minimum 2.75 GPA in all university courses to complete this major.

## CBCM admission and initial requirements

Only CBCM and MRTS majors may take MRTS and CBCM courses. Entering students interested in majoring in CBCM must fulfill initial requirements and be advised by the advising office. Admission to the university does not guarantee admission to the CBCM major. The media arts department's initial requirements must be fulfilled before a student may apply for CBCM major status. Entering students who elect to pursue the major in converged broadcast media will not be classified as CBCM majors until they fulfill the initial requirements. To do this, a student must successfully complete 42 hours of college courses including the CBCM/MRTS requirements listed below with a UNT grade point average of 2.75 or better and a C or better in each CBCM/MRTS course. Students may apply for CBCM major status when all of the required classes have been completed.

## Admission to the major

Before applying for CBCM major status, a student must first complete:

## 42 hours of college courses, including

- COMM 1010 - Introduction to Communication or equivalent (contact media arts department for list).
- The Communication (English Composition and Rhetoric) requirement of the University Core Curriculum with a grade of C or better.
- The Mathematics requirement of the University Core Curriculum.
- The foreign language requirement at least through the 1020 level (or the placement equivalent).


## Requirements to enroll in MRTS 1310, MRTS 2210 or CBCM 2400

Students who wish to enroll in MRTS 1310, MRTS 2210 or CBCM 2400 must fulfill the following requirements:

1. Entering freshmen with no college credit must successfully complete at least 12 hours of UNT course work with a UNT GPA of 2.75 or better.
2. Transfer students with college credit must transfer a minimum of 12 hours of course work accepted by UNT with a GPA of 2.75 or better. Students who do not meet this requirement must successfully complete at least 12 hours of UNT course work with a GPA of 2.75 or better.

Note: Students may not register for any upper-level MRTS/CBCM courses until full-major status is attained.

## Continued enrollment in MRTS/CBCM courses

Students must meet the following minimum standards for continued enrollment in MRTS/CBCM courses:

1. Complete MRTS 1310, MRTS 2210 and CBCM 2400 with a grade of $C$ or better. Students earning less than a C in any one of these three courses will be allowed to repeat that course only once. Students failing to earn a C or better on the second attempt will not be allowed to repeat these courses and will not be awarded major status in the department.
2. Have at least a 2.75 UNT GPA. CBCM majors must maintain a UNT GPA of 2.75. CBCM students whose GPAs fall below this standard will be informed of their status by the media arts department and may not take any classes in the media arts department until they return their UNT GPA to 2.75 or better.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

## 42 hours in the major

Students must complete 42 hours in the major (at least 33 advanced), including:

- CBCM 2400 - Digital Media Writing
- MRTS 1310 - Perspectives on Broadcast, Cable and Internet Technology
- MRTS 2210 - Introduction to Media Arts Production


## 15 hours from

- CBCM 3500-Video Photography, Editing and Reporting for Digital Media
- CBCM 3525 - Content Development for Digital Media
- MRTS 3560 - Interviewing and Performance for Electronic News
- MRTS 4320 - Electronic Media Law and Regulations
- MRTS 4455 - Ethical Decision-Making in the Media

Plus 6 hours from the following

- MRTS 4170 - Television Field Production
- MRTS 4420 - Electronic Media Programming
- MRTS 4430 - Electronic Media Management
- MRTS 4440 - Electronic Media Sales
- MRTS 4480 - Internship in Media Arts
- MRTS 4670 - Media Economics
- MRTS 4850 - Television News Producing


## MRTS electives, 12 additional hours

12 additional hours of electives selected from the following:

- MRTS 3300-Radio and Television Announcing
- MRTS 3330-Sports Broadcasting I
- MRTS 3340-Sports Broadcasting II
- MRTS 3482 - Radio Practicum
- MRTS 3501 - Television Practicum
- MRTS 3502 - Advanced Television Practicum
- MRTS 4130 - Convergence Practicum
- MRTS 4360 - International Communication
- MRTS 4410 - Media Studies Topics
- MRTS 4411 - Video Production Topics
- MRTS 4430 - Electronic Media Management
- MRTS 4445 - Media in the 21st Century
- MRTS 4450 - Topics in Industry Studies
- MRTS 4850 - Television News Producing
- MRTS 4900- Special Problems


## Other course requirements

COMM 1010 or its equivalent.

## Minor

Optional.

## Electives

[^3]
## Other requirements

A minimum 2.0 cumulative UNT GPA is required to graduate. Only 12 hours of MRTS/CBCM courses taken at other institutions may be applied toward the major.

Students must observe prerequisites for each CBCM/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.

Because of the high demand for many MRTS/CBCM courses, students who miss the first class without consent of the instructor are subject to be 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 should notify the department office the day of the absence.

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.

## 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 or CBCM courses.

Entering students interested in majoring in MRTS must fulfill initial requirements and will be advised by the media arts department. Admission to the university does not guarantee admission to the MRTS major. Admission to the major is highly competitive and is limited by the number of applicants and available resources.

The media arts department's initial requirements must be fulfilled before a student can apply for MRTS major status.
Entering students who elect to pursue the MRTS-BA major will not be classified as MRTS majors until they fulfill the initial requirements. To do this, a student must successfully complete 42 hours of college courses including the MRTS requirements listed below with a UNT grade point average of 2.75 or better and a C or better in the MRTS courses. A student may apply for major status when all of the required classes have been completed.

Before applying for MRTS major status, a student must first:

- Complete at least 42 hours of college courses including:
a. COMM 1010 or equivalent (contact department);
b. The Communication (English Composition and Rhetoric) requirement of the University Core Curriculum with a grade of C or better;
c. The Mathematics requirement of the University Core Curriculum;
d. The foreign language requirement through at least the 1020 level (or the placement equivalent); and
e. The following courses, all with a grade of C or better.

O MRTS 1310 - Perspectives on Broadcast, Cable and Internet Technology
O MRTS 1320 - Perspectives on Film
O MRTS 2010 - Introduction to Media Arts Writing
Note: Students earning less than a C in any one of these three courses will be allowed to repeat that course only once. Students failing to earn a C or better on the second attempt will not be allowed to repeat MRTS 1310, MRTS 1320 or MRTS 2010 for a third time and will not be awarded MRTS major status in the department.

Students who wish to enroll in MRTS 1310, MRTS 1320 or MRTS 2010 must fulfill the following requirements:

1. Entering freshmen with no college credit must successfully complete at least 12 hours UNT course work with a UNT GPA of 2.75 or better.
2. Transfer students with college credit must transfer a minimum of 12 hours of course work accepted by UNT with a GPA of 2.75 or better. Students who do not meet this requirement must successfully complete at least 12 hours of UNT course work with a GPA of 2.75 or better.

Note: Students may not register for any upper-level MRTS courses until full-major status is attained.

## Minimum standards for continued enrollment in MRTS courses

Have at least a 2.75 UNT GPA.
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.

## Degree requirements

## Hours required and general/college requirements


#### Abstract

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 Academics section of this catalog and the College of Arts and Sciences requirements.

Students interested in a BA with a major in media arts must apply to the department after successfully completing the initial requirements specified under "Admission to the MRTS Major," above.


## Major requirements

Students must complete 42 hours (at least 30 advanced) in the major, including:

## Required courses

- MRTS 1310 - Perspectives on Broadcast, Cable and Internet Technology
- MRTS 1320 - Perspectives on Film
- 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 - Video Production
- MRTS 3230 - Film Style Production
- MRTS 3300-Radio and Television Announcing
- MRTS 3330 - Sports Broadcasting I
- MRTS 3340 - Sports Broadcasting II
- MRTS 3482 - Radio Practicum
- MRTS 3483 - Film Practicum
- MRTS 3501 - Television Practicum
- MRTS 3502 - Advanced Television Practicum
- MRTS 3560 - Interviewing and Performance for Electronic News
- MRTS 3650-Advanced Audio Production
- MRTS 4140 - Intermediate Film Production
- MRTS 4160 - Advanced Videography
- MRTS 4170 - Television Field Production
- MRTS 4400 - Advanced Film Production
- MRTS 4411 - Video Production Topics
- MRTS 4412 - Film Production Topics
- MRTS 4413 - Audio Production Topics
- MRTS 4650 - Location Recording and Post Sound Production
- MRTS 4750 - Advanced Video Production
- MRTS 4740 - Theories and Techniques of Visual Editing
- MRTS 4760 - Documentary Preproduction
- 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 3360-Social Media Strategies
- MRTS 4100 - Professional Event Directing: Theory and Practice
- MRTS 4320 - Electronic Media Law and Regulations
- MRTS 4360-International Communication
- MRTS 4420 - Electronic Media Programming
- MRTS 4430 - Electronic Media Management
- MRTS 4440 - Electronic Media Sales
- MRTS 4445 - Media in the 21st Century
- MRTS 4450 - Topics in Industry Studies
- MRTS 4455 - Ethical Decision-Making in the Media
- MRTS 4470 - Topics in Media Writing
- MRTS 4475 - Digital Media and Society
- MRTS 4510 - Corporate Media
- MRTS 4670-Media Economics
- MRTS 4850 - Television News Producing

History or criticism, 6 hours

6 hours of advanced credit in history or criticism courses selected from:

- MRTS 3465 - American Film History
- MRTS 3470 - Film History to 1945
- MRTS 3475 - Film History from 1945
- MRTS 3610 - Film and Television Analysis
- MRTS 4110 - U.S. Radio History
- MRTS 4120 - U.S. Television History
- MRTS 4200 - Applied Multimedia Aesthetics
- MRTS 4220 - Post-War European Film
- MRTS 4240 - Hitchcock Films
- MRTS 4340 - History of the Documentary
- MRTS 4350 - Film Authors
- MRTS 4410 - Media Studies Topics
- MRTS 4415 - Topics in Film and Television Genres
- MRTS 4520-African-American Film
- MRTS 4530-Gender and Sexuality in the Horror Film
- MRTS 4540 - Lesbian, Gay and Queer Film and Video
- MRTS 4550 - Cinema and Video Verite


## Additional requirements

- 12 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

- COMM 1010-Introduction to Communication 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 Arts and Sciences.

## Other requirements

A minimum 2.0 cumulative UNT GPA is required to graduate. Only 12 hours of MRTS courses taken at other institutions may be applied toward the 42-hour requirement.

Students majoring in media arts are required to have a minimum grade of C in all MRTS courses to receive MRTS credit. 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.

Because of the high demand for many MRTS courses, students who miss the first class without consent of the instructor are subject to be 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 should notify the department office the day of the absence.

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 courses.

Aural competency in distinguishing discrete sounds, and visual competency in distinguishing shapes, forms, colors and movements are required to complete MRTS critical studies courses. Additional visual competency to utilize studio and location equipment and manual dexterity to operate equipment are required to complete MRTS production courses. Articulation competency to achieve broadcast industry standards may be required. Specific competency and departmental approval for internship, seminar and special problems courses are required.

## Undergraduate Academic Certificates

## 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

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 3820-Social Media Perspectives
- MRTS 3360-Social Media Strategies
- TECM 1500-New Media for Your College Career
or
- TECM 3500 - Digital Media for Professional Communication


## Electives, 6 hours

Selected from the following courses:

- COMM 3420-Communication and New Technology
- COMM 4320-Communications and Virtual Gaming
- JOUR 4270 - Strategic Social Media
- MRTS 4475 - Digital Media and Society
- TECM 3200 - Information Design for Electronic Media
- Internship option (TECM 4920, MRTS 4480 or COMM 4800) with departmental approval
- Other courses approved by certificate advisor


## 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

- MRTS 4430 - Electronic Media Management
- MRTS 4670-Media Economics


## Plus two courses selected from

- MRTS 4320 - Electronic Media Law and Regulations
- MRTS 4360 - International Communication
- MRTS 4420 - Electronic Media Programming
- MRTS 4450 - Topics in Industry Studies
- Or other course approved by program advisor


## Spanish Language Media certificate

This certificate program provides students with a basic understanding of Spanish history, culture, politics, language and media. The certificate requires 15 hours (an optional internship is recommended). Eligible students for this certificate are those majoring in MRTS or CBCM and are taking Spanish to fulfill their language requirement.

## Required courses

- MRTS 4450 - Topics in Industry Studies (when taught as "Seminar in Spanish Language Media")
- SPAN 4040 - Spanish Writing for the Mass Media Professions


## Plus 3 hours from

- SPAN 3140-Mexican Civilization
- SPAN 3150-Spanish Culture and Civilization
- SPAN 3160 - Latin American Culture and Civilization


## Electives, 6 hours

Two electives from the following:

- ANTH 3200 - Peoples and Cultures of Latin America
- ANTH 3210-Meso America
- ANTH 4300 - Migrants and Refugees
- ENGL 3922 - Chicano Literature
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- HIST 4150 - Mexican Immigration and the Chicano Community
- HIST 4160 - Chicano Political History: 19th and 20th Century
- HIST 4172 - Modern Latin America: 1810 - Present
- HIST 4190-Mexico, 1810-Present
- PSCI 3700 - Area Politics (when taught as "Latin America")
- PSCI 3810 - International Relations
- WGST 4240 - Latinas Today


## 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 and CBCM 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.

## RTVF and CBCM courses, 15 hours

- CBCM 2400 - Digital Media Writing
- CBCM 3500 - Video Photography, Editing and Reporting for Digital Media
- MRTS 1310 - Perspectives on Broadcast, Cable and Internet Technology
- MRTS 2210 - Introduction to Media Arts Production
- MRTS 4850-Television News Producing


## Elective, 3 hours

Plus one 3-hour elective course selected from:

- CBCM 3525 - Content Development for Digital Media
- MRTS 4320 - Electronic Media Law and Regulations
- MRTS 4430 - Electronic Media Management
- MRTS 4450 - Topics in Industry Studies


# Department of Philosophy and Religion 

Main Departmental Office<br>Environmental Education, Science and Technology Building, Room 225

Mailing address:
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940-565-2266
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E-mail: philosophy@unt.edu
Web site: www.phil.unt.edu
Michael Thompson, Director of Undergraduate Studies and Undergraduate Advisor
E-mail: michael.thompson@unt.edu
Environmental Education, Science and Technology Building, Room 320E

## James Kennedy, Chair

## 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 philosophy of science, social-political philosophy, epistemology and logic. 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. Religious studies 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. Religious studies is 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. This major equips students for employment in the public, private and nonprofit sectors including medicine, law, business, publishing, social service and teaching. Religious studies is also excellent preparation for graduate and professional schools.

## 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 religious studies 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 non-Western philosophy and religion. Our course work will provide you not only insight into the world's cultural heritage, but also into every other field of study in the sciences and humanities.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

The major requires completion of 30 hours in philosophy including:

- PHIL 2050 - Introduction to Logic
or
- PHIL 3300 - Symbolic Logic
- PHIL 3310 - Ancient Philosophy
- PHIL 3330 - Modern Philosophy
- PHIL 4400 - Metaphysics
or
- PHIL 4100 - Epistemology
or
- PHIL 3600 - Philosophy of Religion
- PHIL 3400 - Ethical Theory
or
- PHIL 3120-Social and Political Philosophy
- PHIL 3450 - Philosophy of Technology or
- PHIL 4750 - Philosophy and Public Policy
- PHIL 4450 - Philosophy of Ecology or
- PHIL 4700 - Environmental Ethics 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 Arts and Sciences.

## Religious Studies, BA

With a Bachelor of Arts with a major in religious studies, you gain a thorough understanding of the beliefs, practices and histories of multiple religious traditions and hone your oral and written communication skills.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in religious studies.

## Hours required/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 General university requirements in the "Academics" section of the UNT Undergraduate Catalog.

## Major requirements

Majors must complete 33 hours of credit.

## Introduction to Religious Studies, 3 hours

- PHIL 2070-Great Religions
- PHIL 2100 - Introduction to Judaism
- PHIL 2400 - Religion and American Society

Theoretical Approaches, 3 hours

- ANTH 4751 - The Supernatural: Magic, Witchcraft and Religion
- PHIL 3600 - Philosophy of Religion
- SOCI 3700 - Sociology of Religion

Christianity, 3 hours

- PHIL 3320 - Medieval Philosophy
- PHIL 3500-Christianity and Philosophy
- PHIL 3520 - Early Christian Thought

Judaism, 3 hours

- PHIL 3510 - Hebrew Bible
- PHIL 3525 - Rabbinic Judaism
- PHIL 3530 - Kabbalah: Jewish Mysticism, Myth and Magic
- PHIL 3535 - Classical Jewish Thought: The 13 Principles of Faith
- PHIL 3540 - Judaism and Philosophy

Islam, 3 hours

- HIST 3450 - Islam and its Empires
- HIST 3460 - Modern Middle Eastern History
- HIST 4240 - Nationalism, Zionism and Islamism in Modern Middle Eastern History
- PSCI 4824 - Islam, Democracy and Human Rights


## South Asian Religions, 3 hours

- PHIL 3620 - South Asian Philosophy and Religion
- PHIL 3625 - Modern South Asian Philosophy and Religion
- PHIL 3630 - Jainism


## Religion, Science and the Environment, 3 hours

- PHIL 3650 - Religion and Science
- PHIL 3660 - Western Religion and the Environment
- PHIL 3665 - Eastern Religion and the Environment


## Religion and History, 3 hours

- 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 4230 - The Age of the Reformation
- HIST 4290 - Intellectual, Cultural and Social History of Medieval and Early Modern Europe
- HIST 4550 - Imperial China

Capstone seminar, 3 hours

- PHIL 4975 - Religious Studies Capstone Seminar


## Advanced electives, 6 hours

Students must take two advanced electives, either from the above groups of courses or any of the following approved electives:

- PHIL 3515 - David, Saul and Solomon: The Early Israelite Monarchy
- PHIL 3550-Jewish Business Ethics
- PHIL 3635 - Bollywood
- PHIL 3680 - Buddhism, Daoism, Shintoism
- $\quad$ SOCI 3900 - Race and Christianity
- ANTH 3700 - Peoples and Cultures of South Asia
- HIST 3762 - Rome: The Biography of a City
- HIST 3770 - Ancient and Medieval Women, Gender and Sexuality
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4380 - The European Witch Hunts
- HIST 4390 - The Holocaust, 1933-1945
- HIST 4435 - American Jewish Experience
- HIST 4475 - Jewish Women in Modern America
- ENGL 3923-American Jewish Literature
- ENGL 4440 - Milton
- PSCI 4150 - Religion and Politics in the United States
- AEAH 4804-Medieval Art
- AEAH 4805 - Topics in Medieval Art
- AEAH 4825 - Topics in Islamic and/or Middle Eastern Art
- MUMH 4800-Nazism, Judaism and the Politics of Classical Music in Germany
- MUMH 4810-Jews, Judaism, Anti-Semitism and Opera


## Other course requirements

None.

## Minor

Optional.

## Other requirements

A minimum grade of C is required for all courses counting toward the Bachelor of Arts with a major in religious studies. Students majoring in religious studies must contact the Department of Philosophy and Religion Director of Undergraduate Studies, ENV 320C, to prepare their degree audits.

## Minors

## Philosophy minor

A minor in philosophy consists of 18 semester hours, including 6 advanced hours.

## Religion Studies minor

A minor in religion studies consists of 18 semester hours from the departments of philosophy and religion, anthropology, history and English. Courses must be selected from an approved list. Courses not on the approved list are to be approved by the Department of Philosophy and Religion advisor.

## Department of Physics

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Web site: www.phys.unt.edu

David Schultz, Chair
Chris Littler, 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 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 Arts and Sciences section of this catalog.

## Majors

## Physics, BA

A Bachelor of Arts with a major 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.

The BA with a major in physics is designed for students planning to teach physics in public school, taking a double major or desiring a liberal arts education with a science concentration.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

27 hours in physics to include:

- 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 Wave Motion, Electricity, Magnetism and Optics
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
- Plus 15 more 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

- MATH 1710-Calculus I
- MATH 1720 - Calculus II
- MATH 2730 - Multivariable Calculus
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry


## 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 Arts and Sciences.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements (excluding foreign language and natural and life sciences).

## Major requirements

## Option I required courses

Minimum of 46 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 and
- PHYS 1520-General Physics II with Calculus and
- PHYS 1540-General Physics with Calculus Laboratory II
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- 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 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 36 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 and
- PHYS 1520-General Physics II with Calculus and
- PHYS 1540-General Physics with Calculus Laboratory II
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics
- PHYS 3210-Mechanics
- PHYS 3310-Mathematical Methods in the Physical Sciences
- 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

- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430-Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CSCE 1020 - Program Development


## 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."

## 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 Arts and Sciences.

## 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.

## 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 Arts and 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.

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.

- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics
- PHYS 4700 - Research Methods for Secondary Science Instruction
- 12 hours any upper-division PHYS courses (except PHYS 4900, PHYS 4910)
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412 - General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2730 - Multivariable Calculus


## 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.

- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics
- PHYS 3210 - Mechanics
- PHYS 3310 - Mathematical Methods in the Physical Sciences
- PHYS 4110-Statistical and Thermal Physics
- PHYS 4210 - Electricity and Magnetism
- PHYS 4310 - Quantum Mechanics
- PHYS 4700 - Research Methods for Secondary Science Instruction
- PHYS 4950 - Senior Thesis (3 hours)
- PHYS 4955 - Senior Thesis Capstone (3 hours)
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CSCE 1020 - Program Development
- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I


## Additional information

See major 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 is available on the web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

## Physics/Mathematics teacher certification

The College of Arts and Sciences 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.

- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics
- PHYS 4700 - Research Methods for Secondary Science Instruction
- 12 hours of any upper-division PHYS courses (except PHYS 4900, PHYS 4910)
- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2730 - Multivariable Calculus
- MATH 3000-Real Analysis I
- MATH 4060 - Foundations of Geometry
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412-General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1413 - Honors General Chemistry and CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422-General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry


## 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.

- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- PHYS 3010 - Modern Physics and
- PHYS 3030 - Laboratory in Modern Physics
- PHYS 3210-Mechanics
- PHYS 3310 - Mathematical Methods in the Physical Sciences
- PHYS 4110 - Statistical and Thermal Physics
- PHYS 4210 - Electricity and Magnetism
- PHYS 4310-Quantum Mechanics
- PHYS 4700 - Research Methods for Secondary Science Instruction
- PHYS 4950 - Senior Thesis (3 hours)
- PHYS 4955 - Senior Thesis Capstone (3 hours)
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1412 - General Chemistry for the Honors College and
- CHEM 1430 - Laboratory Sequence for General Chemistry
or
- CHEM 1413 - Honors General Chemistry and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1422- General Chemistry for the Honors College and
- CHEM 1440 - Laboratory Sequence for General Chemistry or
- CHEM 1423 - Honors General Chemistry and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- CSCE 1020 - Program Development
- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I
- MATH 4060 - Foundations of Geometry


## 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 is available on the web site of the State Board for Educator Certification (SBEC), www.tea.state.tx.us.

## Department of Political Science

Main Departmental Office<br>Wooten Hall, Room 125<br>Mailing address:<br>1155 Union Circle, \#305340<br>Denton, TX 76203-5017<br>940-565-2276<br>Web site: www.politicalscience.unt.edu<br>Political Science Advising Office<br>Wooten Hall, Room 141<br>940-565-2310<br>\section*{Matthew Eshbaugh-Soha, 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 1050. 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 recentered 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

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

## 30 hours in political science

Political science majors must complete 30 hours in political science:

- PSCI 1040 - American Government: Laws and Institutions or
- PSCI 1041 - Honors American Government
- PSCI 1050 - American Government: Process and Policies
or
- PSCI 1051 - Honors American Government
or
- PSCI 1060 - American Government: Topics
- PSCI 2300 - Introduction to Political Research
- 21 advanced hours, including at least one advanced course each in three of the listed areas of study; and completion of either 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 3110 - The Legislative Process
- PSCI 3120 - Women and Politics
- PSCI 3130 - Interest Groups
- PSCI 3160 - Mass Media in American Politics
- PSCI 3420 - Bureaucracy and Public Policy
- PSCI 4020 - Urban Politics
- PSCI 4100 - Political Parties
- PSCI 4120 - Public Opinion and Participation
- PSCI 4140 - The Presidency
- PSCI 4450 - Public Policy Analysis

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 4220 - Jurisprudence
- PSCI 4810 - International Law

Field C, Political theory and methodology

- PSCI 3310 - Political Theory: Socrates to the Eighteenth Century
- PSCI 3320 - Political Theory: Eighteenth Century to the Present
- PSCI 4320 - American Political Theory
- PSCI 4360 - International Ethics
- PSCI 4330 - Topics in Political Theory *

Field D, Public policy

- PSCI 3420 - Bureaucracy and Public Policy
- PSCI 4130 - American Intergovernmental Relations
- PSCI 4450 - Public Policy Analysis
- PSCI 4490 - Topics in Public Policy

Field E, Comparative government and politics

- PSCI 3600-Governments and Politics around the World
- PSCI 3700 - Area Politics *
- PSCI 4630 - The Military in Politics
- PSCI 4640 - Revolution and Political Violence
- PSCI 4650 - Comparative Public Policy
- PSCI 4660 - Democracy and Democratization
- PSCI 4670 - Third World Politics
- PSCI 4700 - Topics in Comparative Politics
- PSCI 4710 - Middle East Politics: Critical Issues
- PSCI 4720 - Ethnicity in World Politics

Field F, International relations

- PSCI 3500 - Introduction to Peace Studies
- 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 4822 - International Conflict Management
- PSCI 4823 - International Criminal Tribunals and War Crimes
- PSCI 4824 - Islam, Democracy and Human Rights
- PSCI 4825 - Conflict and Peacemaking in the Middle East
- PSCI 4830 - American Foreign Policy
- PSCI 4840 - Major Problems of American Foreign Policy
- PSCI 4850 - Critical Issues in World Politics
- PSCI 4860 - International Political Economy


## 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 Arts and 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.

## Grad Track Options

## Political Science, BA with grad track option leading to Political Science, MA

The Department of Political Science offers a grad-track pathway in which the student can complete a Bachelor's Degree in four years, and then earn a master's degree in the fifth year. This is for highly motivated political science majors who have maintained at least a 3.5 GPA. Students must apply to this program by 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.

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 may be suspended.

## 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 1040 - American Government: Laws and Institutions
- PSCI 1050 - American Government: Process and Policies
- PSCI 2300 - Introduction to Political Research
- one theory class
- 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 5340 - Seminar in Political Science Scope and Methods
- PSCI 6320 - Quantitative Political Research Methods

Plus two courses from the following:

- PSCI 5310 - Proseminar in Political Theory
- PSCI 5610 - Proseminar in Comparative Government
- PSCI 6000 - Research Seminar
- PSCI 6900 - Special Problems

See the BA with a major in political science for the remainder of the requirements for the bachelor's degree.

## Minors

## Peace Studies minor

Students wishing to obtain a minor in peace studies must complete a minimum of 18 hours ( 6 advanced), including PSCI 3500 plus at least one course from each of these three areas:

## Determinants of violence

- CJUS 4330 - Domestic and International Terrorism
- CJUS 4350 - Seminar on Violence
- EADP 4090-Terrorism and Emergency Management
- PSCI 4640-Revolution and Political Violence
- PSCI 4821 - International Conflict

Or, when topic is appropriate

- ANTH 4801 - Topics in Physical Anthropology
- ANTH 4701 - Topics in Sociocultural Anthropology
- HIST 4260 - Topics in History
- HIST 4262 - Topics in European History
- HIST 4263 - Topics in African-, Asian- or Latin American History
- PSCI 4700 - Topics in Comparative Politics
- PSCI 4820 - Contemporary International Problems


## Conflict management

- COMM 3320-Communication and Conflict Management
- PACS 4000 - Mediation
- PACS 4050 - Negotiation and Dispute Resolution
- PSCI 4660 - Democracy and Democratization
- PSCI 4822 - International Conflict Management
- PSCI 4823 - International Criminal Tribunals and War Crimes
- PSCI 4825 - Conflict and Peacemaking in the Middle East
- PSCI 4850 - Critical Issues in World Politics


## Or, when topic is appropriate

- HIST 4260 - Topics in History
- PSCI 4700 - Topics in Comparative Politics


## Issues of justice

- ECON 3150-Economics of Discrimination
- HIST 3150 - Historical and Cultural Development of the Mexican-American Community
- HIST 4315 - History of Anti-Semitism from Ancient Times to the Present
- HIST 4390 - The Holocaust, 1933-1945
- HIST 4440 - African-American History and Culture to 1865
- HIST 4450 - African-American History and Culture Since 1865
- HIST 4455 - History of Black Women in America
- HIST 4465 - Women in the United States to 1900
- HIST 4470 - Women in the United States Since 1900
- HIST 4780 - Indian Policy in United States History
- PSCI 4210 - Constitutional Law: Rights and Liberties
- PSCI 4360 - International Ethics
- PSCI 4520 - International Human Rights
- PSCI 4660 - Democracy and Democratization
- PSCI 4720 - Ethnicity in World Politics
- PSCI 4800 - The Politics of International Organization
- PSCI 4810 - International Law
- PSCI 4823 - International Criminal Tribunals and War Crimes
- PSCI 4824 - Islam, Democracy and Human Rights
- SOCI 4540 - Race and Ethnic Minorities


## Or, when topic is appropriate

- HIST 4260 - Topics in History
- HIST 4440 - African-American History and Culture to 1865
- PSCI 4490 - Topics in Public Policy
- PSCI 4820 - Contemporary International Problems
- PSCI 4850 - Critical Issues in World Politics
- PSCI 4330 - Topics in Political Theory


## Remaining 6 hours may be from

Any of the following courses may also be taken to fulfill the remaining 6 hours:

- ANTH 3130-African-American Anthropology
- HIST 4070 - World War II
- HIST 4350 - Europe, 1914-1945
- HIST 4650 - Evolution of Warfare to Napoleon
- HIST 4660 - Evolution of Warfare from Napoleon
- JOUR 4240 - Comparative International Media Systems
- PACS 4060 - Practicum in Mediation and Dispute Resolution
- PSCI 3600-Governments and Politics around the World
- PSCI 3810 - International Relations
- PSCI 4630 - The Military in Politics
- PSCI 4830 - American Foreign Policy
- SOCI 4160 - Developing Societies
- SOCI 4750 - World Population Trends and Problems


## Or, when topic is appropriate

- ANTH 4701 - Topics in Sociocultural Anthropology
- HIST 4260 - Topics in History


## Additional information

Practicums, internships and special problems courses may also apply if approved by the Director of Peace Studies. Interested students should contact Dr. David Mason, Department of Political Science, Wooten Hall, by phone at 940-565-2386, or by e-mail at masontd@unt.edu.

## Political Science minor

A minor in political sciences requires 18 hours:

## Required courses

- PSCI 1040 - American Government: Laws and Institutions
- PSCI 1050-American Government: Process and Policies


## Plus 12 hours

Plus 12 semester hours, including 6 advanced hours.

## Undergraduate Academic Certificates

## Legal studies certificate

[^4]
## Foundations, 3 hours

Choose from:

- PSCI 3200 - The American Legal System
- CJUS 3210 - Judicial and Legal Systems


## Analytical reasoning, 3 hours

Choose from:

- COMM 2140 - Advocating in Public
- COMM 3840 - Argumentation and Debate
- ECON 4550 - Law and Economics
- PHIL 2050 - Introduction to Logic


## Ethics, 3 hours

Choose from:

- BLAW 3430-Legal and Ethical Environment of Business
- CJUS 4250 - Law and Social Problems
- PHIL 3400 - Ethical Theory


## Oral and written advocacy, 3 hours

Choose from:

- COMM 2040 - Public Speaking
- ENGL 3110-Academic Writing in the Humanities


## Applied legal studies, 3 hours

One course from the following:

- BLAW 4450 - Corporation Law
- BLAW 4480-International Business Law
- CJUS 3201-Criminal Law
- COMM 4440-Issues in Freedom of Speech
- PSCI 4200 - Constitutional Law: Powers of Government
- PSCI 4210 - Constitutional Law: Rights and Liberties
- PSCI 4230 - The Constitution and the Rights of Criminal Defendants


## Additional information

For more information, please visit www.cas.unt.edu/advising/prelaw or contact the pre-law advising office at prelaw@unt.edu. If you wish to declare your intent to seek a legal studies certificate, contact the College of Arts and Sciences Student Advising office.

## Peace Studies certificate

Fifteen hours, at least 9 of which must be upper division, including PSCI 3500 - Introduction to Peace Studies and at least one course from each of three areas in the peace studies minor: determinants of violence, conflict resolution and issues of justice. Three hours of internship credit can be accepted.

## Department of Psychology

Main Departmental Office
Terrill Hall, Room 316
Mailing address:
1155 Union Circle \#311280
Denton, TX 76203-5017
940-565-2671
Fax: 940-565-4682
Web site: www.psychology.unt.edu
Undergraduate Advising Office
Terrill Hall, Room 330
940-565-2376
Vicki Campbell, 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 along with an accompanying 18-hour minor from another field provide 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, social work and technical writing. Other areas also are available upon consultation with an advisor.

## Programs of study

Programs offered by the department are listed below. The Bachelor of Science with a major in psychology is primarily for those students planning to enter a graduate program in psychology leading to a PhD degree. It requires the completion of Introduction to Psychological Measurement (PSYC 3630) and Honors Thesis (PSYC 4950).

## 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:

1. Once the psychology major has been applied for and approved a certain GPA must be maintained.

- Psychology, BA - a GPA of 2.5 in all psychology courses must be maintained in order for the student to graduate. If the psychology GPA falls below 2.5, additional psychology courses must be taken and passed with high enough grades to retain a 2.5 GPA to graduate.
- Psychology, BS - a GPA of 3.5 in all psychology courses in order for the student to graduate. If the psychology GPA falls below 3.5, additional psychology courses must be taken and passed with high enough grades to retain a 3.5 GPA to graduate.

2. Psychology majors must earn a grade of C or better for any psychology courses used in the degree.

## Majors

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

At least 35 hours of psychology course work.

## Psychology core, 17 hours

These courses are prerequisites for many of the advanced psychology courses.

- PSYC 1630-General Psychology I
- PSYC 1650-General Psychology II
- PSYC 2317 - Quantitative Methods
- PSYC 2950 - Experimental Methods
- PSYC 4600 - History and Systems Note: PSYC 1630, PSYC 1650, PSYC 2317 and PSYC 2950 are prerequisites for many of the advanced psychology courses.


## Additional advanced courses, 18 hours

Plus 18 additional hours of psychology course work selected with and approved by a faculty advisor.

## Other course requirements

- MATH 1680/MATH 1681 or approved substitution.
- Completion of the university composition requirement with a grade of C or better (recommended before enrolling in advanced psychology course work).


## 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 Arts and 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.

## Graduation requirements

The following are graduation requirements for the psychology major:

1. A GPA of 2.5 in all psychology courses must be maintained in order for the student to graduate with a psychology major. If the psychology GPA falls below 2.5, additional psychology courses must be taken and passed with high enough grades to retain a 2.5 GPA to graduate as a psychology major.
2. Psychology majors must earn a grade of C or better for any psychology courses used in the degree.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

At least 35 hours of psychology course work.

## Psychology core, 23 hours

- PSYC 1630-General Psychology I
- PSYC 1650-General Psychology II
- PSYC 2317 - Quantitative Methods (prerequisite MATH 1680 or MATH 1681)
- PSYC 2950 - Experimental Methods
- PSYC 3630 - Introduction to Psychological Measurement
- PSYC 4600 - History and Systems
- PSYC 4950 - Honors Thesis

Note: PSYC 1630, PSYC 1650, PSYC 2317 and PSYC 2950 are prerequisites for many of the advanced psychology courses.

Additional psychology courses, 12 hours

Plus 12 additional hours of psychology course work selected with and approved by a faculty advisor.

- MATH 1680/MATH 1681 or approved substitution.
- Completion of the university composition requirement with a grade of C or better (recommended before enrolling in advanced psychology course work).


## 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 Arts and 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 3.5 GPA in psychology course work.

## Graduation requirements

The following are graduation requirements for the psychology major:

1. A GPA of 3.5 in all psychology courses must be maintained in order for the student to graduate with a psychology major. If the psychology GPA falls below 3.5, additional psychology courses must be taken and passed with high enough grades to retain a 3.5 GPA to graduate as a psychology major.
2. Psychology majors must earn a grade of C or better for any psychology courses used in the degree.

## Minors

## LGBT Studies minor

A minor in LGBT studies requires 18 hours, including at least 6 advanced hours. Courses across the curriculum address the impact of sexual attitudes and behaviors on history, politics, social arrangements, artistic and literary creation, and conceptions of the self. Students investigate the ways in which human sexuality has been shaped by medical and scientific discourse, economic imperatives, philosophy, religion, law, politics, art, visual culture and literature. Students choose from a multidisciplinary list of approved courses updated annually. For more information, visit www.lgbt.unt.edu. Students interested in this minor should contact Dr. Mark Vosvick, Department of Psychology, Terrill Hall.

## 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 Sociology

Departmental Office
Chilton Hall, Room 300

Mailing address:
1155 Union Circle \#311157
Denton, TX 76203-5017
940-565-2296

Web site: www.unt.edu/soci

Daniel G. Rodeheaver, 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 Master of Arts (MA) and Master of Science (MS), both with majors 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, art, 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, BA

A Bachelor of Arts with a major in sociology provides a well-rounded and comprehensive understanding of social theory and research methods and prepares you for numerous careers in human services and corporations or for an entry-level research job as an interviewer or statistician.

## Degree Requirements

The following requirements must be satisfied for a Bachelor of Arts 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 Arts degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the "College of Arts and Sciences" requirements.

## Major requirements

30 hours in sociology, of which 21 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

- SOCI 1510 - Introduction to Sociology
- SOCI 3200 - Sociological Theory
- SOCI 3260 - Quantitative and Qualitative Research Methods
- SOCI 3280-Quantitative Data Analysis
- SOCI 4990 - Sociology Capstone


## Minor

Recommended but not required.

## Other requirements

- Minimum sociology grade point average of 2.5 is required for graduation.
- A total of 42 hours upper-division work (advanced courses).
- 30-hour residence requirement.


## 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 Academics section of this catalog and the "College of Arts and Sciences" requirements (excluding foreign language).

## Major requirements

36 hours in sociology, of which 24 must be advanced, including the sociology core curriculum ( 18 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

- SOCI 1510-Introduction to Sociology
- SOCI 3200-Sociological Theory
- SOCI 3220 - Quantitative Data Collection
- SOCI 3240-Qualitative Data Collection
- SOCI 3280- Quantitative Data Analysis
- SOCI 4990 - Sociology Capstone

Minor

Recommended but not required.

## Other requirements

- Minimum sociology grade point average of 2.5 is required for graduation.
- A total of 42 hours upper-division work (advanced courses).
- 30-hour residence requirement.


## Minors

## Sociology minor

A minor in sociology requires a minimum of 18 hours, including 6 advanced and SOCI 1510.

## Department of Technical Communication

Main Departmental Office<br>Auditorium Building, Room 317<br>Mail address:<br>1155 Union Circle \#305298<br>Denton, TX 76203-5017<br>940-565-4458<br>Fax: 940-369-8976<br>Undergraduate Advising Office<br>Auditorium Building, Room 105C

## TBA, Chair

## Faculty

Communication practices are rapidly changing due to ongoing advancements in content strategy, social media and technology. The Department of Technical Communication provides a research-centered and practice-oriented learning environment to prepare students for careers in professional and technical communication. At the core of the curriculum, the department provides students real-world experiences through clientbased projects.

The Department of Technical Communication offers a BA and MA in professional and technical communication. Courses are taught by an internationally recognized and award-winning faculty whose research is at the forefront of the field.

The degrees offered by the Department of Technical Communication provide students with a comprehensive grounding in foundational aspects of communication, including writing, editing and research. Additional courses provide students with the opportunity to study specific genres of content creation, advanced evaluation techniques, and various media for the distribution of content. Students also have the opportunity to complete internships in major companies across the U.S. Students have interned with major companies such as Microsoft, Southwest Airlines, Balfour Beatty and Sabre. Those students seeking to enter PhD programs receive the kind of personal attention that results in subsequent placement into PhD programs of the highest caliber.

## Majors

## Professional and Technical Communication, BA

Professional and technical communication is a growing career field because of the expansion of scientific and technical information and the increasing presence of customer service and web-based product support networks. Earning a Bachelor of Arts with a major in professional and technical communication gives you the skills to be competitive in this workforce.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in professional and technical communication.

## 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 Academics section of this catalog and the College of Arts and Sciences requirements.

## Major requirements

Majors must complete 36 hours.

## Required PTC major courses, 24 hours

- ENGL 1310 - College Writing I
or
- TECM 1700 - Introduction to Professional, Science, and Technical Writing
- TECM 2700-Technical Writing
- LING 3060 - Principles of Language Study
- TECM 3100-Commercial Publications for High-Tech Industries
- TECM 3200-Information Design for Electronic Media
- TECM 4180 - Advanced Technical Writing
- TECM 4190- Technical Editing
- TECM 4950 - Senior Capstone Course (must be taken in the final semester)


## Four of the following courses, 12 hours

- TECM 3000-Teaching Technical Communication in the High School
- TECM 3500 - Digital Media for Professional Communication
- TECM 3550 - Content Strategy and Social Media in Technical Communication
- TECM 4100-Writing Grants and Proposals
- TECM 4200-Research Methods for the Practitioner
- TECM 4250-Writing Technical Procedures and Manuals
- TECM 4300- Usability and User Experience in Technical Communication
- TECM 4400 - Advanced Information Design in Technical Communication
- TECM 4700-Writing in the Sciences
- TECM 4800 - Topics in Technical and Professional Communication
- TECM 4920-Cooperative Education in Technical Communication
- LING 4010 - English Language in America
- LING 4020 - Structure of Modern English
- LING 4030 - Acquisition of English as a Second Language


## 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 Arts and Sciences.

## Other requirements

Students must earn a minimum GPA of 2.5 in the 24 hours of required PTC major courses, with a minimum grade of C in all courses counted toward the major. Students must contact the Director of Undergraduate Studies, Auditorium Building, Room 317, to prepare their degree audits.

## Minors

## 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 in technical communication.

## Required courses, 9 hours

- TECM 2700-Technical Writing
- TECM 4180 - Advanced Technical Writing
- TECM 4190- Technical Editing


## Remaining 9 hours

Students must choose an additional 3 courses ( 9 hours) from the list below. At least 2 of these courses must be at the 3000 or 4000 level.

- TECM 1500 - New Media for Your College Career
- TECM 1700 - Introduction to Professional, Science, and Technical Writing
- TECM 3000 - Teaching Technical Communication in the High School
- TECM 3100 - Commercial Publications for High-Tech Industries
- TECM 3200-Information Design for Electronic Media
- TECM 4100-Writing Grants and Proposals
- TECM 4200 - Research Methods for the Practitioner
- TECM 4250-Writing Technical Procedures and Manuals
- TECM 4700 - Writing in the Sciences


## Undergraduate Academic Certificates

Digital Media Studies certificate (TECM)

## Certificate requirements

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 3820- Social Media Perspectives
- MRTS 3360-Social Media Strategies
- TECM 1500-New Media for Your College Career or
- TECM 3500 - Digital Media for Professional Communication


## Electives, 6 hours

Selected from the following courses:

- COMM 3420-Communication and New Technology
- COMM 4320 - Communications and Virtual Gaming
- JOUR 4270 - Strategic Social Media
- MRTS 4475 - Digital Media and Society
- TECM 3200 - Information Design for Electronic Media
- Internship option (TECM 4920, MRTS 4480 or COMM 4800) with departmental approval
- Other courses approved by certificate advisor


## Technical Writing certificate

Students may receive a certificate in technical writing from the Department of Technical Communication by successfully completing the following courses with a grade of B or higher

## Courses

- TECM 2700 - Technical Writing
- TECM 4180-Advanced Technical Writing
- TECM 4190-Technical Editing
- TECM 4100 - Writing Grants and Proposals
or
- TECM 4250- Writing Technical Procedures and Manuals
or
- TECM 4700 - Writing in the Sciences


## Additional information

Contact the Department of Technical Communication for more information.

## Department of World Languages, Literatures and Cultures

## Main Departmental Office

Language Building, Room 101

Mailing address:
1155 Union Circle \#311127
Denton, TX 76203-5017
940-565-2404
Fax: 940-565-2581

Web site: www.worldlanguages.unt.edu

## Marijn S. Kaplan, World Languages Chair <br> Samuel Manickam, Spanish 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 the student to gain, through the use of these tools, a knowledge of the country 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 Arts and 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, Spanish and German, 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 foreign language or who has acquired language skills will be required to take an examination to determine appropriate enrollment. 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.

## Study abroad program in Germany

Students majoring, minoring or just wanting to complete their foreign language requirement abroad can participate in a faculty-led program and study in Freiburg, Germany: Five-week summer session.

## Study abroad programs in Mexico and Spain

Students majoring, minoring or just wanting to complete their foreign language requirement abroad can participate in any of these three facultyled programs:

1. Study in Puebla, Mexico: Five week summer session.
2. Study in Valencia, Spain: Five week summer session at AIP Institute.
3. Study in San José, Costa Rica: Five-week summer session at Veritas University.
4. Study in Buenos Aires, Argentina: Three-week Maymester Session

Contact the departmental office for additional information.

## Bilingual Education concentration

Interested students should consult with the Department of Teacher Education and Administration in the College of Education for further information.

Unless otherwise noted, all program courses in the Department of World Languages, Literatures and Cultures are taught in the specific language of the corresponding program.

## 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.

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 Academics section of this catalog and the College of Arts and 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
- FREN 3040 - France Today
or
- FREN 3045 - The Francophone World
or
- FREN 3350 - The French: Myths and Realities
- FREN 3050 - Advanced Readings in French
or
- FREN 3055 - Image of the Artist in France Throughout the Ages
- FREN 3060 - French Phonetics and Pronunciation or
- FREN 3065 - Advanced French Conversation
- FREN 3070 - Advanced French Grammar and Composition or
- FREN 3075 - Writing in French: Style and Technique
- Plus 15 semester hours of advanced work, including 9 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, English, history, business, hospitality management, economics or computer science.

## 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 Arts and 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.


## German, BA

Programs offered by the Department of World Languages, Literatures and Cultures provide insight into world cultures and languages. You can perfect your German with a Bachelor of Arts.

## Degree Requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in German.

## 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 "General University Requirements" in the Academics section of the catalog and the College of Arts and Sciences requirements.

## Major requirements

## 39 hours of German, including

- GERM 1010 - Elementary German
- GERM 1020 - Elementary German
- GERM 2040 - Intermediate German
- GERM 2050 - Intermediate German
- Plus 27 semester hours of advanced work, including 9 hours in 4000-level courses or above

Placement or credit my examination may be used to satisfy

GERM 1010, GERM 1020, GERM 2040, GERM 2050
Other course requirements

None.

## Suggested minors for the BA with a major in German

Students who wish to earn a minor are encouraged to choose a second foreign language, English, history, business, hospitality management, economics or computer science.

## 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 Arts and Sciences.

## Other requirements

- Students majoring in German 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 German course work is required for graduation.


## Spanish, BA

The Spanish section provides insight into world cultures and languages. While perfecting your Spanish, you can consider teacher certification, a certificate in professional Spanish 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 Academics section of this catalog and the College of Arts and Sciences 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:

## Required grammar and literature courses, 6 hours

- SPAN 3090 - Advanced Spanish Grammar I
- SPAN 3110 - Introduction to Hispanic Literature (this course is also a prerequisite for all 4000-level Spanish literature courses)


## Composition and oral practice, 3 hours

## 3 hours selected from

- SPAN 3060 - Advanced Spanish Composition and Oral Practice
- SPAN 3080 - Advanced Spanish Composition and Oral Practice for Bilinguals * (course substitutions require departmental consent)

Note
*The SPAN 3080 option is available only to native or near-native Spanish speakers who qualify according to results on the departmental proficiency test or by departmental consent.

Hispanic culture (3000 level), 3 hours

3 hours of a 3000-level Hispanic culture course:

- SPAN 3140-Mexican Civilization
- SPAN 3150 - Spanish Culture and Civilization
- SPAN 3160 - Latin American Culture and Civilization
- SPAN 3180 - Latin American Culture Through Film

Hispanic literature survey (4000 level), 6 hours

6 hours of 4000-level Hispanic literature survey courses:

- SPAN 4310 - Survey of Spanish Literature
- SPAN 4320 - Survey of Spanish Literature
- SPAN 4360 - Survey of Spanish-American Literature
- SPAN 4370 - Survey of Spanish-American Literature


## Advanced Spanish courses, 9 hours

9 hours of advanced Spanish courses (3000-and 4000-level courses). At least 6 hours must be at the 4000 level.

## 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 Arts and 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.


## Minors

## Arabic minor

A minor in Arabic consists of a minimum of 18 semester hours in Arabic, including 6 advanced hours. Demonstration of proficiency may be substituted for credit in courses equivalent to ARBC 1010 through ARBC 2050. A minimum grade of C is required for a course to count toward the minor.

## Chinese minor

A minor in Chinese consists of a minimum of 18 semester hours in Chinese, including 6 advanced hours. Demonstration of proficiency may be substituted for credit in courses equivalent to CHIN 1010 through CHIN 2050. A minimum grade of C is required for a course to count toward the minor.

## French minor

A minor in French consists of a minimum of 21 semester hours in French, including 9 advanced hours, 3 of which must be at the 4000 level. 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.

## Italian minor

A minor in Italian consists of a minimum of 18 semester hours in Italian, including 6 advanced hours. Demonstration of proficiency may be substituted for credit in courses equivalent to ITAL 1010 through ITAL 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.

## Latin minor

A minor in Latin consists of a minimum of 18 semester hours in Latin, including 6 advanced hours. Demonstration of proficiency may be substituted for credit in courses equivalent to LATI 1010 through LATI 2050. A minimum grade of C is required for a course to count toward the minor.

## Russian minor

A minor in Russian consists of a minimum of 18 semester hours in Russian, including 6 advanced hours. Demonstration of proficiency may be substituted for credit in courses equivalent to RUSS 1010 through RUSS 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 18-21 semester hours in Spanish, including 9 advanced hours. Demonstration of proficiency may be substituted for credit in courses equivalent to SPAN 1010 through SPAN 2050. A minimum grade of C is required for a course to count toward the minor.

## All Level Teacher Certification

## French teacher certification

The College of Arts and 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 3040 - France Today
or
- FREN 3045 - The Francophone World
or
- FREN 3350 - The French: Myths and Realities
- FREN 3050 - Advanced Readings in French
or
- FREN 3055 - Image of the Artist in France Throughout the Ages
- FREN 3060 - French Phonetics and Pronunciation
or
- FREN 3065 - Advanced French Conversation
- FREN 3070 - Advanced French Grammar and Composition
or
- FREN 3075 - Writing in French: Style and Technique
- FREN 4150 - Foreign Language Instruction and Assessment
- 6 hours of 4000 -level French courses
- 6 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); or Official ACTFL Advanced Level Check


## Education courses, 21 hours

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 4118 - Student Teaching in the Secondary School
- EDSE 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), www.tea.state.tx.us.

## German teacher certification

The College of Arts and 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 Composition and Oral Practice or
- GERM 3070 - Advanced German Composition and Oral Practice or
- GERM 3020 - Topics in German Studies (when taught as "Advanced 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); or Official ACTFL Advance Level Check


## Education courses, 21 hours

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830 - Teaching/Learning Process and Evaluation
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 4118 - Student Teaching in the Secondary School
- EDSE 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), www.tea.state.tx.us.

## Spanish teacher certification

The College of Arts and 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 3060 - Advanced Spanish Composition and Oral Practice *
- SPAN 3090 - Advanced Spanish Grammar I
- SPAN 3110 - Introduction to Hispanic Literature
- SPAN 4150 - Foreign Language Instruction and Assessment
- SPAN 4210 - Spanish Phonetics and Pronunciation
or
- SPAN 4260 - Linguistic Structures of Spanish
- 3 hours of 3000-level SPAN culture
- 6 hours of 4000 -level SPAN literature
- 3 hours of any advanced SPAN course
- 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); or Official ACTFL Advanced Level Check.


## Note

*SPAN 3080 may substitute for SPAN 3060.

## Education courses, 21 hours

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830 - Teaching/Learning Process and Evaluation
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 4118 - Student Teaching in the Secondary School
- EDSE 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), www.tea.state.tx.us.

## Undergraduate Academic Certificates

## Japanese Language certificate

## Required courses

- JAPN 3020 - Advanced Japanese I
- JAPN 3030 - Advanced Japanese II
- JAPN 4020 - Advanced Japanese III
- JAPN 4030 - Advanced Japanese IV


## Professional French certificate

This undergraduate academic certificate requires 12 hours of advanced French, including:

## Professional French, 6 hours

Two courses in professional French chosen from:

- FREN 3090 - Professional French
- FREN 4080 - Business French
- FREN 4085 - French Media and Current Events
- FREN 4090 - French for Tourism
- FREN 4400 - French Linguistics and Translation


## 6 additional advanced hours

Two other French courses at the 3000 or 4000 level.

## Professional Spanish certificate

This undergraduate academic certificate requires 12 hours of advanced Spanish, including:

## Professional Spanish, 6 hours

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 3570 - Spanish in the Bilingual Classroom
- SPAN 4040 - Spanish Writing for the Mass Media Professions
- SPAN 4080 - Business Spanish


## 6 additional advanced hours

Two other Spanish courses at the 3000 or 4000 level.

# Department of Aerospace Studies 

Departmental Office<br>AFROTC Building, Room 123<br>AFROTC-Det 835<br>Mailing address:<br>1155 Union Circle \#305400<br>Denton, TX 76203-5017<br>940-565-2074<br>Web site: afrotc.unt.edu

## Lt Col Jody A. Addison, Chair

## Faculty

Addison, Shirley, Snodgrass

The Air Force Reserve Office Training Corps (ROTC) 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 Encampment; and the Professional Officer Course (last two years). Students enroll in AERO classes at the same time and in the same manner as for 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 System. This system 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 a four-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 participate in weekly physical training.

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 academic 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 system described above.

## Leadership Laboratory

Cadets must take a required Leadership Laboratory (LLAB) approximately two hours 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 ceremony, 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 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 enter into 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.

## Eligibility requirements

Air Force ROTC is open to male and female UNT students completing any undergraduate academic degree.

## 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 30 years if programmed for non-flying training.
POC entry requirements include:
5. requirements $1-4$ above;
6. U.S. citizenship;
7. at least a 2.5 cumulative grade point average;
8. at least two undergraduate academic years remaining at UNT;
9. passing score on the Air Force Physical Fitness Test;
10. pass Air Force medical examination; and
11. completion of Summer Field Training encampment.

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.

## Credit for University Core Curriculum

With written approval from the student's 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 and recitation hours. The POC curriculum includes 3000- and 4000-level AERO lecture courses with associated lab and recitation hours.

## Minors

## Aerospace Studies minor

## Requirements

A minor in aerospace studies requires 18 hours, including:

- Two semesters of GMC or applicable cooperative education class approved by department chair
- AERO 3310 - Leadership Studies
- AERO 3320 - Leadership Studies
- AERO 4310-National Security Affairs/Preparation for Active Duty
- AERO 4320 - National Security Affairs/Preparation for Active Duty


## Department of Military Science

Departmental Office
Wooten Hall, Suite 325
Army ROTC
Mailing address:
1155 Union Circle \#310977
Denton, TX 76203-5017
940-369-8011

Web site: www.armyrotc.unt.edu

## Capt Harold M. Burke, Chair

## Faculty

Burke, Figueredo, Lindsey, Thompson, Widener
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 (APFT 270 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. Juniors receive $\$ 450$ per month and seniors receive $\$ 500$ 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 four-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 the cadets in the three- and four-year program. 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 1050 with prior written approval from the student's major department.

## Leadership Laboratory

A required corresponding level leadership laboratory is taken an average of two 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 at least six months of active 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, three-year and two-year programs, provide full tuition, fees, 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, and extracurricular and athletic activities. For information, contact the department office.

## Minors

## 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 (see program description).
- 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).

## Leader development and assessment

Successfully complete the Army's Leader Development and Assessment course 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 Arts and Sciences
Mailing address:
1155 Union Circle \#305189
Denton, TX 76203-5017
940-565-2051

Jean B. Schaake, Associate Dean

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.

## College of Business

Main Office
Business Leadership Building, Room 110

Mailing address:
1155 Union Circle \#311160
Denton, TX 76203-5017
940-565-2110
Fax: 940-565-4640

Web site: www.cob.unt.edu

## Marilyn K. Wiley, Dean

Audhesh Paswan, Academic Associate Dean
Terry Pohlen, Associate Dean for Operations and Research
Tracy Dietz, Academic Associate Dean for Assessment

## 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.

## Academic advising

Information concerning academic matters is available in the Academic Advising Office of the College of Business. For undecided majors, freshmen, transfer students and those who have not completed the pre-business requirements, academic advising is available throughout the year in the Business Leadership Building, Room 110.

Advisors in the Academic Advising Office help students select programs and courses, prepare degree plans, obtain advising clearance forms, change majors, and understand policies and procedures. They also apply transfer credit and monitor graduation requirements.

Undergraduate faculty advisors in the departments must be consulted concerning any changes in the professional or supporting fields requirements.

## 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:

## College of Business

- BBA - Business Integrated Studies
- Business Foundations Minor
- International Business Certificate

Department of Accounting

- BBA - Accounting
- $\quad$ BS - Accounting (BS/MS - combined degree programs)


## Department of Information Technology and Decision Sciences

- BBA - Decision Sciences
- BS - Business Computer Information Systems

Department of Finance, Insurance, Real Estate and Law

- BBA - Economics
- BBA - Finance
- BBA - Risk Insurance and Financial Services
- BBA - Real Estate
- BBA - Real Estate with a concentration in residential property management


## Department of Management

- BBA - Entrepreneurship
- BBA - Operations and Supply Chain Management
- BBA — Organizational Behavior and Human Resource Management

Department of Marketing and Logistics

- BBA - Marketing
- BBA — Marketing with a concentration in professional selling
- BS - Aviation Logistics
- BS - Logistics and Supply Chain Management


## 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.

## 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.

## College of Business tiered academic progression plan and academic standards

## Undergraduate tiered academic progression plan and admission policy

The College of Business undergraduate program consists of a tiered academic progression plan for all students entering the College of Business, whether for a BBA or a BS degree. The plan consists of the following three tiers:

- Tier One: Pre-business (PBUS)
- $\quad$ Tier Two: Business Undergraduate (BUND)
- Tier Three: Declared major (professional field) within business

In order to progress through the business degree program (BBA or BS), students must advance through the tiered academic progression plan as follows:

Tier One: Pre-business (PBUS)

1. All students entering the College of Business, whether for a BBA or BS degree, are admitted under pre-business (PBUS), including new, transfer and continuing students. PBUS students must meet the following continuation requirements each semester: (a) meet with an advisor in CoB Undergraduate advising (CoBUA) and, (b) participate in at least two developmental activities as directed by CoBUA, such as enrollment in BUSI 1340, career development or learning workshops, learning communities, etc.
2. In order to progress to Tier Two (BUND), PBUS students must have a 2.7 UNT cumulative GPA and completethree of the following pre-business prerequisite courses with a grade of C or higher: college-level math (3 hours), ACCT 2010, ACCT 2020, ECON 1100, ECON 1110, DSCI 2710.
3. Once the above eligibility requirements are met, students can apply online or meet with an academic advisor for admission into Tier Two (BUND). First semester transfer students who have completed three of the above pre-business courses (or equivalent) and have a 2.7 cumulative transfer GPA can apply for BUND status with CoBUA at the time of new student orientation, or within their first semester at UNT.
4. PBUS students are restricted to lower-level $(1000 / 2000)$ business courses.

## Tier Two: Business Undergraduate (BUND)

1. Tier Two students who have met the requirements of Tier One and have applied to Tier Two status (BUND) must have a 2.7 UNT cumulative GPA and complete the following: (a) at least 45 semester hours, and (b) the following pre-business courses (or equivalents) with a grade of C or higher: ENGL 1310; ENGL 1320 or TECM 2700 (TECM 2700 required for BS/MS accounting); MATH 1190 or MATH 1710; ECON 1100 and ECON 1110;ACCT 2010 and ACCT 2020; BCIS 2610; and DSCI 2710.
2. Once above eligibility requirements are met, BUND students must meet with an advisor to file for an official degree plan and move to Tier Three.
3. Tier Two (BUND) students are restricted to lower-level (1000/2000) business courses.

## Tier Three: Official BBA/BS declared major with professional field

1. Students at Tier Three 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). First semester transfer students who have completed all of the pre-business prerequisites (or equivalents) and have a 2.7 cumulative transfer GPA are eligible to apply for Tier Three status.
2. Students in Tier Three are strongly encouraged to meet with their departmental advisor when possible. Tier Three students must meet degree and graduation requirements as outlined under College of Business Academic Standards.
3. Tier Three students must apply for graduation by the deadline posted in the Academic Calendar.

## College of Business academic standards

1. Students must complete the tiered academic progression plan as outlined above.
2. 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.
3. Degree progress and major dismissal:

O 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.
4. Academic requirements for graduation with a BBA or BS from the College of Business include:

O a minimum of 2.7 GPA in the professional and supporting field courses
O a minimum of 2.0 UNT cumulative GPA (all courses completed at UNT)
O a minimum 2.0 overall GPA (combined UNT and transfer GPA)
5. 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 offerings 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.
Graduate course descriptions are found in the Graduate Catalog.
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.

Courses are offered on an availability basis as service courses to non-business majors who meet the individual course prerequisites.

All Courses of Instruction are located in Course descriptions.

## 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.

## College of Business Information and Learning Technologies Center

## Cengiz Capan, Associate Dean

The Information and Learning Technologies Center of the College of Business is housed in the Business Leadership Building and comprises the Associate Dean for Technology and Operations, an IT manager, a lab manager, three IT specialists and an administrative coordinator. A technical support team of part-time student assistants aids the full-time staff in installations, troubleshooting, web development, and working with faculty and staff when problems or questions arise concerning software and/or hardware. More than 500 Dell OptiPlex Desktop systems in the Business Leadership Building are networked together with a multi-node, high-availability blade enclosures using multi-core dual and quad Xeon blade servers. Each server node has at least 64 to a max of 256 gigabytes of memory and 36 terabytes of available storage in an external storage area network (SAN) disk array. Each of the 500 desktops systems is configured with a Dual Quad or Dual Six core CPU, 500 gigabyte hard drive, 8 to 16 gigabyte memory, 22-inch or 24-inch widescreen flat-panel LCD monitor, DVD-RW drive, USB 3.0 connections, and gigabit network interfaces.

The College of Business provides 200+ of the above systems in a combination of the General Access/Business lab, Security lab, Behavioral lab or Trading lab conveniently located on Level 1 or 2 of the Business Leadership Building. The General Access/Business lab located on the 1st floor is open more than 100 hours per week and staffed by $14+$ student lab monitors. All other labs are access-as-needed for the specialized College of Business classes.

The General Access/Business lab consists of more than 123 desktop systems and is designed for the general business student who is required to use computers, but may also be used by all UNT students. As an extension of the General Access Lab, a number of public access kiosks are provided on Level 0 of the Business Leadership Building for walk-up e-mail access and general web browsing. The General Access/Business lab includes 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. For team and group work, students can use their own notebook computers or check out mobile thin clients to take to the Biz Cafe adjacent to the labs. There are 7 study rooms available by reservation, 6 open access team rooms or informal seating areas around the Business Leadership Building. The College of Business' virtual desktop lab is open to all College of Business majors, this environment provides remote access to all major College of Business applications from anywhere. There are also several "Virtual Classrooms" utilizing the same virtual desktop environment for hands-on instruction when needed.

## Majors

## Bachelor of Business Administration

The College of Business offers a Bachelor of Business Administration degree with a professional field in business integrated studies.

The following requirements must be satisfied for a Bachelor of Business Administration.

## 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 Business Administration degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Business requirements.

## Pre-business requirements

## University Core Curriculum requirements

See "University Core Curriculum Requirements" in the Academics section of this catalog.

## Required courses

- ECON 1100 - Principles of Microeconomics (with a grade of C or higher)
- ECON 1110 - Principles of Macroeconomics (with a grade of C or higher)
- MATH 1190 - Business Calculus (with a grade of C or higher)
or
- MATH 1710-Calculus I (with a grade of C or higher)
- COMM 1010-Introduction to Communication *
or
- TECM 2700-Technical Writing *
- BCIS 2610 - Introduction to Computers in Business ** (with a grade of C or higher)
- 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)
- DSCI 2710 - Data Analysis with Spreadsheets ** (with a grade of C or higher)


## Notes

*Communication requirements for the degree require one of the following combinations:
a) ENGL 1310, ENGL 1320 or TECM 2700 (preferred), and COMM 1010

OR
b) ENGL 1310, ENGL 1320 and TECM 2700
**BCIS 2610, ACCT 2010, ACCT 2020 and DSCI 2710 are part of both the pre-business requirements and the business foundation requirements.

## 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 (see individual College of Business departmental sections). Students are responsible for completing the total minimum hours required for the degree.

## Admission to program

See the tiered academic progress plan and academic standards section of the College of Business section of this catalog.

## Business foundation requirements

[^5]- MGMT 3330-Communicating in Business
or
- MKTG 3010 - Professional Selling
or
- BCIS 3615 - Visual Display of Business Information
- BLAW 3430-Legal and Ethical Environment of Business
- BCIS 3610 - Basic Information Systems
- MKTG 3650 - Foundations of Marketing Practice
- DSCI 3710 - Business Statistics with Spreadsheets
- FINA 3770 - Finance
- MGMT 3720-Organizational Behavior
- BUSI 4940 - Business Policy


## Note

BUSI 4940. (All business foundation courses must be completed with a grade of C or better prior to taking this course [see list above]; senior standing required; must be taken during the last term/semester of course work.)

## Professional field requirements

See individual College of Business departmental sections.

## Supporting field

See individual College of Business departmental sections.

## Electives

See individual College of Business departmental sections. 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 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.
- To graduate with a Bachelor of Business Administration degree, students must earn a 2.7 minimum GPA in the professional field and have a 2.0 GPA in all courses completed at UNT.
- 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.


## Professional fields for the BBA degree

The terms professional field (BBA degree programs) and major (BS degree programs) are used to designate the primary area of study.

For specific course and professional field/major requirements, see the respective departmental sections.

## 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 College of Business offers a Bachelor of Business Administration degree with a professional field in business integrated studies. Students pursuing the professional field in business integrated studies 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. Some flexibility is allowed to accommodate the student's career objectives.

General requirements for the BBA are listed in the "University Core Curriculum" and the "University Core Curriculum" in the Academics section and under "Bachelor of Business Administration" in the College of Business.

In addition to the University Core Curriculum, Pre-Business and Business Foundation requirements, students must complete the following professional and supporting field courses. 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, 30 hours

- 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)


## Additional requirements

- The above 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, LSCM 3960, MGMT 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


## Academic standards

Refer to "College of Business Academic Standards" in the College of Business section and "Bachelor of Business Administration" for General Degree Requirements.

## 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 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)
- MKTG 3650 - Foundations of Marketing Practice
- MGMT 3720 - Organizational Behavior or
- MGMT 3820 - Management Concepts
- FINA 3770 - Finance
- 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. Required courses include:

- ACCT 2010-Accounting Principles I (Financial Accounting)
- ACCT 2020 - Accounting Principles II (Managerial Accounting)


## Plus four courses chosen from

- BCIS 3610 - Basic Information Systems
- DSCI 3710 - Business Statistics with Spreadsheets
- BLAW 3430-Legal and Ethical Environment of Business
- FINA 3770 - Finance
- MGMT 3830-Operations Management
- MKTG 3650 - Foundations of Marketing Practice

Note

BCIS 3610, DSCI 3710 and MGMT 3830 have prerequisites not included in the minor.

## Undergraduate Academic Certificates

## International Business certificate

Undergraduate students enrolled in the College of Business may document their training in international business by obtaining a certificate in international business.

Students must complete 12 semester hours of organized business courses as specified in Part 1 below and must present evidence of proficiency in a foreign language as specified in Part 2.

Part 1, International core, 12 hours

- ACCT 4420 - International Accounting
- BLAW 4480 - International Business Law
- 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


## Note

A course taken through a College of Business-sponsored study abroad program may substitute for up to 3 hours of the international core.

Students may be able to satisfy the international core within the course requirements of a concentration by using these international core courses as electives, subject to approval by the academic advisor. Thus, international core courses completed for the certificate need not necessarily increase the total hours required for graduation.

## Part 2, Foreign language requirement

Students must present evidence of minimum proficiency in a foreign language. This requirement may be satisfied in either of these ways:

1. Completing formal foreign language study through the level of LANG 1020 or its equivalent.
2. Submitting evidence of foreign language proficiency through the level of LANG 1020. For example, students may document proficiency with results from a foreign language course above the level of LANG 1020 or with the College Level Examination Program (CLEP) subject examinations. These examinations are administered by the College Board.
Courses are available in Business French, German and Spanish, and students may also earn a Certificate in Professional French or Certificate in Professional Spanish. For more information, visit the Department of World Languages, Literatures and Cultures page in this catalog.

## Requirements

## College of Business Degree Requirements

## 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.

## College of Business tiered academic progression plan and academic standards

## Undergraduate tiered academic progression plan and admission policy

The College of Business undergraduate program consists of a tiered academic progression plan for all students entering the College of Business, whether for a BBA or a BS degree. The plan consists of the following three tiers:

- Tier One: Pre-business (PBUS)
- Tier Two: Business Undergraduate (BUND)
- Tier Three: Declared major (professional field) within business

In order to progress through the business degree program (BBA or BS), students must advance through the tiered academic progression plan as follows:

1. All students entering the College of Business, whether for a BBA or BS degree, are admitted under pre-business (PBUS), including new, transfer and continuing students. PBUS students must meet the following continuation requirements each semester: (a) meet with an advisor in CoB Undergraduate advising (CoBUA) and, (b) participate in at least two developmental activities as directed by CoBUA, such as enrollment in BUSI 1340, career development or learning workshops, learning communities, etc.
2. In order to progress to Tier Two (BUND), PBUS students must have a 2.7 UNT cumulative GPA and completethree of the following pre-business prerequisite courses with a grade of C or higher: college-level math (3 hours), ACCT 2010, ACCT 2020, ECON 1100, ECON 1110, DSCI 2710.
3. Once the above eligibility requirements are met, students can apply online or meet with an academic advisor for admission into Tier Two (BUND). First semester transfer students who have completed three of the above pre-business courses (or equivalent) and have a 2.7 cumulative transfer GPA can apply for BUND status with CoBUA at the time of new student orientation, or within their first semester at UNT
4. PBUS students are restricted to lower-level (1000/2000) business courses

## Tier Two: Business Undergraduate (BUND)

1. Tier Two students who have met the requirements of Tier One and have applied to Tier Two status (BUND) must have a 2.7 UNT cumulative GPA and complete the following: (a) at least 45 semester hours, and (b) the following pre-business courses (or equivalents) with a grade of C or higher: ENGL 1310; ENGL 1320 or TECM 2700 (TECM 2700 required for BS/MS accounting); MATH 1190 or MATH 1710; ECON 1100 and ECON 1110;ACCT 2010 and ACCT 2020; BCIS 2610; and DSCI 2710.
2. Once above eligibility requirements are met, BUND students must meet with an advisor to file for an official degree plan and move to Tier Three.
3. Tier Two (BUND) students are restricted to lower-level (1000/2000) business courses.

## Tier Three: Official BBA/BS declared major with professional field

1. Students at Tier Three 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). First semester transfer students who have completed all of the pre-business prerequisites (or equivalents) and have a 2.7 cumulative transfer GPA are eligible to apply for Tier Three status.
2. Students in Tier Three are strongly encouraged to meet with their departmental advisor when possible. Tier Three students must meet degree and graduation requirements as outlined under College of Business Academic Standards.
3. Tier Three students must apply for graduation by the deadline posted in the Academic Calendar.

## College of Business academic standards

1. Students must complete the tiered academic progression plan as outlined above.
2. 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.
3. Degree progress and major dismissal:

0 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.
4. Academic requirements for graduation with a BBA or BS from the College of Business include:

O a minimum of 2.7 GPA in the professional and supporting field courses
O a minimum of 2.0 UNT cumulative GPA (all courses completed at UNT)
O a minimum 2.0 overall GPA (combined UNT and transfer GPA)
5. 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 offerings 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.

Graduate course descriptions are found in the Graduate Catalog.

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.

Courses are offered on an availability basis as service courses to non-business majors who meet the individual course prerequisites.
All Courses of Instruction are located in Course descriptions.

## Department of Accounting

Main Office<br>Business Leadership Building, Room 213<br>Mailing address:<br>1155 Union Circle \#305219<br>Denton, TX 76203-5017<br>940-565-3080<br>Fax: 940-565-4234<br>Student Advising Office<br>Business Leadership Building, Suite 110<br>940-369-8978<br>Web site: www.cob.unt.edu/acct

## George W. Krull, Jr., Interim Chair

## Faculty

## Mission in brief

The mission of the professional programs in accounting at the University of North Texas is to prepare a diverse student body for careers in industry, public accounting and the nonprofit sector.

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 practiceoriented 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" and the "University Core Curriculum Requirements" in the Academics section and under "Bachelor of Business Administration" in the College of Business section.

## Professional field in Accounting, 19 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 4300 - Federal Income Taxation
- ACCT 4400 - Auditing — Professional Responsibilities

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, 12 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

- MGMT 4660 - International Management Perspectives
- MKTG 4280-Global Marketing Issues and Practice
- FINA 4500 - International Finance
- BLAW 4480-International Business Law


## Business computer information systems

- BCIS 4660 - Introduction to Data Warehousing
- BCIS 4690 - Information Technology Management
- BCIS 4670 - Continuing Seminar in Computer-Based Information Systems
- MGMT 4470 - Leadership
- LSCM 4540 - Logistics Application of Enterprise Resource Planning Systems
- FINA 4200 - Investments
- FINA 4210 - Introduction to Derivatives


## Advanced economics

## Creation of goods and services

## Choose from:

- DSCI 3870 - Management Science
- LSCM 3960 - Logistics and Supply Chain Management
- MGMT 3830-Operations Management


## 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 with IMAPP concentrations, BS and MS

The combined Bachelor of Science with a major in accounting and Master of Science with a major in accounting 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 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. The Integrated Masters of Accounting Professional Program (IMAPP) concentration includes additional degree requirements (e.g. higher GPA and mandatory internship).

## 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.

Students seeking admission who already hold a baccalaureate or higher degree should see the Graduate Catalog for information regarding the one-year (36-hour) Master of Science with a major in accounting.

The final decision regarding admission to the Master of Science with a major in accounting program rests with the Department of Accounting.

## 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 accounting.

## Hours required and general/college requirements

## Business foundation requirements

See "Professional program" below for requirements.

## Professional field requirements

See "Professional program" (undergraduate/graduate accounting courses) below for requirements.

## Other course requirements

- Completion of at least 36 semester hours of graduate work.
- At least 30 semester hours in 5000-level accounting courses at UNT.


## Electives

See individual degree plan.

## Other requirements for students seeking an IMAPP BS/MS concentration

- An overall undergraduate UNT GPA of 3.3
- A GPA of 3.25 for both the first 9 graduate semester credit hours and first full-time semester taken at UNT after admission to the Toulouse Graduate School
- A minimum cumulative graduate GPA of 3.5 and continuous enrollment for all subsequent semesters


## Preprofessional program

## University Core Curriculum requirements

See "University Core Curriculum" as listed in the Academics section of this catalog.

## Pre-business requirements

To enroll in upper-division courses in the College of Business, the student must have completed at least 45 hours of the pre-business program requirements, as listed below, and have a minimum 2.7 overall UNT grade point average. First-term/semester transfer students who have completed at least 45 hours of the pre-business program requirements at another institution must have a minimum 2.7 overall GPA on all transfer work accepted by UNT to be admitted to the Bachelor of Science program and to enroll in upper-division courses. All of the following courses must be complete with a grade of C or higher.

- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- MATH 1190 - Business Calculus or
- MATH 1710 - Calculus I
- TECM 2700 - Technical Writing


## Note

Some of these requirements may be taken as part of the University Core Curriculum requirements.

## Lower-level business foundation 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


## 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.

## Professional 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
or
- BCIS 3620-Mainframe Concepts
- 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, 15 hours

- Advanced economics, 6 hours
- Approved information systems elective, 3 hours
- Elective, 3 hours: BCIS, production management, or operations research
- MGMT 3330-Communicating in Business


## Undergraduate accounting courses, 19 hours

- ACCT 3110-Intermediate Accounting I
- ACCT 3120 - Intermediate Accounting II
- ACCT 3270-Cost Accounting
- ACCT 3405-Professional Development
- ACCT 4100 - Accounting Systems
- ACCT 4300 - Federal Income Taxation
- ACCT 4400 - Auditing - Professional Responsibilities

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, 36 hours

The Master of Science with a major in accounting and concentration in IMAPP audit or the Master of Science with a major in accounting and concentration in IMAPP management and entrepreneurial requires 36 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 114 semester hours is completed. As soon as the test results are available, the student should contact the College of Business Graduate Programs Office regarding application to the graduate school.

The 36-hour program varies with the concentration chosen; however, a minimum of 30 hours of 5000-level accounting courses must be taken. Requirements include the following:

- ACCT 5110
- ACCT 5120
- ACCT 5200
- ACCT 5760
- ACCT5800
- BLAW 5400
- approved electives (chosen in consultation with the accounting advisor)

The IMAPP audit concentration includes additional required accounting courses.

Detailed information on requirements of the concentration is available from the College of Business Graduate Programs Office.

## 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 (GPA of 3.25 for the IMAPP concentrations under the accounting and taxation majors) 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 (36-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 114 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 Academics section of this catalog, fulfillment of degree requirements for the Master of Science as specified below, and the 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 36 semester hours of graduate work (at least 36 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. For the IMAPP program, a GPA of 3.25 is required for all undergraduate work.
- IMAPP students must maintain a GPA of 3.25 at the completion of their first full-time graduate semester (or nine semester credit hours).
- After 9 graduate semester credit hours, an overall GPA of 3.0 (IMAPP GPA 3.5) 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

To enroll in upper-division courses in the College of Business, the student must have completed at least 45 hours of the pre-business program requirements, as listed below, and have a minimum 2.7 overall UNT grade point average. First-term/semester transfer students who have completed at least 45 hours of the pre-business program requirements at another institution must have a minimum 2.7 overall GPA on all transfer
work accepted by UNT to be admitted to the Bachelor of Science program and to enroll in upper-division courses. All of the following courses must be completed with a grade of C or higher.

- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- MATH 1190 - Business Calculus or
- MATH 1710-Calculus
- TECM 2700 - Technical Writing


## Note

Some of these requirements may be taken as part of the University Core Curriculum requirements.

## Lower-level business foundation 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


## 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 or
- BCIS 3620-Mainframe Concepts
- FINA 3770 - Finance
- DSCI 3710 - Business Statistics with Spreadsheets
- MGMT 3720-Organizational Behavior
- MKTG 3650 - Foundations of Marketing Practice
- BLAW 3430-Legal and Ethical Environment of Business


## Other courses, 15 hours

- Advanced Economics, 6 hours
- Approved Information Systems elective, 3 hours
- Elective, 3 hours: BCIS, Production MGMT, or Operations Research
- MGMT 3330-Communicating in Business


## Undergraduate accounting courses, 19 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 4300 - Federal Income Taxation
- ACCT 4400 - Auditing - Professional Responsibilities

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, 36 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 36 hours of accounting (excluding ACCT 5800) 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 114 semester hours is completed. As soon as the test results are available, the student should contact the College of Business Graduate Programs Office regarding application to the graduate school.

The 36 -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:

- ACCT 5110, Fundamentals of Accounting Research (for the MS with a major in accounting) or ACCT 5310, Tax Research and Administrative Procedure (for the MS with a major in taxation)
- ACCT 5120, Using Information Systems in Accounting
- ACCT 5760, Accounting, Business Analysis, and Valuation (for the MS with a major in accounting) or ACCT 5360, Advanced Topics in Federal Taxation (for the MS with a major in taxation)
- ACCT 5800, Internship (MS with a major in accounting and MS with a major in taxation when concentration chosen is IMAPP)
- Accounting Concentration (to be determined in consultation with advisor)
- Approved Electives (to be determined in consultation with advisor)

At present, the department offers concentrations under the Master of Science with a major in accounting as follows:

- Audit concentration
- Audit in IMAPP concentration
- Management and Entrepreneurial concentration
- Management and Entrepreneurial in IMAPP concentration

Detailed information on requirements of each concentration is available from the College of Business Graduate Programs Office. Students with areas of interest not represented above are invited to consult with an accounting faculty advisor.

## Accounting/Taxation with IMAPP concentration, BS and MS

The combined Bachelor of Science with a major in accounting and Master of Science with a major in 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 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. The Integrated Masters of Accounting Professional Program (IMAPP) concentration includes additional degree requirements (e.g. higher GPA and mandatory internship).

## 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.

Students seeking admission who already hold a baccalaureate or higher degree should see the Graduate Catalog for information regarding the one-year (36-hour) Master of Science with a major in taxation program.

The final decision regarding admission to the Master of Science with a major in taxation program rests with the Department of Accounting.

## 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 taxation.

## Hours required and general/college requirements

## Business foundation requirements

See "Professional program" below for requirements.

## Professional field requirements

See "Professional program" (undergraduate/graduate accounting courses) below for requirements.

## Other course requirements

- Completion of at least 36 semester hours of graduate work.
- At least 30 semester hours in 5000-level accounting courses at UNT.


## Electives

See individual degree plan.

## Other requirements for students seeking an IMAPP BS/MS concentration

- An overall undergraduate UNT GPA of 3.3
- A GPA of 3.25 for both the first 9 graduate semester credit hours and first full-time semester taken at UNT after admission to the Toulouse Graduate School
- A minimum cumulative graduate GPA of 3.5 and continuous enrollment for all subsequent semesters


## Preprofessional program

## University Core Curriculum requirements

See "University Core Curriculum" as listed in the Academics section of this catalog.

## Pre-business requirements

To enroll in upper-division courses in the College of Business, the student must have completed at least 45 hours of the pre-business program requirements, as listed below, and have a minimum 2.7 overall UNT grade point average. First-term/semester transfer students who have completed at least 45 hours of the pre-business program requirements at another institution must have a minimum 2.7 overall GPA on all transfer work accepted by UNT to be admitted to the Bachelor of Science program and to enroll in upper-division courses. All of the following courses must be completed with a grade of C or higher.

- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- MATH 1190 - Business Calculus or
- MATH 1710 - Calculus I
- TECM 2700 - Technical Writing

Note

Some of these requirements may be taken as part of the University Core Curriculum requirements.

## Lower-level business foundation 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


## 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.

## Professional 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
or
- BCIS 3620 - Mainframe Concepts
- 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, 15 hours

- Advanced economics, 6 hours
- Approved information systems elective, 3 hours
- Elective, 3 hours: BCIS, production management, or operations research
- MGMT 3330-Communicating in Business


## Undergraduate accounting courses, 19 hours

- ACCT 3110-Intermediate Accounting I
- ACCT 3120 - Intermediate Accounting II
- ACCT 3270-Cost Accounting
- ACCT 3405 - Professional Development
- ACCT 4100-Accounting Systems
- ACCT 4300 - Federal Income Taxation
- ACCT 4400 - Auditing - Professional Responsibilities

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, 36 hours

The Master of Science with a major in accounting and concentration in IMAPP audit or concentration in IMAPP management and entrepreneurial and the Master of Science with a major in taxation and concentration in IMAPP requires 36 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 114 semester hours is completed. As soon as the test results are available, the student should contact the College of Business Graduate Programs Office regarding application to the graduate school.

The 36-hour program varies with the major and concentration chosen; however, a minimum of 30 hours of 5000-level accounting courses must be taken. Requirements include the following:

- ACCT 5110 - Fundamentals of Accounting Research
- ACCT 5120 - Using Information Systems in Accounting
- ACCT 5200 - Professional Ethics and Corporate Governance
- ACCT 5310 - Tax Research and Administrative Procedure
- ACCT 5320 - Taxation of Flow-Through Entities
- ACCT 5330 - Taxation of C Corporations
- ACCT 5360 - Advanced Topics in Federal Taxation
- ACCT 5800 - Internship
- BLAW 5400 - Law for Accountants and Managers
- either ACCT 5340 or ACCT 5370
- approved electives (chosen in consultation with the accounting advisor)

Detailed information on requirements of the concentration is available from the College of Business Graduate Programs Office.

## 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
or
- ACCT 4130 - Financial Statement Analysis
- ACCT 3270-Cost Accounting
- ACCT 4300 - Federal Income Taxation


# Department of Finance, Insurance, Real Estate and Law 

## Main Office

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940-565-3050
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## Marcia J. Staff, 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 ${ }^{\circledR}$ (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 student 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 www.cob.unt.edu/students/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 "University Core Curriculum Requirements" in the Academics section and under "Bachelor of Business Administration" in the College of Business section.

## Professional field in Economics, 18 hours

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 chair


## 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 Arts and 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.

## 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 "University Core Curriculum Requirements" in the Academics section and under "Bachelor of Business Administration" in the 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:

- FINA 4210 - Introduction to Derivatives
- FINA 4410 - Advanced Topics in Financial Institutions and Markets
- FINA 4650 - Special Topics in Finance
- BLAW 4450 - Corporation Law
- RMIN 4600 - Risk Management
- REAL 4000 - Real Estate Finance
- REAL 4300-Real Estate Investments


## Approved supporting courses, 12 hours

## Required course, 3 hours

- ACCT 3110 - Intermediate Accounting I


## Choose one course from

- ACCT 3120-Intermediate Accounting II
- ACCT 3270-Cost Accounting
- ACCT 4300 - Federal Income Taxation
- ECON 3550 - Intermediate Micro-Theory
- ECON 4030 - Economic Cycles and Forecasting
- ECON 4550 - Law and Economics
- ECON 4850 - International Trade


## Choose one from

- RMIN 2500 - Principles of Risk and Insurance Management
or
- REAL 2100 - Principles of Real Estate
- Any 3000- or 4000-level College of Business or ECON course (Suggested course: FINA 4610 - Comprehensive Financial Planning)
- 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


## Choose one from

- DSCI 3870-Management Science
- LSCM 3960 - Logistics and Supply Chain Management
- ECON 4140 - Managerial Economics
- MGMT 3830-Operations Management
- Or any course approved by the College of Business for coverage of creation of goods and services

A Bachelor of Business Administration with a professional field in real estate and a concentration in residential property management will help you prepare for the state licensing exam and provide you 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 "University Core Curriculum Requirements" in the Academics section and under "Bachelor of Business Administration" in the College of Business section.

## Professional field, 18 hours

The following courses are required for the concentration in residential property management.

- 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
- BLAW 4770-Real Estate Law and Contracts


## Approved supporting courses, 12 hours

- BLAW 4790 - Property Management Law
- REAL 4210 - Advanced Property Management


## And one course chosen from

- BLAW 4480 - International Business Law
- FINA 4500 - International Finance
- MGMT 4660 - International Management Perspectives
- MKTG 4280-Global Marketing Issues and Practice


## Plus one course chosen from

- DSCI 3870-Management Science
- ECON 4140-Managerial Economics
- LSCM 3960 - Logistics and Supply Chain Management
- MGMT 3830-Operations Management
- Or any course approved by the College of Business for coverage of creation of goods and services


## Real Estate, BBA

A Bachelor of Business Administration with a professional field in real estate will help you prepare for the state licensing exam and will provide you with practical experience with locally owned properties.

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 "University Core Curriculum Requirements" in the Academics section and under "Bachelor of Business Administration" in the College of Business section.

## Professional field, 18 Hours

The following courses are required for the professional field in real estate.

- 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
- BLAW 4770-Real Estate Law and Contracts


## Approved supporting courses, 12 hours

## One course from:

- FINA 4500 - International Finance
- BLAW 4480-International Business Law
- MGMT 4660-International Management Perspectives
- MKTG 4280-Global Marketing Issues and Practice


## One course from:

- DSCI 3870-Management Science
- LSCM 3960 - Logistics and Supply Chain Management
- ECON 4140 - Managerial Economics
- MGMT 3830-Operations Management
- Or any course approved by the College of Business for coverage of creation of goods and services.


## Plus 6 hours

Plus 6 hours approved by the faculty advisor from:

- REAL 3100-Real Estate Agency
- REAL 4800 - Internship
- BLAW 4430-Legal Organizations and Financial Transactions
- BLAW 4790 - Property Management Law
- FINA 4200 - Investments
- FINA 4400 - Financial Markets and Institutions
- RMIN 2500 - Principles of Risk and Insurance Management
- RMIN 4300 - Liability Risk Management and Insurance
- MGMT 3850 - Foundations of Entrepreneurship
- MKTG 4120 - Consumer Behavior
- ECON 4650 - Urban Economics
- Other courses as approved by the faculty advisor


## Risk, Insurance and Financial Services, BBA

A Bachelor of Business Administration with a professional field in risk, insurance and financial services gives you an in-depth understanding of areas related to life and property insurance and financial services. 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 "University Core Curriculum Requirements" in the Academics section and under "Bachelor of Business Administration" in the College of Business section.

## Professional field, 18 hours

## 18 hours from Group 1 or Group 2

(No substitutions)

## Group 1, Risk management and insurance

- RMIN 4200 - Life Insurance
- RMIN 4300 - Liability Risk Management and Insurance
- RMIN 4310 - Property Risk Management and Insurer Operations
- RMIN 4400 - Employee Benefit Programs
- RMIN 4500 - Estate Planning
- RMIN 4600 - Risk Management


## Group 2, Financial Planning Track

- ACCT 4300 - Federal Income Taxation
- FINA 4200 - Investments
- FINA 4610 - Comprehensive Financial Planning
- RMIN 4200 - Life Insurance
- RMIN 4400 - Employee Benefit Programs
- RMIN 4500 - Estate Planning


## Support field courses, 12 hours

(No substitutions)

- FINA 4500 - International Finance
- RMIN 2500 - Principles of Risk and Insurance Management
- REAL 2100 - Principles of Real Estate or
- FINA 4400 - Financial Markets and Institutions
or
- FINA 4800 - Internship or
- RMIN 4800 - Internship


## Choose one course from

- DSCI 3870-Management Science
- LSCM 3960 - Logistics and Supply Chain Management
- ECON 4140 - Managerial Economics
- MGMT 3830-Operations Management
- Or any course approved by the College of Business for coverage of Creation of Goods and Services


## 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 - Risk Management

Financial Planning minor

A minor in financial planning requires 18 hours, including:

## Required courses

- ACCT 4300 - Federal Income Taxation
- FINA 4200 - Investments
- FINA 4610-Comprehensive Financial Planning
- RMIN 2500 - Principles of Risk and Insurance Management
- RMIN 4400 - Employee Benefit Programs
- RMIN 4500 - Estate Planning


## Insurance minor

A minor in insurance requires 18 hours.

## Required courses

- RMIN 4300 - Liability Risk Management and Insurance
- RMIN 4310 - Property Risk Management and Insurer Operations
- RMIN 4400 - Employee Benefit Programs
- RMIN 4600 - Risk Management

Plus 3 hours selected from

- RMIN 2500 - Principles of Risk and Insurance Management
- FINA 2770 - Personal Finance

And 3 hours from

- RMIN 4200 - Life Insurance
- RMIN 4500 - Estate Planning


## 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 4480-International Business Law
- BLAW 4770-Real Estate Law and Contracts
- BLAW 4790 - Property Management Law
- ECON 4550 - Law and Economics
- LGAV 3150 - Transportation Law, Public Policy and Regulatory Environment
- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4890 - Legal Aspects of Employment Practices
- RMIN 4500 - Estate Planning


## Real Estate minor

A minor in real estate requires 18 hours, including:

## Required courses, 9 hours

- REAL 2100 - Principles of Real Estate
- REAL 3100 - Real Estate Agency
- BLAW 4770-Real Estate Law and Contracts


## 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

- REAL 4200 - Property Management
- BLAW 3430 - Legal and Ethical Environment of Business
- RMIN 2500 - Principles of Risk and Insurance Management
- MKTG 3010 - Professional Selling
- FINA 2770 - Personal Finance or
- FINA 3770 - Finance
- Any upper-level business course approved by the department.


## Residential Property Management minor

A minor in residential property management requires 18 hours, including:

## Requirements

- REAL 2100 - Principles of Real Estate
- REAL 4200 - Property Management
- REAL 4210 - Advanced Property Management
- BLAW 4790 - Property Management Law


## Plus 3 hours from

One course chosen from the following:

- REAL 4000 - Real Estate Finance
- REAL 4300 - Real Estate Investments
- REAL 4400 - Real Estate Valuation
- BLAW 4770-Real Estate Law and Contracts


## 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 - Internet Marketing Concepts and Strategy
- MKTG 4120 - Consumer Behavior


## Note

FINA 3770 is a prerequisite or corequisite for REAL 4000, REAL 4300, and REAL 4400.

## Undergraduate Academic Certificates

Residential Property Management certificate
Requirements, 12 hours

A grade of C or better is required.

- REAL 4200 - Property Management
- REAL 4210 - Advanced Property Management
- BLAW 4790 - Property Management Law


## 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 

Main Office<br>Business Leadership Building, Room 208<br>Mailing address:<br>1155 Union Circle \#305249<br>Denton, TX 76203-5017<br>940-565-3110<br>Fax: 940-565-4935<br>E-mail: itdsrecp@unt.edu<br>Web site: www.cob.unt.edu/itds<br>Mary C. Jones, Chair<br>Faculty

The Department of Information Technology and Decision Sciences educates business computer information systems designers and systems 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 field.

## Majors

## Business Analytics, BBA

A Bachelor of Business Administration with a professional field in business analytics provides you the background needed to make confident, successful decisions in today's competitive marketplace. 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" and the "University Core Curriculum Requirements" in the Academics section of this catalog and under "Bachelor of Business Administration" in the 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
- MGMT 3830-Operations Management
- DSCI 3870 - Management Science
- DSCI 4510 - Modeling for Business Intelligence
- DSCI 4520 - Introduction to Data Mining
- DSCI 4700 - Analytics for Decision Making


## Approved supporting courses, 12 hours

- MGMT 4660 - International Management Perspectives (or MKTG 4280 or FINA 4500, if approved in advance by the departmental undergraduate coordinator)


## Remaining hours

The remaining hours are selected from 3000- or 4000-level business courses. The following are suggested elective sequences.

- BCIS 3630-Object-Oriented Programming for Business
- BCIS 3680 - Enterprise-Oriented Programming
- BCIS 4620 - Introduction to Database Applications
- BCIS 4650 - Visual Programming for Business Applications
- MGMT 4810-Purchasing and Materials Management
- MGMT 4820 - Manufacturing Planning and Control
- MGMT 4880 - Management of Projects and Systems
- MKTG 3700 - Marketing Metrics
- MKTG 3710-Marketing Research and Analytics
- MKTG 4620 - E-Commerce Marketing Tools and Applications


## Note

BCIS 4800 cannot be used as a supporting course. Any exceptions to this policy must be approved in writing in advance by the departmental undergraduate coordinator.

## 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.

## Business Computer Information Systems, BS

A Bachelor of Science with a major in business computer information systems provides you with a thorough understanding of how information systems fit the business needs of an organization or company. 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

 specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Business requirements.
## Business foundation requirements

See "Business foundation requirements."

## Professional program requirements

```
See "Professional Program," below.
```


## Minor

See individual degree plan.

## Electives

See individual degree plan.

## Other requirements

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 minimum 2.0 grade point average in all courses completed at UNT; and
- A grade of C or above in each BCIS course taken in the professional program.


## Preprofessional program

- ECON 1100-Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- MATH 1190 - Business Calculus with a grade of C or higher or
- MATH 1710-Calculus I with a grade of C or higher
- COMM 1010-Introduction to Communication
- BCIS 2610 - Introduction to Computers in Business with a grade of C or higher
- 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
- DSCI 2710 - Data Analysis with Spreadsheets


## University Core Curriculum requirements

See "University Core Curriculum Requirements" in the Academics section of this catalog.

## 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.

## Upper-level business foundation

- BCIS 3610 - Basic Information Systems
- BCIS 3615 - Visual Display of Business Information
- DSCI 3710 - Business Statistics with Spreadsheets or
- DSCI 3870 - Management Science
- BLAW 3430 - Legal and Ethical Environment of Business
- MGMT 3720-Organizational Behavior
- MKTG 3650 - Foundations of Marketing Practice
- FINA 3770 - Finance
- BUSI 4940 - Business Policy


## Professional program

Business Computer Information Systems, 33 hours:

- BCIS 3630-Object-Oriented Programming for Business
- BCIS 3680 - Enterprise-Oriented Programming
- 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
- Three BCIS elective courses


## Minors

## 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 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 4640 - Administrative Problems in Information Systems
- BCIS 4650 - Visual Programming for Business Applications
- 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


## Decision Sciences minor

A minor in decision sciences is open to non-decision sciences majors.

Variation of the minor in decision sciences may be granted with approval from the Department of Information Technology and Decision Sciences. It is the student's responsibility to satisfy 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 4510 - Modeling for Business Intelligence
- DSCI 4520 - Introduction to Data Mining
- DSCI 4700 - Analytics for Decision Making
- MGMT 3830-Operations Management


## Department of Management

## Main Office

Business Leadership Building, Room 207

Mailing address:
1155 Union Circle \#305429
Denton, TX 76203-5017
940-565-3140

Web site: www.cob.unt.edu/mgmt

## Lew Taylor, 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 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, 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 "University Core Curriculum Requirements" in the Academics section and under "Bachelor of Business Administration" in the College of Business section.

## Academic standards

Refer to the "College of Business Academic Standards" and the "Bachelor of Business Administration General Degree Requirements" sections.

## Entrepreneurship professional field, 18 hours

The following courses are required for the professional field in entrepreneurship.

Students must maintain an overall 2.70 GPA in professional and supporting field courses.

## Required courses

- MGMT 3810 - Principles of Family Business
- MGMT 3850 - Foundations of Entrepreneurship
- MGMT 4220 - Advanced Entrepreneurship


## Three courses from the following

- MGMT 3820 - Management Concepts
- MGMT 3915-Creativity and Opportunity Development
- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4235-Social Entrepreneurship
- MGMT 4335 - Technology and Innovation Management
- MGMT 4560 - Topics in Entrepreneurship
- MGMT 4800 - Internship
- MGMT 4860-Organizational Design and Change


## Approved supporting courses, 12 hours

## Required courses

- MGMT 3830-Operations Management
- MGMT 4660 - International Management Perspectives

Plus 6 hours (2 courses), 1 from each group

## Group 1

- MGMT 3860 - Human Resource Management
- MGMT 3880-Business Ethics and Social Responsibility
- MGMT 4470 - Leadership
- MKTG 3700 - Marketing Metrics
- MKTG 3710 - Marketing Research and Analytics
- RMIN 4300 - Liability Risk Management and Insurance

Group 2

- ACCT 3110 - Intermediate Accounting I
- FINA 4300 - Financial Statement Analysis and Liquidity Management
- FINA 4310 - Valuation and Financial Decisions

Operations and Supply Chain Management, BBA

A Bachelor of Business Administration with a professional field in operations and supply chain management makes you a vital contributor to a company's success. Your skills will help you plan technological innovations, compete globally, increase productivity and reduce costs.

## 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 "University Core Curriculum Requirements" in the Academics section and under "Bachelor of Business Administration" in the College of Business section.

## Academic standards

Refer to the "College of Business Academic Standards" and the "Bachelor of Business Administration General Degree Requirements" sections.

## Operations and Supply Chain Management professional field, 18 hours

The following courses are required for the professional field in operations and supply chain management.

- MGMT 3830-Operations Management
- MGMT 4660 - International Management Perspectives
- MGMT 4810 - Purchasing and Materials Management
- MGMT 4820 - Manufacturing Planning and Control
- MGMT 4830 - Productivity and Quality Management
- MGMT 4880 - Management of Projects and Systems


## Approved supporting courses, 12 hours

- DSCI 3870-Management Science
- LSCM 3960 - Logistics and Supply Chain Management

Plus two courses selected from

- ACCT 3270 - Cost Accounting
- DSCI 4510 - Modeling for Business Intelligence
- DSCI 4700 - Analytics for Decision Making
- FINA 4300 - Financial Statement Analysis and Liquidity Management
- LSCM 4540 - Logistics Application of Enterprise Resource Planning Systems
- MGMT 3850-Foundations of Entrepreneurship
- MGMT 4800-Internship

Organizational Behavior and Human Resource Management, BBA

A Bachelor of Business Administration with a professional field in organizational behavior and 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 "University Core Curriculum Requirements" in the Academics section and under "Bachelor of Business Administration" in the College of Business section.

## Academic standards

Refer to the "College of Business Academic Standards" and the "Bachelor of Business Administration General Degree Requirements" sections.

## Organizational Behavior and Human Resource Management professional field, 18 hours

## Required courses

- MGMT 3860 - Human Resource Management

Plus five courses

Plus five additional courses selected from the following:

- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4170 - Employee and Labor Relations
- MGMT 4180 - Workplace Health and Safety
- MGMT 4300-Recruitment, Selection and Placement
- MGMT 4460-Topics in Organizational Behavior
- MGMT 4470 - Leadership
- MGMT 4840 - Compensation and Benefits Administration
- MGMT 4890-Legal Aspects of Employment Practices


## Approved supporting courses, 12 hours

- MGMT 3830-Operations Management
- MGMT 4660-International Management Perspectives


## Plus 6 hours

Plus 6 hours approved in advance by the department advisor from the following:

- Any course listed above not taken to satisfy professional field requirements.
- LTEC 4440 - Advanced Instructional Strategies
- MGMT 3850 - Foundations of Entrepreneurship
- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4800 - Internship
- MGMT 4860-Organizational Design and Change
- RMIN 4400 - Employee Benefit Programs


## Minors

## Entrepreneurship 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
- MGMT 3810 - Principles of Family Business
- MGMT 3915-Creativity and Opportunity Development
- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4220 - Advanced Entrepreneurship
- MGMT 4235-Social Entrepreneurship
- MGMT 4335 - Technology and Innovation Management
- MGMT 4560 - Topics in 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.

## Management minor

## Organizational behavior, 3 hours

- MGMT 3720-Organizational Behavior


## Plus 15 hours from

- MGMT 3330-Communicating in Business
- MGMT 3820-Management Concepts
- MGMT 3830-Operations Management
- MGMT 3850 - Foundations of Entrepreneurship
- MGMT 3860-Human Resource Management
- MGMT 3870 - Management Research Methods
- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4170 - Employee and Labor Relations
- MGMT 4180 - Workplace Health and Safety
- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4300-Recruitment, Selection and Placement
- MGMT 4460 - Topics in Organizational Behavior
- MGMT 4470 - Leadership
- MGMT 4660 - International Management Perspectives
- MGMT 4810 - Purchasing and Materials Management
- MGMT 4820 - Manufacturing Planning and Control
- MGMT 4830 - Productivity and Quality Management
- MGMT 4840-Compensation and Benefits Administration
- MGMT 4860-Organizational Design and Change
- MGMT 4880 - Management of Projects and Systems


## 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 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 3810 - Principles of Family Business
- MGMT 3915 - Creativity and Opportunity Development
- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4220 - Advanced Entrepreneurship
- MGMT 4235 - Social Entrepreneurship
- MGMT 4335 - Technology and Innovation Management
- MGMT 4560-Topics in Entrepreneurship


## Note

Students should check prerequisites and scheduled course offerings so that they register for courses in appropriate sequence.

## Department of Marketing and Logistics

Main Office<br>Business Leadership Building, Room 215<br>Mailing address:<br>1155 Union Circle \#311396<br>Denton, TX 76203-5017<br>940-565-3120<br>Fax: 940-565-3837<br>Web site: Www.cob.unt.edu/mktg<br>\section*{Jeff Sager, Chair}

## Faculty

The Department of Marketing and Logistics offers professional education programs to prepare individuals for the pursuit of marketing and logistics careers with manufacturers, transportation and logistics firms, retail and wholesale middlemen, profit and nonprofit service organizations, governmental agencies and academic institutions.

## Academic Standards

1. It is required that students entering the professional fields/majors in the Department of Marketing and Logistics have a grade point average of at least 2.7 on all courses completed at UNT. First semester transfer students must have a transfer grade point average of 2.7 in order to take professional field/major courses.
2. A grade of C or above must be earned in each professional field/major or supporting field course completed in residence or transferred to UNT.
3. Academic requirements for graduation with a professional field/major within the Department of Marketing and Logistics include:
a. a minimum 2.7 grade point average in the professional field/major and supporting field, with minimum grades of C required in each professional field/major and supporting field course; and
b. a minimum 2.0 grade point average in all courses completed at UNT.

## 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 customer relationship management, logistics and supply chain management, new product development, retailing, and e-commerce marketing. For additional details, please contact the department.

## Majors

## Aviation Logistics, BS

The bachelor's program with a major in aviation logistics takes a unique approach to creating the next generation of aviation industry leaders. While many aviation programs focus on the operations or manufacturing aspects of aviation, our curriculum focuses on the value of integrating aviation and aerospace activities to move people and cargo.

The following requirements must be satisfied for a Bachelor of Science with a major in aviation logistics.

## 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 "University Core Curriculum Requirements" in the Academics section of this catalog and the College of Business requirements.

## Business foundation requirements

In addition to ACCT 2010, ACCT 2020, BCIS 2610, and DSCI 2710, the BS degree requires the following 27 semester hours of basic foundation courses in business administration:

- ECON 1100 - Principles of Microeconomics
- ECON 1110 - Principles of Macroeconomics
- MATH 1190 - Business Calculus
- COMM 1010-Introduction to Communication
or
- TECM 2700-Technical Writing
- BLAW 3430-Legal and Ethical Environment of Business
- BCIS 3610 - Basic Information Systems
- MKTG 3650 - Foundations of Marketing Practice
- MGMT 3720-Organizational Behavior
- FINA 3770 - Finance


## Major requirements

The major in aviation logistics consists of 30 hours beyond the business foundations requirements.

- LSCM 3960 - Logistics and Supply Chain Management
- LSCM 4560 - Business Transportation Management
- LSCM 4800 - Logistics Internship
- 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 Law, Public Policy and Regulatory Environment
- LGAV 4100 - Airport and Infrastructure Planning and Control


## Other course requirements

An additional 9 hours of directed electives (supporting courses) from the following list are required.

- DSCI 3870 - Management Science
- MGMT 3830-Operations Management
- MGMT 4880-Management of Projects and Systems
- LGAV 3510 - Private Pilot and General Aviation Concepts
- LGAV 3520 - Instrument Flying Concepts
- LGAV 3530 - Commercial Pilot Concepts
- LGAV 4500 - Human Factors and Cockpit Resource Leadership
- LGAV 4810 - Special Topics in Aviation Logistics
- LGAV 4900 - Special Problems
- LSCM 4360-Global Alliances and International Supply Chain Management
- LSCM 4510 - Logistics and Business Analysis
- LSCM 4530 - E-Logistics in Supply Chain Management
- LSCM 4540 - Logistics Application of Enterprise Resource Planning Systems


## Electives

See individual degree plan.

## Other requirements

Students must meet College of Business Academic Standards.

## Logistics and Supply Chain Management, BS

The course work for the Bachelor of Science with a major in logistics and 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 logistics and 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 "University Core Curriculum Requirements" in the Academics section and the College of Business requirements.

## Preprofessional program 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)
- COMM 1010-Introduction to Communication or
- TECM 2700-Technical Writing
- 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:

- BCIS 3610 - Basic Information Systems
- BLAW 3430 - Legal and Ethical Environment of Business
- DSCI 3870-Management Science
- FINA 3770 - Finance
- MGMT 3720 - Organizational Behavior
- MKTG 3010 - Professional Selling
- MKTG 3650 - Foundations of Marketing Practice


## Major requirements

The major in logistics and supply chain management consists of 24 hours beyond the business foundations requirements, plus 9 hours of supporting course work.

- 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
- LSCM 4800 - Logistics Internship
- LSCM 4860-Advanced Logistics Management
- MGMT 3830-Operations Management
- MGMT 4810 - Purchasing and Materials Management


## Supporting course work

An additional 9 hours of supporting course work from the following list are required.

- ACCT 3270-Cost Accounting
- ACCT 4130 - Financial Statement Analysis
- ACCT 4270 - Advanced Cost Accounting
- BCIS 4660 - Introduction to Data Warehousing
- DSCI 3710 - Business Statistics with Spreadsheets
- DSCI 4510 - Modeling for Business Intelligence
- 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 Law, Public Policy and Regulatory Environment
- LSCM 4510 - Logistics and Business Analysis
- LSCM 4540 - Logistics Application of Enterprise Resource Planning Systems
- LSCM 4810-Special Topics in Logistics and Supply Chain Management
- LSCM 4830 - Industry Practicum
- LSCM 4900 - Special Problems
- MKTG 3700 - Marketing Metrics
- MKTG 4280-Global Marketing Issues and Practice
- MKTG 4330 - Strategic Brand Management
- MKTG 4520 - Marketing Channels and Strategic Partnerships
- MKTG 4640 - Database Marketing Fundamentals


## 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 logistics and 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 logistics and supply chain management 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 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.

## Marketing with a concentration in professional selling, 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 "University Core Requirements" in the Academics section and under "Bachelor of Business Administration" in the College of Business section.

## Professional field in marketing with 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 and Logistics 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.

- LSCM 3960 - Logistics and Supply Chain Management
- MKTG 3010 - Professional Selling (cannot be applied to both the business foundation and professional field)
- MKTG 3700 - Marketing Metrics
- 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- or 4000-level marketing or logistics and supply chain management courses chosen in consultation with the student's 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 "University Core Requirements" in the Academics section and under "Bachelor of Business Administration" in the College of Business section.

## 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:

- LSCM 3960 - Logistics and Supply Chain Management
- MKTG 3700-Marketing Metrics
- MKTG 3710-Marketing Research and Analytics
- 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 courses, 9 hours

Nine hours of 3000- or 4000-level marketing or logistics and supply chain management courses.

The supporting field 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.

## Minors

## Aviation Logistics minor

A minor in aviation logistics requires 18 hours.

## Required course

- LGAV 3100 - Introduction to Aviation Industry


## Plus 15 hours

Select 5 courses. At least three must be LGAV courses.

- 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 Law, Public Policy and Regulatory Environment
- LGAV 3510 - Private Pilot and General Aviation Concepts
- LGAV 3520 - Instrument Flying Concepts
- LGAV 3530-Commercial Pilot Concepts
- LGAV 4500 - Human Factors and Cockpit Resource Leadership
- LGAV 4810 - Special Topics in Aviation Logistics
- LGAV 4900-Special Problems
- LSCM 3960 - Logistics and Supply Chain Management
- LSCM 4360-Global Alliances and International Supply Chain Management
- LSCM 4510 - Logistics and Business Analysis
- LSCM 4530 - E-Logistics in Supply Chain Management
- LSCM 4540 - Logistics Application of Enterprise Resource Planning Systems
- LSCM 4560 - Business Transportation Management


## 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:

- 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
- LGAV 3120-Aviation Safety Systems
- LGAV 3130 - Air Cargo Planning and Control
- LGAV 3140 - Air Passenger Planning and Control
- LGAV 3150 - Transportation Law, Public Policy and Regulatory Environment


## Marketing minor

A minor in marketing requires 18 hours.

## Required course, 3 hours

- MKTG 3650 - Foundations of Marketing Practice


## Plus 15 hours from

- MKTG 2650 - Culture and Consumption
- MKTG 3010-Professional Selling
- MKTG 3660 - Advertising Management
- MKTG 3700-Marketing Metrics
- MKTG 3710 - Marketing Research and Analytics
- MKTG 3720 - Internet Marketing Concepts and Strategy
- MKTG 4120-Consumer Behavior
- MKTG 4280-Global Marketing Issues and Practice
- MKTG 4320-New Product Development
- 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 - Electronic Retailing and Promotion Strategies
- MKTG 4750-Services Marketing
- MKTG 4800-Internship in Marketing
- MKTG 4880 - Advanced Marketing Management
- MKTG 4890 - Applied Marketing Problems
- 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


## Professional Selling minor

Students must apply for admission into the minor in professional selling and meet specific admission criteria. See the Department of Marketing and Logistics 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 and Logistics. It is the student's responsibility to satisfy required course prerequisites where applicable.

## Required courses, 18 hours

- MKTG 3010 - 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
- MKTG 4805 - Internship in Professional Selling


## Undergraduate Academic Certificates

## E-commerce Marketing certificate

For information, please contact the Department of Marketing and Logistics.

## Logistics and Supply Chain Management certificate

For information, please contact the Department of Marketing and Logistics.

## New Product Development certificate

For information, please contact the Department of Marketing and Logistics.

## Retailing certificate

For information, please contact the Department of Marketing and Logistics.

## College of Education

Main Office<br>Matthews Hall, Room 214<br>Mailing address:<br>1155 Union Circle \#311337<br>Denton, TX 76203-5017<br>940-565-2235<br>Fax: 940-565-4415<br>Web site: www.coe.unt.edu<br>Student Advising Office<br>Gwenn Pasco, Assistant Dean<br>Matthews Hall, Room 105<br>940-565-2736<br>Web site: www.coe.unt.edu/sao<br>\section*{Jerry R. Thomas, Dean}<br>Lisbeth Dixon-Krauss, Associate Dean<br>Bertina H. Combes, Senior Associate Dean

## Our mission

The College of Education prepares professionals and scholars who contribute to the advancement of education, health and human development.

## Our vision

We aspire to be leaders known regionally, nationally and internationally for our expertise and excellence in research, teaching, outreach, and solutions for education and human well-being. Through our efforts we improve the lives of the citizens of Texas, the nation and the world.

## Functions

We generate research, disseminate knowledge and prepare a diverse body of scholars. Our graduates become leaders in their fields while enhancing the development and effective functioning of individuals, schools and families.

We improve professional teaching and learning for $\mathrm{K}-12$ schools. Helping teachers teach and students learn is central to our mission. We work with schools and school systems to prepare effective teachers and other professionals who help all students learn; and we prepare principals, superintendents and other school leaders to help in achieving this goal.

We develop leaders for community colleges and universities. We provide education and professional development for individuals who serve or will serve as administrators, faculty and scholars in higher education institutions, governmental agencies, policy or research centers, and professional associations that conduct postsecondary education in the United States and globally.

We improve the functioning of individuals in their physical, health and leisure behaviors. We accomplish this through the academic preparation of professionals, contributions to the professional body of knowledge, and the provision of service to the university and community at large and through programs that facilitate an enhanced quality of life.

We prepare counselors who serve the public and humanity at large. We prepare highly competent counseling professionals for work in schools, communities, colleges, business and industry. Our research seeks to use counseling for developing holistic wellness with at-risk and diverse populations. We provide humanitarian assistance to academic, professional and public communities.

We prepare family and child development experts who serve the community and society. We help families interact effectively with schools and other community agencies to improve life and to promote well being.

The College of Education is accredited by the National Council for Accreditation of Teacher Education (NCATE) (2010 Massachusetts Avenue NW, Suite 500, Washington, DC 20036-1023; 202-466-7496 [www.ncate.org]) and the State Board for Educator Certification (www.tea.state.tx.us). The program in counseling is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) (5999 Stevenson Avenue; Alexandria, VA 22304; 703-823-9800 ext. 301). 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).

The College of Education offers 5 bachelor's, 12 master's and 7 doctoral degrees in four academic departments: Counseling and Higher Education; Educational Psychology; Kinesiology, Health Promotion and Recreation; and Teacher Education and Administration. Some financial support for research is available from external grants and faculty research funds administered by the Office of Research and Academic Grants. The areas of research are described by each department.

The following programs of study, organized by department, are available in the college.

## Department of Counseling and Higher Education

Janice Holden, Chair
Stovall Hall, Room 155
Phone: 940-565-2910
Web site: www.coe.unt.edu/che

## Program areas:

Counseling
Higher Education

## Department of Educational Psychology

Abbas Tashakkori, Chair
Matthews Hall, Room 316
Phone: 940-565-2093
Web site: www.coe.unt.edu/epsy

## Program areas:

Development and Family Studies
Educational Research
School Psychology
Special Education

## Department of Kinesiology, Health Promotion and Recreation

Allen Jackson, Chair
Physical Education Building, Room 209
Phone: 940-565-2651
Web site: www.coe.unt.edu/khpr
Program areas:
Health Promotion
Kinesiology
Recreation and Leisure Studies

## Department of Teacher Education and Administration

James D. Laney, Chair
Matthews Hall, Room 206U

Phone: 940-565-2920
Web site: www.coe.unt.edu/tea

## Program areas:

Curriculum and Instruction
Early Childhood Studies
Educational Leadership
Interdisciplinary Studies (teacher certification)
Language, Literacy and Bilingual Education
Secondary Education

## University Core Curriculum requirements and degree requirements

The University of North Texas core curriculum is listed in the "University Core Curriculum requirements" in the Academics 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.

## Student Advising Office

The Student Advising Office helps students in their academic careers by providing academic advising, preparing degree plans, graduation application processing, and certification information and processing. Contact the Student Advising Office, Matthews Hall, Room 105, 940-5652736.

## Programs of study

The college offers undergraduate and graduate programs in the following areas:

- Bachelor of Science with majors in development and family studies; interdisciplinary studies (early childhood through grade 6 or grades 4 through 8); kinesiology; health promotion; and recreation and leisure studies;
- Master of Education with majors in counseling; curriculum and instruction; educational leadership; higher education; secondary education; and special education;
- Master of Science with majors in counseling; development and family studies; early childhood studies; educational psychology; higher education; kinesiology; and recreation and leisure studies;
- Doctor of Philosophy with majors in counseling; curriculum and instruction; educational research; higher education; 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.

## Teacher certification

Students planning to teach in elementary (EC-6) or middle schools (4-8) must major in interdisciplinary studies (seeDepartment of Teacher Education and Administration).

Students planning to teach in secondary schools (7-12) 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 record search. 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 the results of criminal background checks 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, additional teaching field, or area of specialization, that student must have successfully (1) completed the approved teacher education program for the preparation of early childhood, middle grades, secondary or all-level teachers and met the GPA and semester credit hour requirements; (2) completed student teaching; and (3) passed appropriate sections of the Texas Examinations of Educator Standards (TExES), as applicable.

The State offers the TExES exam several times each long term/semester and at least once in the summer. Contact the TExES Advising Office, Matthews Hall, Room 103, for further information (940-369-8601). Although a student's completion of an approved program or specialization for a degree and/or certificate should prepare the student for such proficiency tests, the College of Education cannot, and does not, guarantee that students will pass such tests.

Students who have completed all requirements must apply for teaching certificates online (see www.tea.state.tx.us). In some cases, teacher service records may be required. For information contact the Student Advising Office in Matthews Hall, Room 105.

## Teaching certificates

The awarding of teaching certificates is a function of the State Board for Educator Certification and is contingent upon a recommendation by the College of Education. The college is approved to offer the following initial certificates:

## Early Childhood through Grade Six (certifies grades EC-6)

- Generalist
- Bilingual Generalist (certifies grades bilingual EC-6)
- ESL Generalist (certifies grades ESL EC-6)
- EC-6 Generalist and Special Education (certifies EC-6 Generalist and EC-12 Special Education)


## Grades Four through Eight (certifies grades 4-8)

- English Language Arts and Reading and 4-8 ESL
- Mathematics and 4-8 ESL
- Science and 4-8 ESL
- Social Studies and 4-8 ESL


## Standard Secondary (certifies grades 7-12) and All-Level (EC-12)

At the time this catalog went to press, UNT was authorized to recommend secondary and all-level teacher certification for students who have completed a baccalaureate degree 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 content areas: art, French, German, music, physical education, Spanish and theatre.

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 Student Advising Office, Matthews Hall, Room 105, or check online at www.coe.unt.edu/sao for the current information regarding specific certificate requirements and any pending changes. The SAO sees students by appointment only, except during the regular registration period each term/semester when they accept drop-in visits. Appointment times fill quickly and students are encouraged to schedule early. Appointments can be made up to two weeks in advance.

## Professional certificates

## Student teaching

Elementary, middle school and secondary certification (early childhood through 6th grade, 4th through 8th grades, or 7th through 12th grades) require student teaching. All-level certification requires student teaching at both the EC -6 and $7-12$ levels. A special education teaching field requires student teaching in a special education setting. Student teaching requirements include attendance at required seminars.

Student teaching is to be completed during the student's senior year as a full-day assignment in a school for an entire fall or spring term/semester in a Professional Development School (PDS) setting. Student teaching and PDS II do not count as full-time status for financial aid nor can students work at other jobs during student teaching. Consequently, students should plan ahead to cover their financial needs during student teaching or PDS II semester. Students participating in the Professional Development School program will complete their student teaching as an extension of their early field experience. The PDS Site Coordinator will determine specific placements.

Evaluation of student teaching is on a pass/no pass basis. To be recommended for teacher certification by UNT, a student must meet the following requirements prior to student teaching.

1. A formal date of admission to the teacher education program at UNT must be obtained.
2. For EC-6 and 4-8 student teachers, students must complete all prerequisites and have a C or better in all education courses (EDEC, EDEE, EDRE, EDSE, EDUC, DFST, etc.). Moreover, they must also have a GPA of 2.75 across all pedagogy courses. A minimum GPA of 2.75 is also required in each area: UNT core, academic major, as well as pedagogy. No courses taken during the student teaching term/semester will be used to determine eligibility to student teach.
3. For secondary and all-level student teachers, a minimum GPA of 2.75 must be maintained in each area (academic major and pedagogy), and in all college work completed at UNT, as well as a cumulative GPA of 2.75 for all colleges attended. Students must earn a C or better in all education courses (EDEC, EDEE, EDRE, EDSE, EDUC, DFST, etc.).
4. Secondary and all-level student teachers must have completed all the required course work in the teaching field. Elementary (EC-6 and 4-8) student teachers must have completed all program course work, exclusive of student teaching and EDSP 4350 (as required for students seeking 4-8 and EC-6 Generalist certification.
5. Student teachers must be in residence at UNT and have earned at least 6 semester hours of resident credit in education at UNT.
6. Review and approval from the Admission, Review and Retention Committee must be granted in special cases related to candidate readiness for student teaching.
For information regarding student teaching, please contact the PDS Coordinator, Matthews Hall, Room 206J, phone 940-369-7217.

## Centers and clinics

The Center for Interdisciplinary Research and Analysis 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 also is 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.

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 twoyear 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 betterprepared 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 offerings if the number of registrants is too small to justify conducting it.

## Requirements

## College of Education Degree Requirements

## Programs of study

The college offers undergraduate and graduate programs in the following areas:

- Bachelor of Science with majors in development and family studies; interdisciplinary studies (early childhood through grade 6 or grades 4 through 8); kinesiology; health promotion; and recreation and leisure studies;
- Master of Education with majors in counseling; curriculum and instruction; educational leadership; higher education; secondary education; and special education;
- Master of Science with majors in counseling; development and family studies; early childhood studies; educational psychology; higher education; kinesiology; and recreation and leisure studies;
- Doctor of Philosophy with majors in counseling; curriculum and instruction; educational research; higher education; and special education;
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Students planning to teach in secondary schools (7-12) 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 record search. 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 the results of criminal background checks 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, additional teaching field, or area of specialization, that student must have successfully (1) completed the approved teacher education program for the preparation of early childhood, middle grades, secondary or all-level teachers and met the GPA and semester credit hour requirements; (2) completed student teaching; and (3) passed appropriate sections of the Texas Examinations of Educator Standards (TExES), as applicable.

The State offers the TExES exam several times each long term/semester and at least once in the summer. Contact the TExES Advising Office, Matthews Hall, Room 103, for further information (940-369-8601). Although a student's completion of an approved program or specialization for a degree and/or certificate should prepare the student for such proficiency tests, the College of Education cannot, and does not, guarantee that students will pass such tests.

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- ESL Generalist (certifies grades ESL EC-6)
- EC-6 Generalist and Special Education (certifies EC-6 Generalist and EC-12 Special Education)


## Grades Four through Eight (certifies grades 4-8)

- English Language Arts and Reading and 4-8 ESL
- Mathematics and 4-8 ESL
- Science and 4-8 ESL
- Social Studies and 4-8 ESL


## Standard Secondary (certifies grades 7-12) and All-Level (EC-12)

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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 Student Advising Office, Matthews Hall, Room 105, or check online at www.coe.unt.edu/sao for the current information regarding specific certificate requirements and any pending changes. The SAO sees students by appointment only, except during the regular registration period each term/semester when they accept drop-in visits. Appointment times fill quickly and students are encouraged to schedule early. Appointments can be made up to two weeks in advance.

## Professional certificates

## Student teaching

Elementary, middle school and secondary certification (early childhood through 6th grade, 4th through 8th grades, or 7th through 12th grades) require student teaching. All-level certification requires student teaching at both the EC -6 and $7-12$ levels. A special education teaching field requires student teaching in a special education setting. Student teaching requirements include attendance at required seminars.

Student teaching is to be completed during the student's senior year as a full-day assignment in a school for an entire fall or spring term/semester in a Professional Development School (PDS) setting. Student teaching and PDS II do not count as full-time status for financial aid nor can students work at other jobs during student teaching. Consequently, students should plan ahead to cover their financial needs during student teaching or PDS II semester. Students participating in the Professional Development School program will complete their student teaching as an extension of their early field experience. The PDS Site Coordinator will determine specific placements.

Evaluation of student teaching is on a pass/no pass basis. To be recommended for teacher certification by UNT, a student must meet the following requirements prior to student teaching.

1. A formal date of admission to the teacher education program at UNT must be obtained.
2. For EC-6 and 4-8 student teachers, students must complete all prerequisites and have a C or better in all education courses (EDEC, EDEE, EDRE, EDSE, EDUC, DFST, etc.). Moreover, they must also have a GPA of 2.75 across all pedagogy courses. A minimum GPA of 2.75 is also required in each area: UNT core, academic major, as well as pedagogy. No courses taken during the student teaching term/semester will be used to determine eligibility to student teach.
3. For secondary and all-level student teachers, a minimum GPA of 2.75 must be maintained in each area (academic major and pedagogy), and in all college work completed at UNT, as well as a cumulative GPA of 2.75 for all colleges attended. Students must earn a C or better in all education courses (EDEC, EDEE, EDRE, EDSE, EDUC, DFST, etc.).
4. Secondary and all-level student teachers must have completed all the required course work in the teaching field. Elementary (EC-6 and 4-8) student teachers must have completed all program course work, exclusive of student teaching and EDSP 4350 (as required for students seeking 4-8 and EC-6 Generalist certification.
5. Student teachers must be in residence at UNT and have earned at least 6 semester hours of resident credit in education at UNT.
6. Review and approval from the Admission, Review and Retention Committee must be granted in special cases related to candidate readiness for student teaching.
For information regarding student teaching, please contact the PDS Coordinator, Matthews Hall, Room 206J, phone 940-369-7217.

# Department of Counseling and Higher Education 

Main Office<br>Welch Complex 2<br>Mailing address:<br>1155 Union Circle \#310829<br>Denton, TX 76203-5017<br>940-565-2910<br>Fax: 940-565-2905<br>Web site: www.coe.unt.edu/che

## Janice Holden, Chair

## 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 persons of all ages through positive human-animal interactions.

The Higher Education Development Initiative was established in 1972 with foci 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
Sycamore Hall, Room 288-E
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 that span human services professions. A minor in the program 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 three 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. Typically, no courses are offered during the summer.

## 18 hours from

Students in the counseling minor program must complete 18 hours of course work from the following list:

- COUN 2610 - Principles of Counseling I
- COUN 2620 - Diversity and Cultural Awareness
- COUN 3600 - Therapeutic Play
- COUN 3620 - Principles of Counseling II
- COUN 3630 - Survey of Career Development and Career Guidance
- COUN 3640-Group Process in Helping Relationships
- COUN 4620 - Interpersonal Skills in Helping Relationships
- COUN 4900 - Special Problems


## 6 hours from

- COUN 2610 - Principles of Counseling I
- COUN 3620 - Principles of Counseling II


# Department of Educational Psychology 

Main Office<br>Matthews Hall, Room 316<br>Mailing address:<br>1155 Union Circle, \#311335<br>Denton, TX 76203-5017<br>940-565-4646<br>Fax: 940-565-2185<br>Web site: www.coe.unt.edu/educational-psychology

## Abbas Tashakkori, 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 Family Science

The EPSY Office of Family Science facilitates collaborative and interdisciplinary family science research and training projects by faculty and students across the UNT community. The goal of the OFS is to meet the needs of students, professionals and families through research, training, consultation and policy development resources.

## Development and Family Science

Web site: www.coe.unt.edu/educational-psychology

Development and family science provides students 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 family and community, lifespan development, intervention and administration, and family life education.

A graduate completing required courses in family and community may file a short application and be approved as a provisional Certified Family Life Educator (CFLE) through the National Council on Family Relations. A student completing required courses in intervention and administration may pursue credentialing as an Early Intervention Specialist with the Texas Department of Assistive and Rehabilitative Services.

## 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 certification is available in conjunction with the Bachelor of Science with a major in Interdisciplinary Studies with EC-6 certification. See the Bachelor of Science with a major in interdisciplinary studies (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 development and family studies and for undergraduate students seeking a special education (K-12) certification. Applications can be found online at
www.coe.unt.edu/educational-psychology/scholarships. 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 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, 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 Family and Community, BS (non-teacher certification)

*Name change pending approval of the Texas Higher Education Coordinating Board.

Graduates of the human development and family science program seek to enhance the well-being of individuals and families through research and community engagement. Family and community 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 family and community (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 Academics section of this catalog and the College of Education requirements.

## Major requirements

## Educational psychology core, 15 hours

It is recommended that students enroll in HDFS 1013, HDFS 1023 and HDFS 2042 during their first term/semester in the program.

- HDFS 1013 - Human Development
- HDFS 1023-Assessment and Observation
- HDFS 2042 - Professional Development in Human Development and Family Science
- HDFS 4011 - Pre-Internship
- HDFS 4023 - Internship
- EPSY 3013 - Reading and Understanding Research


## 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 Family and Community or Lifespan Development.

## Family and Community concentration, 48 hours

## Required courses, 36 hours

- HDFS 2033 - Parenting in Diverse Families
- HDFS 2313 - Courtship and Marriage
- HDFS 3113 - Infant and Toddler Development
- HDFS 3124 - Child Development
- HDFS 3153 - The Impact of Culture on Individuals and Families
- HDFS 3313 - Interpersonal Relationships
- HDFS 3423 - Family, School and Community
- HDFS 4133 - Adolescent Development
- HDFS 4233-Guidance of Children and Youth
- HDFS 4323 - Family Law and Public Policy
- HDFS 4353 - Advanced Family Science
- AGER 3480 - Psychology of Adult Development and Aging or
- PSYC 3480 - Adult Development and Aging

Track, 12 hours

Within the Family and Community concentration, students must select a track focusing on either Family Life Education or Intervention and Administration.

## Family Life Education track

After completing this track, students will be qualified to apply for the Certified Family Life Educator (CFLE) credential.

- HDFS 4413 - Family Life Education
- HDFS 4433 - Family Resource Management
- HDFS 4463 - Marriage and Relationship Education
- HLTH 2200 - Family Life and Human Sexuality or
- PSYC 4470 - Sexual Behavior

Intervention and Administration track

After completing this track, students will be qualified to work with intervention services and administration of programs to children and families.

- HDFS 3213 - Infant and Toddler Intervention and Education
- HDFS 4253 - Administration of Programs for Children, Youth and Families
- EDSP 3210 - Educational Aspects of Exceptional Learners
- SPHS 2015 - Nature of Communication Disorders
- HMGT 1450 - Principles of Nutrition (additional course required for Early Childhood Intervention (ECI) credential)


## 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 Toddler Development
- HDFS 3213 - Infant and Toddler Intervention and Education


## Teaching young children (2 years-8 years)

- HDFS 3124 - Child Development
- HDFS 4233 - Guidance of Children and Youth
- EDEC 4243 - Environmental Processes and Assessment


## School-age care and programming

- HDFS 3124 - Child Development
- HDFS 4133 - Adolescent Development

Adolescents

- HDFS 4133 - Adolescent Development


## 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 Lifespan Development, BS (non-teacher certification)
*Name change pending approval of the Texas Higher Education Coordinating Board.

Graduates of the human development and family science program seek to enhance the well-being of individuals and families through research and community engagement. Lifespan development 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 lifespan development (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 Academics section of this catalog and the College of Education requirements.

## Major requirements

## Educational psychology core, 15 hours

It is recommended that students enroll in HDFS 1013, HDFS 1023 and HDFS 2042 during their first term/semester in the program.

- HDFS 1013 - Human Development
- HDFS 1023 - Assessment and Observation
- HDFS 2042 - Professional Development in Human Development and Family Science
- HDFS 4011 - Pre-Internship
- HDFS 4023 - Internship
- EPSY 3013 - Reading and Understanding Research


## 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 Family and Community or Lifespan Developement.

## Lifespan Development concentration, 45 hours

## Required courses, 27 hours

- HDFS 3113 - Infant and Toddler Development
- HDFS 3124 - Child Development
- HDFS 3153 - The Impact of Culture on Individuals and Families
- HDFS 3313 - Interpersonal Relationships
- HDFS 3423 - Family, School and Community
- HDFS 4133-Adolescent Development
- AGER 3480 - Psychology of Adult Development and Aging
or
- PSYC 3480 - Adult Development and Aging
- AGER 4020 - Psychology of Death and Dying or
- PSYC 4020 - Psychology of Death and Dying
- HLTH 2200 - Family Life and Human Sexuality or
- PSYC 4470 - Sexual Behavior


## Minor, 18 hours

All students who select the Lifespan Development concentration are required to complete a minor (18 hours with 6 hours advanced outside the HDFS field). Student must meet with a faculty advisor when they enter this degree program to select and plan for an appropriate minor.

## 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 Toddler Development
- HDFS 3213 - Infant and Toddler Intervention and Education


## Teaching young children (2 years-8 years)

- HDFS 3124 - Child Development
- HDFS 4233 - Guidance of Children and Youth
- EDEC 4243 - Environmental Processes and Assessment


## School-age care and programming

- HDFS 3124 - Child Development
- HDFS 4133 - Adolescent Development


## Adolescents

- HDFS 4133 - Adolescent Development


## 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, BS (teacher certification)

*Name change pending approval of the Texas Higher Education Coordinating Board.

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 Academics section of this catalog and the College of Education requirements.

## Major requirements

## Human Development and Family Science certificate, 55 hours

- HDFS 1013 - Human Development
- HDFS 1023 - Assessment and Observation
- HDFS 2033 - Parenting in Diverse Families
- HDFS 2313 - Courtship and Marriage
- HDFS 3113 - Infant and Toddler Development
- HDFS 3123 - Child Development
- HDFS 3213 - Infant and Toddler Intervention and Education
- HDFS 3313 - Interpersonal Relationships
- HDFS 3423 - Family, School and Community
- HDFS 4011 - Pre-Internship
- HDFS 4133 - Adolescent Development
- 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
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- HMGT 1450 - Principles of Nutrition
- CMHT 4750 - Managing a Diverse Workforce


## Family and Consumer Sciences certificate, 64 hours

- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- HDFS 2313 - Courtship and Marriage
- HDFS 3113 - Infant and Toddler Development
- HDFS 3123 - Child Development
- 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
- EDEC 4243 - Environmental Processes and Assessment
- HFMD 2400 - Introduction to the Furniture Industry
- HMGT 1420 - Food Sanitation
- HMGT 1450 - Principles of Nutrition
- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 3250-Restaurant Operations I
- HMGT 3700 - Hotel Operations
- MDSE 3250 - Product Development II
- MDSE 2650-Textiles for Apparel
- MDSE 3750-Consumer Studies
- CMHT 4750 - Managing a Diverse Workforce


## 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. minimum THEA scores of 240 reading, 230 math and 220 writing or exemptions based on SAT, ACT or TAKS/TAAS/STAAR scores;
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 www.coe.unt.edu/sao for additional information.

## Professional education requirements, 21 hours

## Pedagogy, 12 hours

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4840 - Instructional Strategies and Classroom Management


## Reading/English/language arts, 3 hours

- EDSE 4060 - Content Area Reading in Secondary Schools

Internship (student teaching), 6 hours

- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 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

## *Name change pending approval of the Texas Higher Education Coordinating Board.

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 course work may apply for admission into the grad track program in educational psychology by submitting the following:

1. Official GRE scores: verbal, quantitative, and analytical writing. The department views higher GRE scores as positive indicators of potential success in the program. However, lower GRE scores do not exclude a candidate who shows positive indicators in other areas. GRE scores must be sent electronically from ETS, institutional code 6481.
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 references, 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 course work toward their undergraduate degree program. This official notification is required for taking graduate-level courses.

## Program policies

All undergraduate students who have been accepted into the grad track degree program must complete all of the 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.

In addition to meeting the requirements of the undergraduate degree, students in the grad track program are required to maintain an overall undergraduate GPA of 3.0 while in the accelerated program. Students failing to meet this requirement will be dismissed from the grad track program (but retain the courses in their undergraduate degrees).

Please see the Graduate Catalog or department web page for additional requirements for the BS and MS degrees.

## Program requirements

Students seeking a master's concentration in Family Science will take the following courses in the grad track option:

- EPSY 5050 - Foundations of Educational Research Methodology
- EPSY 5323 - Parent and Family Education
- EPSY 5413 - Family Relationships
- EPSY 5443 - Family Economics and Management

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 Child Life will take the following courses in the grad track option:

- EPSY 5050 - Foundations of Educational Research Methodology
- EPSY 5133 - Infant and Child Development
- EPSY 5143 - Advanced Adolescent Development
- EPSY 5213 - Child Life Seminar

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 apply for admission in to the grad track option by:

- applying to the educational psychology department,
- one of the following two options:

O submitting official GRE scores to the department or
O successfully completing a critical writing and analysis task, as well as completing a personal interview; both of which are administered by the Department of Educational Psychology

## Program policies

Students with an overall GPA of 3.25 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 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 science, child life or learning and development.

Students admitted into the grad track option must earn a grade of B 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 science will take the following courses in the grad track option:

- EPSY 5050 - Foundations of Educational Research Methodology
- EPSY 5323 - Parent and Family Education
- EPSY 5413 - Family Relationships
- EPSY 5443 - Family Economics and Management

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 child life will take the following courses in the grad track option:

- EPSY 5050 - Foundations of Educational Research Methodology
- EPSY 5133 - Infant and Child Development
- EPSY 5143 - Advanced Adolescent Development
- EPSY 5213 - Child Life Seminar

For the remainder of the minor requirements, please contact the Department of Educational Psychology.

## Minors

## Development and Family Studies minor

An 18-hour minor (6 of which are advanced hours) in development and family studies 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 development and family studies as a minor must meet prerequisite requirements for courses.

## Special education minor

The special education minor is available to undergraduate students working toward a bachelor's degree. Because of its compatability with other human service fields, special education provides an appropriate minor for students majoring in such areas as rehabilitation, speech and hearing science, behavior analysis, psychology, criminal justice, social work, recreation, kinesiology, and human development and family science.

Students minoring in special education must take a minimum of 18 semester hours to complete the minor, with at least 6 hours of advanced work (3000- or 4000-level). Minors must observe the system of prerequisites for courses. Departmental advisors are available for consultation on the minor in special education. Contact the College of Education Advising Office at (940) 565-2736 or the Educational Psychology Office at (940) 565-4646. Certain courses are recommended depending on the student's major.

## Required courses

A minor in special education requires 18 semester hours from the following, with EPSY advisor's approval:

- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 3240 - Family Collaboration for Exceptional Learners
- EDSP 3410 - Developmental Disabilities and Autism: Identification and Intervention
- EDSP 3420 - Behavioral Disorders: Characteristics, Identification and Intervention
- 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 4360 - Transition Education and Services for Exceptional Learners


# Department of Kinesiology, Health Promotion and Recreation 

Main Office<br>Physical Education Building, Room 209<br>Mailing address:<br>1155 Union Circle \#310769<br>Denton, TX 76203-5017<br>940-565-2651<br>Fax: 940-565-4904<br>Web site: www.coe.unt.edu/khpr<br>\section*{Allen Jackson, Chair}<br>\section*{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 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.

## 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

[^6]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 (www.coe.unt.edu/khpr).

## Health Promotion

## Main Office

Physical Education Building, Room 209
940-565-2651

The health promotion 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).

The Health Promotion division of the Department of Kinesiology, Health Promotion and Recreation has added a Bachelor of Science degree in public health, in addition to the Bachelor of Science with a major in Health Promotion (Community/Corporate tracks). This new degree supports a developing, collaborative relationship with the University of North Texas Health Science Center (UNTHSC) School of Public Health. The new Bachelor of Science with a major in public health meets or exceeds accreditation requirements of the Council for Education in Public Health (CEPH).

The Bachelor of Science with a major in public health offers an interdisciplinary experience across colleges and departments at the University of North Texas at Denton. The Bachelor of Science with a major in public health offers flexibility and a variety of options in the job marketplace due to its diverse curriculum.

The Bachelor of Science degree in public health offers a public health core, with tracks in either population studies (humanities) or biological sciences. The curriculum offers opportunities for students interested in pursuing careers in clinical professions (medicine, dentistry, nursing, etc.) as well as in public health.

## 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 (www.coe.unt.edu/khpr).

## Recreation, Event and Sport Management

Main Office<br>Physical Education Building, Room 209<br>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 (www.coe.unt.edu/khpr).

## Majors

## Health Promotion with a Community Health track, BS (non-teacher certification)

The Bachelor of Science with a major in health promotion teaches you health principles so you can assist others in living a healthy lifestyle. The curriculum explores a wide range of areas including epidemiology, consumer health, health communication and program planning.

## 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 "General university requirements" in the Academics section of this catalog and the College of Education requirements.

## Major requirements

## All health promotion majors

- 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
- COMM 2020 - Interpersonal Communication
or
- COMM 2040 - Public Speaking
- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
- PHED 1000-Scientific Principles and Practices of Health-Related Fitness


## Health promotion core courses, 39 hours

- AGER 4800 - The Social Context of Aging: Global Perspectives
- HLTH 1900 - Principles of Health
- HLTH 2100 - Mental Health
- HLTH 2200 - Family Life and Human Sexuality
- HLTH 3300 - Health Emergencies and First Aid
- HLTH 3110 - Health Promotion: Development and Application of Presentation Skills
- HLTH 3120 - Drugs and Human Health
- HLTH 3130 - Health Promotion Skills and Competencies
- HLTH 4430 - Planning, Administration and Evaluation of Health Programs
- HLTH 4600 - Behavioral Change Strategies in Health Promotion
- HLTH 4850 - Internship in Community Health Promotion (6 hours) (Internship will serve as the Capstone experience for students on the Community Health track)
- HMGT 1450 - Principles of Nutrition


## Community health track, 18 hours

- COUN 2620 - Diversity and Cultural Awareness
- HLTH 1100 - School and Community Health Problems and Services
- HLTH 1570 - Environmental Health and Safety
- HLTH 3100 - Epidemiology of Communicable and Non-Communicable Disease
- PSYC 3620 - Developmental Psychology
- PSYC 4020 - Psychology of Death and Dying


## Minor

Students on the community health track will have a minor in communication studies. This is an 18 -hour minor with at least 6 hours at the 3000 4000 level.

## Required, 9 hours

- COMM 2020-Interpersonal Communication
- COMM 3720 - Small Group Communication
- COMM 3920- Organizational Communication


## Remaining 9 hours

Students may select the remaining 9 hours from the following courses:

- COMM 3120 - Nonverbal Communication
- COMM 3220-Health Communication
- COMM 3320 - Communication and Conflict Management
- COMM 3420-Communication and New Technology
- COMM 3520 - Advanced Interpersonal Communication
- COMM 3620- Intercultural Communication
- COMM 4020-Communication Theory
- COMM 4140-Gender and Communication
- COMM 4420-Communication and Relational Development
- COMM 4829- Topics in Interpersonal/Organizational Studies


## Additional elective courses, 3 hours

Students on the community health track will take 3 hours from the following courses:

- AGER 4020 - Psychology of Death and Dying
- EADP 3010 - Introduction to Emergency Management
- EADP 4010 - Public Health and Disasters
- EADP 4050 - Special Populations and Disasters
- HLTH 4500 - Leadership and Professional Proficiency in Health Promotion
- KINE 3020 - Movement for Special Populations
- KINE 3050 - Biomechanics
- KINE 4320 - Exercise Testing and Prescription
- KINE 4330 - Sport Nutrition and Metabolism
- PACS 4220 - Proposal Writing and Grants Administration
- PACS 4260 - Volunteer Program Planning and Evaluation
- PSYC 3620 - Developmental Psychology
- PSYC 4670 - Behavioral and Biopsychosocial Challenges within LGBT Communities
- SOCI 3110 - Sociology of Mental Health, Mental Illness and Mental Health Care
- SOWK 4540 - Human Diversity for the Helping Professions
- WGST 2100 - Introduction to Women's and Gender Studies


## Electives

See official degree audit for elective requirements for the community health track.

## Other requirements

A minimum grade of $C$ is required in each course of the major; a minimum overall GPA of 2.0; a minimum UNT GPA of 2.0; a minimum GPA of 2.75 in the major is required for graduation. (Overall GPA includes all course work transferred plus that taken at UNT.)

## Health Promotion with a Corporate Health track, BS (non-teacher certification)

The Bachelor of Science with a major in health promotion teaches you health principles so you can assist others in living a healthy lifestyle. The curriculum explores a wide range of areas including epidemiology, consumer health, health communication and program planning.

## 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 "General university requirements" in the Academics section of this catalog and the College of Education requirements.

## Major requirements

## All health promotion majors

- 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
- COMM 2020 - Interpersonal Communication or
- COMM 2040-Public Speaking
- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
- PHED 1000 - Scientific Principles and Practices of Health-Related Fitness


## Health promotion core courses, 39 hours

- AGER 4800 - The Social Context of Aging: Global Perspectives
- HLTH 1900 - Principles of Health
- HLTH 2100 - Mental Health
- HLTH 2200 - Family Life and Human Sexuality
- HLTH 3300-Health Emergencies and First Aid
- HLTH 3110-Health Promotion: Development and Application of Presentation Skills
- HLTH 3120 - Drugs and Human Health
- HLTH 3130 - Health Promotion Skills and Competencies
- HLTH 4430 - Planning, Administration and Evaluation of Health Programs
- HLTH 4600 - Behavioral Change Strategies in Health Promotion
- HLTH 4850 - Internship in Community Health Promotion (6 hours) (Internship will serve as the Capstone experience for students on the Corporate Health track)
- HMGT 1450 - Principles of Nutrition


## Corporate health track, 18 hours

- HLTH 4300 - Health Promotion in the Corporate Setting
- KINE 3080 - Physiological Bases of Exercise and Sport
- KINE 4300 - Exercise Leadership
- KINE 4320 - Exercise Testing and Prescription
- RESM 4050 - Management Perspectives in the Recreation, Event and Sport Industries
- RESM 4180-Planning, Designing, Maintaining RESM Facilities and Areas


## Minor

Students on the corporate health track will have a minor in marketing. This is an 18-hour minor with at least 6 hours at the 3000-4000 level.

## Required, 3 hours

- MKTG 3650 - Foundations of Marketing Practice


## Remaining 15 hours

Students may select the remaining 15 hours from the following courses:

- MKTG 3010 - Professional Selling
- MKTG 3660 - Advertising Management
- MKTG 3700 - Marketing Metrics
- MKTG 4120-Consumer Behavior
- MKTG 4280-Global Marketing Issues and Practice
- MKTG 4750-Services Marketing


## Health elective courses, 3 hours

Students on the corporate health track will take 3 hours from the following courses:

- AGER 4020 - Psychology of Death and Dying
- EADP 3010 - Introduction to Emergency Management
- EADP 4010 - Public Health and Disasters
- EADP 4050 - Special Populations and Disasters
- HLTH 4500 - Leadership and Professional Proficiency in Health Promotion
- KINE 3020 - Movement for Special Populations
- KINE 3050-Biomechanics
- KINE 4320 - Exercise Testing and Prescription
- KINE 4330 - Sport Nutrition and Metabolism
- PACS 4220 - Proposal Writing and Grants Administration
- PACS 4260 - Volunteer Program Planning and Evaluation
- PSYC 3620 - Developmental Psychology
- PSYC 4670 - Behavioral and Biopsychosocial Challenges within LGBT Communities
- SOCI 3110-Sociology of Mental Health, Mental Illness and Mental Health Care
- SOWK 4540 - Human Diversity for the Helping Professions
- WGST 2100 - Introduction to Women's and Gender Studies


## Electives

See official degree audit for elective requirements for the corporate health track.

## Other requirements

A minimum grade of C is required in each course of the major; a minimum overall GPA of 2.0; a minimum UNT GPA of 2.0; a minimum GPA of 2.75 in the major is required for graduation. (Overall GPA includes all course work transferred plus that taken at UNT.)

## Kinesiology, BS (Allied Health pre-professional track)

## Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in kinesiology (allied health pre-professional 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 Academics section of this catalog and the College of Education requirements.

## Major requirements

## Theory core, 24 hours

- KINE 2030 - Introduction to Kinesiology
- KINE 2050 - Sociology of Sport
- KINE 3020-Movement for Special Populations
- 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


## Kinesiology courses, 15 hours

- KINE 4200 - Basic Athletic Training
- KINE 4250 - Advanced Athletic Training
- KINE 4260 - Principles of Rehabilitation and Therapeutic Modalities
- KINE 4300 - Exercise Leadership
- KINE 4320 - Exercise Testing and Prescription


## Health promotion courses, 6 hours

- HLTH 3300 - Health Emergencies and First Aid
- HLTH 4600 - Behavioral Change Strategies in Health Promotion


## Chemistry, 8 hours

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry


## 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


## Biology, 16 hours

- BIOL 1710 - Biology for Science Majors I and
- 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


## Capstone course, 3 hours

- RESM 4150 - Professional Development and Capstone Experience in Leisure, Sport and Wellness Related Professions (may be used to satisfy the Capstone requirement of the University Core Curriculum)


## Other course requirements

- MATH 1680 - Elementary Probability and Statistics (may be used to satisfy the Mathematics requirement of the University Core Curriculum)
- PHED 1000-Scientific Principles and Practices of Health-Related Fitness (may be used to satisfy the Discovery requirement of the University Core Curriculum)


## Minor

None required.

## Electives

See degree plan.
KINE 4860 - Internship may be taken as an elective. Prerequisites for KINE 4860 are a minimum of 3.25 GPA in the Kinesiology core courses (KINE 3020, KINE 3050, KINE 3080, KINE 3090, KINE 4000 and KINE 4050), and consent of department and successful completion of the University core courses.

## Other requirements

- 12 hours of KINE must be taken at UNT.
- 42 hours must be advanced; 24 of which must be taken at UNT.

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.)

All majors: A minimum grade of C is required in MATH 1680. 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.

## 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 (Athletic Training 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. This track emphasizes athletic training techniques and theory.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in kinesiology (athletic training 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 the "General university requirements" in the Academics section of this catalog and the College of Education requirements.

## Major 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:

- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
- ENGL 2211 - Survey of World Literatures from Antiquity to 1700
- ENGL 2220 - Survey of World Literatures from 1700 to the Present
- ENGL 2221 - Survey of World Literatures from 1700 to the Present
- ENGL 2322 - British Literature to 1780
- ENGL 2323 - British Literature 1780 to Present
- ENGL 2327 - American Literature to 1870
- ENGL 2328 - American Literature from 1870 to Present


## 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 Special Populations
- 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 - Professional Development and Capstone Experience in Leisure, Sport and Wellness Related Professions (may be used to satisfy the Capstone requirement of the University Core Curriculum)


## 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 - Women's Intermediate Basketball
- PHED 1711 - Men's Intermediate Basketball


## Section B

- PHED 1780 - Women's Beginning Volleyball
- PHED 1781 - Men's Beginning Volleyball
- PHED 1790 - Women's Intermediate Volleyball
- PHED 1791 - Men's Intermediate Volleyball


## Section C

- PHED 1740 - Women's Soccer
- PHED 1741 - Men's Soccer
- PHED 1770 - Touch Football


## Other kinesiology requirements

## Athletic training track, 12 hours

- HLTH 3300 - Health Emergencies and First Aid
- KINE 4200 - Basic Athletic Training
- KINE 4250 - Advanced Athletic Training
- KINE 4260 - Principles of Rehabilitation and Therapeutic Modalities


## 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.

## Other requirements

- A minimum grade of $C$ is required in each course in the major; a minimum GPA of 2.75 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.

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

## Athletic training

1800 internship hours during university enrollment (to be administered through the North Texas Athletic Training Program).

## 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 "General university requirements" in the Academics section 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:

- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
- ENGL 2211 - Survey of World Literatures from Antiquity to 1700
- ENGL 2220 - Survey of World Literatures from 1700 to the Present
- ENGL 2221 - Survey of World Literatures from 1700 to the Present
- ENGL 2322 - British Literature to 1780
- ENGL 2323 - British Literature 1780 to Present
- ENGL 2327 - American Literature to 1870
- ENGL 2328 - American Literature from 1870 to Present


## 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 Special Populations
- 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 - Professional Development and Capstone Experience in Leisure, Sport and Wellness Related Professions (may be used to satisfy the Capstone requirement of the University Core Curriculum)


## 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 - Women's Intermediate Basketball
- PHED 1711 - Men's Intermediate Basketball


## Section B

- PHED 1780 - Women's Beginning Volleyball
- PHED 1781 - Men's Beginning Volleyball
- PHED 1790 - Women's Intermediate Volleyball
- PHED 1791 - Men's Intermediate Volleyball


## Section C

- PHED 1740 - Women's 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 - Planning, Designing, Maintaining RESM Facilities and Areas
- 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 ( 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 "General university requirements" in the Academics section 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:

- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
- ENGL 2211 - Survey of World Literatures from Antiquity to 1700
- ENGL 2220 - Survey of World Literatures from 1700 to the Present
- ENGL 2221 - Survey of World Literatures from 1700 to the Present
- ENGL 2322 - British Literature to 1780
- ENGL 2323 - British Literature 1780 to Present
- ENGL 2327 - American Literature to 1870
- ENGL 2328 - American Literature from 1870 to Present


## Theory Core, 24 hours

- KINE 2030 - Introduction to Kinesiology
- KINE 2050 - Sociology of Sport
- KINE 3020 - Movement for Special Populations
- 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 (This course will serve as the Capstone experience for students on the General track.)


## 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 - Women's Intermediate Basketball
- PHED 1711 - Men's Intermediate Basketball


## Section B

- PHED 1780 - Women's Beginning Volleyball
- PHED 1781 - Men's Beginning Volleyball
- PHED 1790 - Women's Intermediate Volleyball
- PHED 1791 - Men's Intermediate Volleyball


## Section C

- PHED 1740 - Women's Soccer
- PHED 1741 - Men's Soccer
- PHED 1770-Touch Football


## Other kinesiology requirements

- HLTH 2200 - Family Life and Human Sexuality


## General interest area, 15 hours

Students select 15 hours from the following kinesiology electives:

## Athletics/coaching

- KINE 2220 - Coaching Volleyball
- KINE 2230-Coaching Football
- KINE 2240-Coaching Soccer
- KINE 2250-Coaching of Track and Field
- KINE 3200-Coaching Basketball
- KINE 3250-Coaching Individual Sports
- KINE 4200 - Basic Athletic Training


## Health fitness

- KINE 4300 - Exercise Leadership
- KINE 4320 - Exercise Testing and Prescription


## Sport management

- KINE 3400-Administrative Theory and Practice in Athletic and Sport Regulatory Organizations
- KINE 4410 - Facilities, Equipment and Budget for Athletics


## Youth

- KINE 3500 - Motor Development
- KINE 3540 - Learning and Teaching in Physical Activity
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- KINE 3560 - Pedagogical Skills, Strategies and Management in Secondary Physical Education
- KINE 4800 - Studies in Kinesiology


## Internship

- KINE 4860 - Internship in Kinesiology


## 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.)
- $\quad 12$ 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 (Health Fitness 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 heath fitness track, you prepare for fitness-related careers and research.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in kinesiology (health fitness 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 the "General university requirements" in the Academics section of this catalog and the College of Education requirements.

## Major 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:

- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
- ENGL 2211 - Survey of World Literatures from Antiquity to 1700
- ENGL 2220 - Survey of World Literatures from 1700 to the Present
- ENGL 2221 - Survey of World Literatures from 1700 to the Present
- ENGL 2322 - British Literature to 1780
- ENGL 2323 - British Literature 1780 to Present
- ENGL 2327 - American Literature to 1870
- ENGL 2328 - American Literature from 1870 to Present


## 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 Special Populations
- 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 - Professional Development and Capstone Experience in Leisure, Sport and Wellness Related Professions (may be used to satisfy the Capstone requirement of the University Core Curriculum)


## 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 - Women's Intermediate Basketball
- PHED 1711 - Men's Intermediate Basketball


## Section B

- PHED 1780 - Women's Beginning Volleyball
- PHED 1781 - Men's Beginning Volleyball
- PHED 1790 - Women's Intermediate Volleyball
- PHED 1791 - Men's Intermediate Volleyball


## Section C

- PHED 1740 - Women's Soccer
- PHED 1741 - Men's Soccer
- PHED 1770 - Touch Football


## Other kinesiology requirements

## Health fitness area, 9 hours

Note: KINE 3080 is a prerequisite to KINE 4300 and KINE 4320, and students must complete KINE 3080 prior to enrolling in these courses.

- KINE 4300 - Exercise Leadership
- KINE 4320 - Exercise Testing and Prescription
- Plus 3 hours selected from the following non-teacher certification kinesiology electives


## Athletics/coaching

- KINE 2220 - Coaching Volleyball
- KINE 2230 - Coaching Football
- KINE 2240-Coaching Soccer
- KINE 2250-Coaching of Track and Field
- KINE 3200-Coaching Basketball
- KINE 3250-Coaching Individual Sports
- KINE 4200 - Basic Athletic Training


## Sport management

- KINE 3400 - Administrative Theory and Practice in Athletic and Sport Regulatory Organizations
- KINE 4410 - Facilities, Equipment and Budget for Athletics


## Youth

- KINE 3500-Motor Development
- KINE 3540 - Learning and Teaching in Physical Activity
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children


## Children

- KINE 3560 - Pedagogical Skills, Strategies and Management in Secondary Physical Education
- KINE 4860 - Internship in Kinesiology


## Other course requirements

Health fitness area, 12 hours

12 hours of cognate courses

- HMGT 1450-Principles of Nutrition
- RESM 3050 - Programming in Recreation, Event and Sport Services
- RESM 4050 - Management Perspectives in the Recreation, Event and Sport Industries
- RESM 4060 - Therapeutic Activity Intervention and Aging


## Minor

## Health fitness area

## Minor in health promotion:

- HLTH 1900 - Principles of Health
- HLTH 3300 - Health Emergencies and First Aid
- HLTH 3100 - Epidemiology of Communicable and Non-Communicable Disease
- HLTH 4430 - Planning, Administration and Evaluation of Health Programs
- HLTH 4300 - Health Promotion in the Corporate Setting
- HLTH 4600 - Behavioral Change Strategies in Health Promotion


## Electives

## Health fitness area

Non-teacher certification students selecting the health fitness interest area must complete 8 hours of electives.

## Other requirements

- A minimum grade of $C$ is required in each course in the major; a minimum GPA of 2.75 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.

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 (teacher certification)


#### Abstract

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. You will also graduate prepared to take the examination for all-level physical education certification. This track requires admission to the Teacher Education program.


## Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in kinesiology (teacher certification).

## 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 the "University Core Curriculum" in the Academics section of this catalog and the College of Education requirements.

## Major 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:

- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
- ENGL 2211 - Survey of World Literatures from Antiquity to 1700
- ENGL 2220 - Survey of World Literatures from 1700 to the Present
- ENGL 2221 - Survey of World Literatures from 1700 to the Present
- ENGL 2322 - British Literature to 1780
- ENGL 2323 - British Literature 1780 to Present
- ENGL 2327 - American Literature to 1870
- ENGL 2328 - American Literature from 1870 to Present


## 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 Special Populations
- 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, 3 hours

- RESM 4150 - Professional Development and Capstone Experience in Leisure, Sport and Wellness Related Professions (may be used to satisfy the Capstone requirement of the University Core Curriculum)


## Physical performance courses, 3 hours

Students must complete a total of 3 courses. (Students are encouraged to select courses that will expand their competence in a variety of physical activities.)

1. At least one course from Group I
2. At least one course from Group II
3. One of the courses must be at the intermediate or advanced level.
4. Only one course can come from each section (i.e., A, B, or C within Group I and within Group II).

## Group I

## Section A

- PHED 1590-Beginning Tennis
- PHED 1600 - Intermediate Tennis
- PHED 1610 - Advanced Tennis


## Section B

- PHED 1500-Beginning Golf
- PHED 1510 - Intermediate Golf


## Section C

- PHED 1440 - Intermediate Badminton
- PHED 1470-Beginning Badminton


## Group II

## Section A

- PHED 1210 - Weight Training
- PHED 1211 - Intermediate Weight Lifting


## Section B

- PHED 1010-Beginning Swimming
- PHED 1030 - Intermediate Swimming
- PHED 1120-Swim Conditioning


## Section C

- PHED 1200-Conditioning Exercises
- PHED 1220 - Jogging
- PHED 1230 - Aerobic Dance
- PHED 1250 - Pilates
- PHED 1260 - Yoga
- PHED 1760 - Ultimate Frisbee


## Other kinesiology requirements, 12 hours

- KINE 3500 - Motor Development
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- KINE 3560 - Pedagogical Skills, Strategies and Management in Secondary Physical Education


## Plus 3 hours selected from

- KINE 2220-Coaching Volleyball
- KINE 2230-Coaching Football
- KINE 3200-Coaching Basketball
- KINE 3250 - Coaching Individual Sports
- KINE 4200 - Basic Athletic Training


## Other course requirements

For all-level teacher certification:

- EDSE 4060 - Content Area Reading in Secondary Schools
- LTEC 1100-Computer Applications


## Plus professional education courses, 18 hours

- HDFS 3123 - Child Development
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4070 - Teaching Diverse Populations
- KINE 4100 - Curriculum and Methods in Kinesiology (Sport Pedagogy)
- KINE 4101 - Early Field Experience Kinesiology Certification
- KINE 4102 - Student Teaching in Physical Education, Grades EC-5
- KINE 4104 - Student Teaching in Physical Education, Grades 6-12


## 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 Education.

## Other requirements

- $\quad 12$ 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 the minor must be advanced.

Following recommendations for courses listed in the University Core Curriculum may be necessary to avoid taking excess hours. Consult the Student Advising Office, Matthews Hall, Room 105, for details.

## 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.

## Teacher education

## Admission to teacher education

- Junior standing (minimum of 60 earned hours)
- A 2.75 overall GPA and a 2.75 UNT GPA
- Acceptable scores on the THEA ( 240 reading, 230 math, and 220 writing) or exemptions based on SAT, ACT or TAKS/TAAS or STAR scores
- Approved online interview questionnaire
- An official degree audit with certification
- A signed Application for Admission to Teacher Education

Contact the College of Education Student Advising Office, 940-565-2736; Matthews Hall, Room 105; or go to www.unt.edu/sao for additional information.

## Completion

To receive final approval for teacher certification:

- Completion of all requirements of an approved 127-hour degree plan.
- Grades of C or better for each kinesiology and each PHED course.
- Minimum 2.75 GPA in each of the following areas: each teaching field, all education courses, all UNT work, overall.
- Successful completion of student teaching (see Eligibility for teacher certification requirements listed under the Department of Teacher Education and Administration in this catalog for details).
- Successful scores on appropriate sections of the Texas Examinations of Educator Standards (TExES).

Students should visit the Student Advising Office in Matthews Hall, Room 105, for additional information regarding degree audits. Questions about student teaching should be addressed to the Clinical Practice Office in Matthews Hall, Room 207. Questions regarding the TExES exam should be addressed to the TExES Advising Office in Matthews Hall, Room 103 (940-369-8601).

Students are encouraged to see their academic or faculty advisor each term/semester for help with program decisions and enrollment.

## Additional information

Prior to completion of the semester of admission to teacher education, students must purchase TK20.

Once admitted the student will take the following teaching courses:

- HDFS 3123 - Child Development
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4070 - Teaching Diverse Populations
- KINE 3500 - Motor Development
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- KINE 3560 - Pedagogical Skills, Strategies and Management in Secondary Physical Education
- KINE 4100 - Curriculum and Methods in Kinesiology (Sport Pedagogy) (offered in the fall only, Early Field Experience [EFE] is part of this course)
- Early Field Experience (must apply for EFE the spring before taking EFE and KINE 4100)

Additional requirements:

Prior to student teaching, students must provide verification of current certifications in First Aid, CPR and Bloodborne Pathogens training. The certifications must be maintained through the duration of student teaching.

Student teaching (KINE 4102 and KINE 4104).
The student may not receive credit for education courses until after admission to teacher education.

KINE 4102 will serve as a capstone for all-level teacher certification students.

| Spring | Fall | Spring | Fall |
| :--- | :--- | :--- | :--- |
| Complete online admission interview, if successful <br> the student must apply for admission this semester <br> or complete an interview again the next semester |  |  | KINE 4100 |
| Complete admission application to teacher <br> education once the student has a successful <br> interview | Back-up application for <br> admission to teacher education | Apply for Early Field <br> Experience | Early Field Experience |

## Public Health, BS

## 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 Academics section of this catalog and the College of Education requirements.

## Major requirements

## Public health core, 21 hours

- EPSY 3013-Reading and Understanding Research
- GEOG 3500-Introduction to Geographic Information Systems
- HLTH 1570 - Environmental Health and Safety
- HLTH 2400 - Introduction to Global Health
- HLTH 3100 - Epidemiology of Communicable and Non-Communicable Disease
- PADM 4450 - Public Policy Analysis
- PSCI 4520 - International Human Rights


## Public health tracks, 12 hours

Students must choose either the Population Studies track or the Biological Sciences track.

## Population studies track

- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- PSYC 2580 - Health Psychology
- SOCI 3120 - Sociology of Health and Illness
- SOCI 4750 - World Population Trends and Problems


## Biological sciences track

- 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 2311 - Human Anatomy and Physiology I Laboratory


## Other course requirements

## English

- TECM 1700 - Introduction to Professional, Science, and Technical Writing
- TECM 2700 - Technical Writing

Math

- MATH 1680 - Elementary Probability and Statistics


## Natural sciences

- BIOL 1082 - Biology for Educators or
- BIOL 1710 - Biology for Science Majors I


## Political science

- PSCI 1040 - American Government: Laws and Institutions
- PSCI 1050 - American Government: Process and Policies


## Social and behavioral sciences

- SOCI 1510 - Introduction to Sociology


## Discovery

- HLTH 2000 - Introduction to Public Health


## Capstone

- RESM 4150 - Professional Development and Capstone Experience in Leisure, Sport and Wellness Related Professions


## Electives, 45 hours

Students from both tracks must choose 15 courses. Nine courses ( 27 hours) must be selected from the list of health courses. The remaining courses (18 hours) must be selected from one of the elective concentrations or determined in consultation with an advisor.

## Health core, 27 hours

Nine courses chosen from the following.

- HLTH 1100 - School and Community Health Problems and Services
- HLTH 1900 - Principles of Health
- HLTH 2100 - Mental Health or
- SOCI 3110 - Sociology of Mental Health, Mental Illness and Mental Health Care
- HLTH 2200 - Family Life and Human Sexuality or
- PSYC 4470 - Sexual Behavior
or
- SOCI 4240 - Sociology of Sexuality
- HLTH 3110 - Health Promotion: Development and Application of Presentation Skills
- HLTH 3120 - Drugs and Human Health
- HLTH 3300 - Health Emergencies and First Aid
- HLTH 4430 - Planning, Administration and Evaluation of Health Programs
- HLTH 4600 - Behavioral Change Strategies in Health Promotion or
- PSYC 2580 - Health Psychology
- HLTH 3130 - Health Promotion Skills and Competencies
- HLTH 4251 - Consumer Health Advocacy
- HLTH 4300 - Health Promotion in the Corporate Setting
- HLTH 4500 - Leadership and Professional Proficiency in Health Promotion
- HLTH 4850 - Internship in Community Health Promotion
- UNTHSC MPH dual enrollment courses for eligible students only-contact your academic advisor.


## Elective concentrations, 18 hours

## Epidemiology

- DSCI 2710 - Data Analysis with Spreadsheets
- GEOG 4120 - Medical Geography
- GEOG 4580 - GIS in Health
- BIOL 4820 - Computational Epidemiology
- GEOG 4410 - Location-Allocation Modeling
- Or other courses approved by an advisor


## Administration

- COMM 2020-Interpersonal Communication
- COMM 3220 - Health Communication
- PADM 3000 - Public Administration
- PADM 3020 - Public Management
- RESM 4050- Management Perspectives in the Recreation, Event and Sport Industries
- PACS 4220 - Proposal Writing and Grants Administration
- Or other courses approved by an advisor


## Emergency and disaster management

- EADP 3010-Introduction to Emergency Management
- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 3045 - Disaster Response and Recovery
- EADP 4010 - Public Health and Disasters
- EADP 4050-Special Populations and Disasters
- EADP 4090-Terrorism and Emergency Management
- Or other courses approved by an advisor


## Biological sciences

- BIOL 1112 - Contemporary Biology
- BIOL 2302 - Human Anatomy and Physiology II
- BIOL 2312 - Human Anatomy and Physiology II Laboratory
- BIOL 3500 - Medical Terminology
- BIOL 4250 - Pharmacology: Biological Basis of Drug Action
- HMGT 1450 - Principles of Nutrition
- BIOL 3350 - Human Heredity
- Courses listed in public health track or approved by an advisor.


## Population studies

- ANTH 4220 - Anthropology in Public Health
- COUN 2620 - Diversity and Cultural Awareness
or
- HDFS 3153 - The Impact of Culture on Individuals and Families
- HLTH 2200 - Family Life and Human Sexuality (if not taken in HLTH core)
- SOCI 3120 - Sociology of Health and Illness
- SOCI 3560 - Sociology of Disasters
- SOCI 4550 - Sociology of Aging
- Courses listed in public health track or approved by an advisor


## Recreation, Event and Sport Management, BS (Program Management track)

A Bachelor of Science with a major in recreation, event and sport management and a focus on program management can prepare you for entry-level positions in practically all aspects of the sports and recreation services industry.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in recreation, event and sport management (program management 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 "General university requirements" in the Academics section of this catalog and the College of Education requirements.

## Recreation, Event, and Sport Management, 39 hours

- RESM 1950 - Foundations of Recreation, Event and Sport Professions
- RESM 2150 - Leadership in Recreation, Event and Sport Management
- RESM 2550 - Diversity and the Environment in the RESM Professions
- RESM 3050 - Programming in Recreation, Event and Sport Services
- RESM 3450 - Diversity in Recreation, Event and Sport Services
- RESM 4050 - Management Perspectives in the Recreation, Event and Sport Industries
- RESM 4080-Legal Dimensions of the Recreation, Event and Sport Industries
- RESM 4160 - Evaluation of Recreation, Event and Sport Services
- RESM 4180 - Planning, Designing, Maintaining RESM Facilities and Areas


## Plus 12 hours from

Students in the Program Management and Sport Management tracks take the following 12 hours.

- RESM 4070-Staffing Perspectives in Recreation, Event and Sport Organization
- RESM 4190 - Fiscal Administration in Recreation, Event and Sport Services
- RESM 4200-Commercial Recreation, Event and Sport Enterprises
- RESM 4340 - Event Production in the Recreation, Event and Sport Industries


## Other course requirements

- HDFS 1013 - Human Development
- COMM 2040 - Public Speaking (may also satisfy the Discovery requirement of the University Core Curriculum)
- PHED 1000 - Scientific Principles and Practices of Health-Related Fitness


## Minor requirements

## Program management interest area

18 hours (6 advanced) in a field outside of recreation, event and sport management, chosen in consultation with an advisor.

## Electives

$0-2$ hours chosen in consultation with an advisor.

## Other requirements

- A minimum grade of $C$ is required in each RECR course, and a 2.5 GPA is required on courses in the major.
- 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.


## Internship

a. Each recreation, event and sport management student is required to complete a total of 15 credit hours of internship and professional development [12 credit hours on-site experience (RECR 4100) and RECR 4150].
b. Program management and sport management students must complete a minimum of 480 clock hours to meet this requirement.
c. RECR 4100 - Internship in Recreation, Parks and Leisure Services ( 12 hours) is required of all majors in an approved setting appropriate for their career interest area. The student must meet several requirements prior to enrollment in this course, including:

- Completion of the required recreation major courses;
- A minimum of 2.25 overall GPA; a minimum of 2.50 GPA in all recreation courses with a $C$ or better in each recreation course;
- Verification of 400 hours of paid or voluntary experience in a recreation, park, or leisure service agency within the past 48 months; and
- Departmental permission to enroll in the course.

The internship is typically a 30 - to 40 -hours per week affiliation with an approved agency. It is usually taken during the last term/semester.

## Note

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.

## Recreation, Event and Sport Management, BS (Sport Management track)

A Bachelor of Science with a major in recreation, event and sport management and a focus on sport management can prepare you for entry-level positions in practically all aspects of the sports and recreation services industry. It also prepares you to work in the professional sports industry.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Science with a major in recreation, event and sport management (sport management track).

## Hours required and general/college requirements

## Recreation, Event, and Sport Management, 39 hours

- RESM 1950 - Foundations of Recreation, Event and Sport Professions
- RESM 2150 - Leadership in Recreation, Event and Sport Management
- RESM 2550 - Diversity and the Environment in the RESM Professions
- RESM 3050 - Programming in Recreation, Event and Sport Services
- RESM 3450 - Diversity in Recreation, Event and Sport Services
- RESM 4050 - Management Perspectives in the Recreation, Event and Sport Industries
- RESM 4080 - Legal Dimensions of the Recreation, Event and Sport Industries
- RESM 4160 - Evaluation of Recreation, Event and Sport Services
- RESM 4180 - Planning, Designing, Maintaining RESM Facilities and Areas


## Plus 12 hours from

Students in the Program Management and Sport Management tracks take the following 12 hours.

- RESM 4070-Staffing Perspectives in Recreation, Event and Sport Organization
- RESM 4190 - Fiscal Administration in Recreation, Event and Sport Services
- RESM 4200-Commercial Recreation, Event and Sport Enterprises
- RESM 4340 - Event Production in the Recreation, Event and Sport Industries


## Other course requirements

- HDFS 1013 - Human Development
- COMM 2040 - Public Speaking (may also satisfy the Discovery requirement of the University Core Curriculum)
- PHED 1000 - Scientific Principles and Practices of Health-Related Fitness


## Minor

## Sport Management interest area, 18 hours

## Complete the following five courses, 15 hours

- ACCT 2010-Accounting Principles I (Financial Accounting)
- KINE 2050 - Sociology of Sport
- KINE 3400 - Administrative Theory and Practice in Athletic and Sport Regulatory Organizations
- KINE 4000 - Psychology of Sport
- MKTG 3650 - Foundations of Marketing Practice

Plus one course from the following list, 3 hours

- KINE 2220 - Coaching Volleyball
- KINE 2230-Coaching Football
- KINE 2250 - Coaching of Track and Field
- KINE 3200 - Coaching Basketball
- KINE 3250-Coaching Individual Sports


## Electives

$0-2$ hours chosen in consultation with an advisor.

## Other requirements

- A minimum grade of $C$ is required in each RECR course, and a 2.5 GPA is required on courses in the major.
- 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.


## Internship

a. Each recreation, event and sport management student is required to complete a total of 15 credit hours of internship and professional development [12 credit hours on-site experience (RESM 4100) and RESM 4150].
b. Sport management students must complete a minimum of 480 clock hours to meet this requirement.
c. Therapeutic recreation students must complete 600 hours during 15 consecutive weeks, necessitating internship during a fall or spring term/semester.
d. RESM 4100 (12 hours) is required of all majors in an approved setting appropriate for their career interest area. The student must meet several requirements prior to enrollment in this course, including:

- Completion of the required RECR major courses;
- A minimum of 2.25 overall GPA; a minimum of 2.50 GPA in all RECR courses with a $C$ or better in each RECR course;
- Verification of 400 hours of paid or voluntary experience in a recreation, sport, park, or leisure service agency within the past 48 months; and
- Departmental permission to enroll in the course.

The internship is typically a 30- to 40 -hours-per-week affiliation with an approved agency. It is usually taken during the last term/semester.

## Note

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.

## Grad Track Options

## Kinesiology, BS with grad track option leading to Kinesiology, MS

The Department of Kinesiology, Health Promotion and Recreation offers a grad track option for existing UNT undergraduate students majoring in kinesiology. In this grad track option, the student can take a maximum of twelve (12) hours of graduate courses while completing the BS degree. These credits will be counted toward both the BS and MS degrees. 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 must earn a 3.5 or higher GPA on all undergraduate work and have completed 75 hours, including BIOL 2301/BIOL 2311 and BIOL 2302/BIOL 2312, KINE 3050, as well as the pre-theory core in Kinesiology (PHED 1000, KINE 2030 and KINE 2050) with a 3.0 overall in those pre-theory core classes in order to be admitted to this program.

A student who fails to maintain the 3.5 GPA will not be allowed to enroll in the master's level courses.

Students who are applying for the Grad Track Pathway in kinesiology are not required to take the GRE.

Students are required to submit a candidate statement. The candidate statement is an essay in which students describe their interest in enrolling in the Grad Track Pathway in kinesiology. The statement must include reasons for applying to this program, academic goals, career goals, research interests, etc.

## Program policies

Students' applications to the Grad Track Pathway in kinesiology will be reviewed by the kinesiology undergraduate and graduate program coordinators, and students will be admitted only when approved by both program coordinators.

Students' progress will be monitored by both undergraduate and graduate kinesiology program coordinators (before completing the BS degree) and the graduate program coordinator in kinesiology (after completing the BS degree).

Students will be considered undergraduate students until all undergraduate requirements have been met and the bachelor's degree has been posted to the student's transcript. Students will not be eligible for teaching and research assistantships, or related health insurance, financial aid or graduate awards, until the undergraduate degree is completed.

Undergraduate students who have been accepted to the Grad Track option should complete all bachelor's degree requirements and graduate within 12 months of the first day of the semester for which they start taking graduate courses or enrollment in graduate level course work will be suspended.

Students must enroll in graduate school in the long semester after completing their BS degree and should take the remaining graduate courses in the following year(s) to complete the master's degree.

## Program requirements

- KINE 5090 - Motor Behavior
- KINE 5100 - Research Perspectives in Kinesiology, Health Promotion and Recreation


## 6 hours may be chosen from the following

- KINE 5125 - Sport and Exercise Psychology
- KINE 5150 - Quantitative procedures in Exercise and Sport Sciences
- KINE 5301 - Physiology of Exercise

| Final year of bachelor's degree |  |
| :---: | :---: |
| Fall | Spring |
| KINE graduate course: KINE 5100 | KINE graduate course: KINE 5150 or elective |
| KINE graduate course: KINE 5125 or KINE 5301 | KINE graduate course: KINE 5090 |
| UG class: KINE theory core course completion or KINE elective/required for track | UG class: KINE theory core course for BS completion or KINE elective/required for track |
| UG class: KINE theory core course for BS completion or KINE elective/required for track | UG class: KINE theory core course for BS completion or KINE elective/required for track |
| UG class: KINE theory core course for BS completion or KINE elective/required for track | UG class: KINE theory core course for BS completion or KINE elective/required for track |
| First year of master's degree |  |


| Fall | Spring |
| :--- | :--- |
| KINE graduate course: KINE 5125 or KINE 5301 | KINE graduate course: KINE 5150 or elective |
| KINE graduate course: Elective | KINE graduate course: Elective |
| KINE graduate course: Elective | KINE graduate course: Elective |
| Graduate course if 36 credit hours | Graduate course if 36 credit hours |

For the remainder of the bachelor's degree requirements, please see the appropriate kinesiology degree. A complete listing of the kinesiology degrees may be found on the Department of Kinesiology, Health Promotion and Recreation page.

## 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 Special Populations
- 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 and Leisure Studies minor

## Major courses, 6 hours

- RESM 1950 - Foundations of Recreation, Event and Sport Professions
- RESM 2550 - Diversity and the Environment in the RESM Professions


## Career interest sequence, 12 hours

12 hours from the appropriate career interest sequence, in consultation with the program coordinator.

- RESM 2150 - Leadership in Recreation, Event and Sport Management
- RESM 3050 - Programming in Recreation, Event and Sport Services
- RESM 4050 - Management Perspectives in the Recreation, Event and Sport Industries
- RESM 4180 - Planning, Designing, Maintaining RESM Facilities and Areas or
- RESM 3500 - Foundations of Therapeutic Recreation
- RESM 4060 - Therapeutic Activity Intervention and Aging
- RESM 4560 - Therapeutic Recreation Program Planning
- RESM 4760 - Facilitation Techniques in Therapeutic Recreation


## Additional requirements

A minimum grade of C is required in each course in the minor.

## Department of Teacher Education and Administration

Main Office<br>Matthews Hall, Room 206<br>Mailing address:<br>1155 Union Circle \#310740<br>Denton, TX 76203-5017<br>940-565-2920<br>Fax: 940-565-4952<br>Web site: www.coe.unt.edu/tea<br>Bilingual and ESL Education<br>Matthews Hall, Room 206<br>940-565-2931<br>Curriculum and Instruction<br>Reading Education<br>Matthews Hall, Room 218<br>940-565-2922<br>Office of Teacher Preparation<br>Elementary and Secondary Certification<br>Matthews Hall, Room 204<br>940-565-2826

Educational Leadership
Matthews Hall, Room 218
940-565-2175

Field Experiences (PDS I and II, Student Teaching)
Matthews Hall, Room 204
940-565-4226

Student Advising Office
Matthews Hall, Room 105
940-565-2736

## James Laney, 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 in an effective, inclusive, and equitable manner. 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.

The teacher education programs at the University of North Texas have a long history of preparing effective teachers. As the needs of children and schools of Texas change, the programs continue to change. In 1992, the teacher education programs began to establish professional development schools, which are field-based educator preparation programs. In professional development school programs, public school teachers and administrators collaborate with faculty from the University of North Texas to prepare teachers for the challenges of the new century. Teacher education students in professional development schools learn and apply their knowledge and skills in clinical settings under the supervision of master teachers. The programs in teacher education are working toward the goal of assuring that all students recommended for certification have had firm grounding in content knowledge and pedagogy, as well as experience in professional development schools.

Programs in teacher education are approved by the Texas Education Agency (1701 N. Congress Avenue, Austin, TX 78701
[www.tea.state.tx.us]) and are accredited by the National Council for Accreditation of Teacher Education (NCATE) (2010 Massachusetts Avenue NW, Suite 500, Washingon, DC 20036-1023; 202-466-7496 [www.ncate.org]).

The department offers teacher certification programs for both undergraduate and graduate students. Undergraduates seeking teacher certification in early childhood through grade six (EC-6) or grades 4-8 should enroll in the Bachelor of Science program with a major in interdisciplinary studies. 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 in the Teacher Education and Administration Office in Matthews Hall, Room 204E, to develop a post-baccalaureate certification plan. Postbaccalaureate 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).

## Admission to teacher education

## Admission to elementary or middle school teacher education

For admission to elementary or middle school teacher education, a student must have:

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. minimum THEA scores of 240 reading, 230 math and 220 writing or exemptions based on SAT, ACT or TAKS/TAAS/STAAR scores;
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.
Students must be admitted to teacher education before enrolling in most education 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/pedagogy courses) in order to proceed with early field
experience and student teaching. Students seeking EC-6 or 4-8 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 www.coe.unt.edu/sao for additional information.

## Admission to secondary or all-level teacher education

For admission to secondary or all-level teacher education, a student must have:

1. Junior standing (60 credit hours earned);
a 2.75 UNT GPA;
a 2.75 overall GPA (includes all transferred and UNT courses);
minimum THEA scores of 240 reading, 230 math and 220 writing or exemptions based on SAT, ACT or TAKS/TAAS/STAAR scores;
2. 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) in order 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 www.coe.unt.edu/sao for additional information.

## Student advising

College of Education undergraduate students receive academic advising from the Student Advising Office (SAO). The SAO provides developmental advising in creating and following academic plans and helps students in their pursuit of academic success. Students should schedule regular appointments with an SAO advisor (Matthews Hall, Room 105) to create or edit a degree plan, to receive current information regarding specific degree or certification requirements, or to get academic guidance and help. The SAO sees students by appointment only, except during the regular registration period each semester, when they accept drop-in visitors. Appointment times fill quickly and students are encouraged to schedule advising appointments at least two weeks in advance. Additional degree and other SAO information are available online at www.coe.unt.edu/sao.

## 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 academic departments and the Department of Teacher Education and Administration office.

## Teacher certification

Teacher certification is a function of the Texas Education Agency. Completion of the bachelor's degree and the required education courses does not necessarily result in certification by the agency. All undergraduate students seeking recommendation for initial teacher certification through the University of North Texas must (1) successfully complete an approved teacher education program for the preparation of early childhood, middle grades, secondary or all-level teachers; (2) successfully complete student teaching, which includes attending appropriate seminars and passing a comprehensive teacher preparation examination; and (3) pass appropriate sections of the Texas Examinations of Educator Standards (TExES), as applicable. The TExES is offered at least once each long term/semester and once in the summer. Contact the TExES Advising Office in Matthews Hall, Room 103, for further information (940-369-8601).

Those seeking certification must also present acceptable scores on the Pedagogy and Professional Responsibilities (PPR) Exam. Students should contact the TExES Advising Office in Matthews Hall, Room 103, to determine which exams apply to them and to gain other pertinent information. Students working on a teacher certification plan must meet all requirements stated on their certification (deficiency) plan.

## 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 Student Financial Aid and Scholarships.

Departmental scholarships are listed on the teacher education and administration 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.

## Early Childhood Education

Early Childhood Education provides students a program of study and career opportunities in fields relating to the care and education of young children, birth to age eight.

The Child Development Laboratory is an accredited preschool program for children ages 3 through 5. In addition, it serves as a model, an observation site and a training center for undergraduate and graduate students in fields related to young children. Research related to early childhood issues is conducted by graduate students and faculty members from across the university.

## Elementary or middle school education

The elementary education and middle school education programs offer a BS with a major in interdisciplinary studies for teacher certification in grades EC-6 or 4-8 which meets and exceeds the requirements mandated by the State of Texas. All students receive preparation in content knowledge and pedagogy as well as field experience in a Professional Development School (PDS) setting.

## Secondary Education

Secondary Education, in cooperation with other schools and departments, offers a complete curriculum of teacher preparation. A Standard Teacher's Certificate for teaching grades 7-12 is available with the completion of a major in an approved teaching field and a minor in secondary education.

Undergraduate professional development courses in secondary education constitute a minor for bachelor's degree programs in the College of Arts and Sciences, the College of Business or the College of Public Affairs and Community Service. 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 Arts and Sciences section of this catalog.

## Majors

## Interdisciplinary Studies, BS (EC-6 or 4-8 Teacher Certification)

The Bachelor of Science with a major in interdisciplinary studies (with EC-6 or 4-8 teacher certification) develops highly qualified teachers through a rigorous curriculum with high standards. District administrators report that our graduates are as prepared in their first year of teaching as second- and third-year teachers.

Students completing the requirements for the undergraduate degree will receive the Bachelor of Science with a major in interdisciplinary studies. The undergraduate program requires a minimum of 120-126 semester hours. The specific number of hours required is determined by one's choice of grades EC-6 or grades 4-8 options as described below.

## Degree requirements

Students must be admitted to teacher education before enrolling in most education courses in the degree. 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/pedagogy courses) in order to proceed with early field experience and student teaching. Students seeking EC-6 or 4-8 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 www.coe.unt.edu/sao for additional information.

Students are encouraged to visit the College of Education web site for TExES information (www.coe.unt.edu/TExES). Students are also encouraged to see their advisors each term/semester for help with program decisions and course selection.

## Hours required and general/college requirements

A minimum of 120-126 semester hours (depending upon teacher certification and course options selected), 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 the College of Education 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 prepare for a core subjects certificate or a core subjects and a specialization certificate. Students should consult with their advisors to determine the best sequence for taking core courses, prerequisite courses, major courses and PDS courses. Part of this degree is two semesters of courses in a Professional Development School (PDS). Courses taken during the first semester of PDS require two days per week of course work and two days per week internship at a PDS site. The second semester of PDS is 15 weeks of student teaching internship plus attendance at a weekly seminar.

## Core Subjects EC-6 Certification (no specialization certificate)

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- HDFS 3423 - Family, School and Community
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 3380 - Teaching and Learning in Grades EC-6
- EDEE 4101 - Student Teaching in EC through Grade 6
- EDEE 4102 - Student Teaching in EC through Grade 6
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4840 - Linguistically Diverse Learners
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210 - Conceptual Physics

All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## Core Subjects EC-6 with ESL Supplemental Certification

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4101 - Student Teaching in EC through Grade 6
- EDEE 4102 - Student Teaching in EC through Grade 6 (in an ESL classroom)
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- LING 4030 - Acquisition of English as a Second Language
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210 - Conceptual Physics

All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## Core Subjects EC-6 with Bilingual Supplemental Certification

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4480 - Bilingual Approaches to Content-Based Learning
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4101 - Student Teaching in EC through Grade 6
- EDEE 4102 - Student Teaching in EC through Grade 6 (in a bilingual classroom)
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- $\quad$ SPAN 3080 - Advanced Spanish Composition and Oral Practice for Bilinguals
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210 - Conceptual Physics


## All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## Core Subjects EC-6 with Special Education EC-12 Certification

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 3380 - Teaching and Learning in Grades EC-6
- EDEE 4102 - Student Teaching in EC through Grade 6
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4840 - Linguistically Diverse Learners
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 3240 - Family Collaboration for Exceptional Learners
- EDSP 4110 - Student Teaching in Special Education
- 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 4360 - Transition Education and Services for Exceptional Learners
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210 - Conceptual Physics

All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## 4-8 content areas with English as a Second Language teacher certifications

## Grades 4-8 English Language Arts and Reading with English as a Second Language certification

- HDFS 4133 - Adolescent Development
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 2000 - Exploring Diversity Through Social Action
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4890 - Inquiry into Classroom Practice
- EDME 3380 - Teaching and Learning in the Middle Grades
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDRE 4820 - Reading and Writing in Grades 4-8
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
- or
- ENGL 2220 - Survey of World Literatures from 1700 to the Present
- ENGL 3110 - Academic Writing in the Humanities
- ENGL 3920 - Survey of Ethnic Literatures
- JOUR 1210 - Mass Communication and Society
- LING 3060 - Principles of Language Study


## Theatre

One of the following:

- THEA 3400 - Theatre for Young Audiences
- THEA 4240 - Theatre in the Classroom
- THEA 4460 - Play and Film Scriptwriting


## Communication

One of the following:

- COMM 1010 - Introduction to Communication
- COMM 2040 - Public Speaking


## Plus the following

- An approved American Literature course (advanced)
- An approved British Literature course (advanced)
- Any two approved mathematics courses (6 hours, in addition to the core)
- Any two approved science courses (6 hours, in addition to the core)


## Grades 4-8 Mathematics with English as a Second Language certification

- TNTX 1100 - Secondary Teacher Preparation I: Inquiry Approaches to Teaching
- and
- TNTX 1200 - Secondary Teacher Education Preparation II: Inquiry-Based Lesson Design
- or
- TNTX 1300 - Secondary Teacher Education Preparation I and II: Inquiry-Based Lessons
- TNTX 3100 - Conceptual Algebra and Geometry
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDME 4351 - Teaching Mathematics in Grades 4-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSE 3500 - Knowing and Learning in Mathematics, Science and Computer Science
- EDSE 3800 - Professional Issues in Teaching
- EDSE 4000 - Classroom Interactions
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4500 - Project-Based Instruction in Math, Science and Computer Science
- EDSP 3210 - Educational Aspects of Exceptional Learners
- LING 3060 - Principles of Language Study
- MATH 1650 - Pre-Calculus (or MATH elective numbered above MATH 1720 if MATH course work begins at MATH 1710 or higher)
- MATH 1680 - Elementary Probability and Statistics (or MATH 1681 if already completed)
- or
- MATH 3680 - Applied Statistics
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- MATH 1710 - Calculus I
- MATH 1720 - Calculus II


## Additional mathematics courses

Two additional courses selected from:

- MATH 1580 - Survey of Mathematics with Applications
- or
- MATH 1581 - Survey of Mathematics with Applications and Algebra Review (if already completed)
- MATH 2000 - Discrete Mathematics
- MATH 2100 - Functions and Modeling for Secondary Mathematics Instruction
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- Or any mathematics courses numbered above MATH 1720.


## Science, 6 hours

Any two approved science courses (6 hours, in addition to the core).

## Grades 4-8 Science with English as a Second Language certification

- BIOL 1132 - Environmental Science
- BIOL 1710 - Biology for Science Majors I and
- BIOL 1720 - Biology for Science Majors II and
- CHEM 1410 - General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420 - General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDME 4330 - Science in Grades 4-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSE 3500 - Knowing and Learning in Mathematics, Science and Computer Science
- EDSE 3800 - Professional Issues in Teaching
- EDSE 4000 - Classroom Interactions
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4500 - Project-Based Instruction in Math, Science and Computer Science
- EDSP 3210 - Educational Aspects of Exceptional Learners
- GEOG 1710 - Earth Science
- LING 3060 - Principles of Language Study
- MATH 1100 - Algebra
- or
- MATH 1180 - College Math for Business, Economics and Related Fields
- PHYS 1052 - The Solar System
- or
- 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
- Any two approved mathematics courses (6 hours, in addition to the core)
- TNTX 1100 - Secondary Teacher Preparation I: Inquiry Approaches to Teaching and
- TNTX 1200 - Secondary Teacher Education Preparation II: Inquiry-Based Lesson Design
- or
- TNTX 1300 - Secondary Teacher Education Preparation I and II: Inquiry-Based Lessons

Grades 4-8 Social Studies with English as a Second Language certification

- HDFS 4133 - Adolescent Development
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 2000 - Exploring Diversity Through Social Action
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4890 - Inquiry into Classroom Practice
- EDME 3380 - Teaching and Learning in the Middle Grades
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDME 4340 - Social Studies in Grades 4-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- GEOG 1200 - Global Societies
- GEOG 1710 - Earth Science
- GEOL 1610 - Introductory Physical Geology
- HIST 4700-Texas
- LING 3060 - Principles of Language Study

Plus the following

- Any two approved U.S. history courses (6 hours, advanced)
- Any approved European history course (3 hours, advanced)
- Any approved world history course (3 hours, advanced)
- Any approved American government and politics course (3 hours, advanced)
- Any approved comparative government and politics course (3 hours, advanced)
- Any two approved mathematics courses (6 hours, in addition to the core)
- Any two approved science courses (6 hours, in addition to the core)


## Minor requirements

There is no minor for this degree.

## Electives

There are no electives for this degree.

## Other requirements

Admission to teacher education and eligibility for teacher certification.
See "Student Teaching" in the College of Education general information section of this catalog.

Interdisciplinary Studies, BS (EC-6 or 4-8 Teacher Certification)

The Bachelor of Science with a major in interdisciplinary studies (with EC-6 or 4-8 teacher certification) develops highly qualified teachers through a rigorous curriculum with high standards. District administrators report that our graduates are as prepared in their first year of teaching as second- and third-year teachers.

Students completing the requirements for the undergraduate degree will receive the Bachelor of Science with a major in interdisciplinary studies. The undergraduate program requires a minimum of 120-126 semester hours. The specific number of hours required is determined by one's choice of grades EC-6 or grades 4-8 options as described below.

## Degree requirements

Students must be admitted to teacher education before enrolling in most education courses in the degree. 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/pedagogy courses) in order to proceed with early field experience and student teaching. Students seeking EC-6 or 4-8 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 www.coe.unt.edu/sao for additional information.

Students are encouraged to visit the College of Education web site for TExES information (www.coe.unt.edu/TExES). Students are also encouraged to see their advisors each term/semester for help with program decisions and course selection.

## Hours required and general/college requirements

A minimum of 120-126 semester hours (depending upon teacher certification and course options selected), 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 the College of Education 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 prepare for a core subjects certificate or a core subjects and a specialization certificate. Students should consult with their advisors to determine the best sequence for taking core courses, prerequisite courses, major courses and PDS courses. Part of this degree is two semesters of courses in a Professional Development School (PDS). Courses taken during the first semester of PDS require two days per week of course work and two days per week internship at a PDS site. The second semester of PDS is 15 weeks of student teaching internship plus attendance at a weekly seminar.

## Core Subjects EC-6 Certification (no specialization certificate)

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- HDFS 3423 - Family, School and Community
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 3380-Teaching and Learning in Grades EC-6
- EDEE 4101 - Student Teaching in EC through Grade 6
- EDEE 4102 - Student Teaching in EC through Grade 6
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4840 - Linguistically Diverse Learners
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870-Cross-Curricular (Content Area) Literacy Materials and Resources
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210 - Conceptual Physics

All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## Core Subjects EC-6 with ESL Supplemental Certification

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470-Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490-Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4101 - Student Teaching in EC through Grade 6
- EDEE 4102 - Student Teaching in EC through Grade 6 (in an ESL classroom)
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4850-Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870-Cross-Curricular (Content Area) Literacy Materials and Resources
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- LING 4030-Acquisition of English as a Second Language
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210-Conceptual Physics

All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## Core Subjects EC-6 with Bilingual Supplemental Certification

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4480 - Bilingual Approaches to Content-Based Learning
- EDBE 4490-Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4101 - Student Teaching in EC through Grade 6
- EDEE 4102 - Student Teaching in EC through Grade 6 (in a bilingual classroom)
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- SPAN 3080 - Advanced Spanish Composition and Oral Practice for Bilinguals
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210 - Conceptual Physics

All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## Core Subjects EC-6 with Special Education EC-12 Certification

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- EDBE 4490-Teaching ESL EC-12: Instructional Strategies and Resources
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 3380-Teaching and Learning in Grades EC-6
- EDEE 4102 - Student Teaching in EC through Grade 6
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340-Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4840 - Linguistically Diverse Learners
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 3240 - Family Collaboration for Exceptional Learners
- EDSP 4110 - Student Teaching in Special Education
- 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 4360 - Transition Education and Services for Exceptional Learners
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210-Conceptual Physics


## All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## 4-8 content areas with English as a Second Language teacher certifications

## Grades 4-8 English Language Arts and Reading with English as a Second Language certification

- HDFS 4133-Adolescent Development
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470-Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 2000 - Exploring Diversity Through Social Action
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4890 - Inquiry into Classroom Practice
- EDME 3380-Teaching and Learning in the Middle Grades
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDRE 4820 - Reading and Writing in Grades 4-8
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870-Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- ENGL 2210 - Survey of World Literatures from Antiquity to 1700 or
- ENGL 2220 - Survey of World Literatures from 1700 to the Present
- ENGL 3110 - Academic Writing in the Humanities
- ENGL 3920 - Survey of Ethnic Literatures
- JOUR 1210 - Mass Communication and Society
- LING 3060 - Principles of Language Study


## Theatre

One of the following:

- THEA 3400-Theatre for Young Audiences
- THEA 4240 - Theatre in the Classroom
- THEA 4460 - Play and Film Scriptwriting


## Communication

One of the following:

- COMM 1010-Introduction to Communication
- COMM 2040 - Public Speaking

Plus the following

- An approved American Literature course (advanced)
- An approved British Literature course (advanced)
- Any two approved mathematics courses (6 hours, in addition to the core)
- Any two approved science courses (6 hours, in addition to the core)


## Grades 4-8 Mathematics with English as a Second Language certification

- TNTX 1100 - Secondary Teacher Preparation I: Inquiry Approaches to Teaching and
- TNTX 1200 - Secondary Teacher Education Preparation II: Inquiry-Based Lesson Design or
- TNTX 1300 - Secondary Teacher Education Preparation I and II: Inquiry-Based Lessons
- TNTX 3100 - Conceptual Algebra and Geometry
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470-Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490-Teaching ESL EC-12: Instructional Strategies and Resources
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDME 4351 - Teaching Mathematics in Grades 4-8
- EDRE 4870-Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSE 3500 - Knowing and Learning in Mathematics, Science and Computer Science
- EDSE 3800 - Professional Issues in Teaching
- EDSE 4000-Classroom Interactions
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4500 - Project-Based Instruction in Math, Science and Computer Science
- EDSP 3210 - Educational Aspects of Exceptional Learners
- LING 3060 - Principles of Language Study
- MATH 1650 - Pre-Calculus (or MATH elective numbered above MATH 1720 if MATH course work begins at MATH 1710 or higher)
- MATH 1680 - Elementary Probability and Statistics (or MATH 1681 if already completed) or
- MATH 3680 - Applied Statistics
- MATH 1350-Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- MATH 1710-Calculus I
- MATH 1720-Calculus II


## Additional mathematics courses

Two additional courses selected from:

- MATH 1580 - Survey of Mathematics with Applications or
- MATH 1581 - Survey of Mathematics with Applications and Algebra Review (if already completed)
- MATH 2000 - Discrete Mathematics
- MATH 2100 - Functions and Modeling for Secondary Mathematics Instruction
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- Or any mathematics courses numbered above MATH 1720.

Science, 6 hours

Any two approved science courses (6 hours, in addition to the core).

## Grades 4-8 Science with English as a Second Language certification

- BIOL 1132 - Environmental Science
- BIOL 1710 - Biology for Science Majors I and
- BIOL 1720 - Biology for Science Majors II and
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480-Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470-Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDME 4330-Science in Grades 4-8
- EDRE 4870-Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSE 3500 - Knowing and Learning in Mathematics, Science and Computer Science
- EDSE 3800 - Professional Issues in Teaching
- EDSE 4000 - Classroom Interactions
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4500 - Project-Based Instruction in Math, Science and Computer Science
- EDSP 3210 - Educational Aspects of Exceptional Learners
- GEOG 1710 - Earth Science
- LING 3060 - Principles of Language Study
- MATH 1100 - Algebra
or
- MATH 1180-College Math for Business, Economics and Related Fields
- PHYS 1052 - The Solar System
or
- 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
- Any two approved mathematics courses (6 hours, in addition to the core)
- TNTX 1100 - Secondary Teacher Preparation I: Inquiry Approaches to Teaching and
- TNTX 1200 - Secondary Teacher Education Preparation II: Inquiry-Based Lesson Design or
- TNTX 1300 - Secondary Teacher Education Preparation I and II: Inquiry-Based Lessons


## Grades 4-8 Social Studies with English as a Second Language certification

- HDFS 4133 - Adolescent Development
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470-Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490-Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 2000 - Exploring Diversity Through Social Action
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4890 - Inquiry into Classroom Practice
- EDME 3380-Teaching and Learning in the Middle Grades
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDME 4340-Social Studies in Grades 4-8
- EDRE 4870-Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- GEOG 1200-Global Societies
- GEOG 1710 - Earth Science
- GEOL 1610 - Introductory Physical Geology
- HIST 4700 - Texas
- LING 3060 - Principles of Language Study

Plus the following

- Any two approved U.S. history courses (6 hours, advanced)
- Any approved European history course (3 hours, advanced)
- Any approved world history course (3 hours, advanced)
- Any approved American government and politics course (3 hours, advanced)
- Any approved comparative government and politics course (3 hours, advanced)
- Any two approved mathematics courses (6 hours, in addition to the core)
- Any two approved science courses (6 hours, in addition to the core)


## Minor requirements

There is no minor for this degree.

## Electives

There are no electives for this degree.

## Other requirements

Admission to teacher education and eligibility for teacher certification.
See "Student Teaching" in the College of Education general information section of this catalog.

Middle School Education (Interdisciplinary Studies, BS)

## Interdisciplinary Studies, BS (EC-6 or 4-8 Teacher Certification)

The Bachelor of Science with a major in interdisciplinary studies (with EC-6 or 4-8 teacher certification) develops highly qualified teachers through a rigorous curriculum with high standards. District administrators report that our graduates are as prepared in their first year of teaching as second- and third-year teachers.

Students completing the requirements for the undergraduate degree will receive the Bachelor of Science with a major in interdisciplinary studies. The undergraduate program requires a minimum of $120-126$ semester hours. The specific number of hours required is determined by one's choice of grades EC-6 or grades 4-8 options as described below.

## Degree requirements

Students must be admitted to teacher education before enrolling in most education courses in the degree. 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/pedagogy courses) in order to proceed with early field experience and student teaching. Students seeking EC-6 or 4-8 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 www.coe.unt.edu/sao for additional information.

Students are encouraged to visit the College of Education web site for TExES information (www.coe.unt.edu/TExES). Students are also encouraged to see their advisors each term/semester for help with program decisions and course selection.

## Hours required and general/college requirements

A minimum of 120-126 semester hours (depending upon teacher certification and course options selected), 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 the College of Education 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 prepare for a core subjects certificate or a core subjects and a specialization certificate. Students should consult with their advisors to determine the best sequence for taking core courses, prerequisite courses, major courses and PDS courses. Part of this degree is two semesters of courses in a Professional Development School (PDS). Courses taken during the first semester of PDS require two days per week of course work and two days per week internship at a PDS site. The second semester of PDS is 15 weeks of student teaching internship plus attendance at a weekly seminar.

## Core Subjects EC-6 Certification (no specialization certificate)

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- HDFS 3423 - Family, School and Community
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 3380 - Teaching and Learning in Grades EC-6
- EDEE 4101 - Student Teaching in EC through Grade 6
- EDEE 4102 - Student Teaching in EC through Grade 6
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4840 - Linguistically Diverse Learners
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210 - Conceptual Physics


## All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## Core Subjects EC-6 with ESL Supplemental Certification

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480-Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4101 - Student Teaching in EC through Grade 6
- EDEE 4102 - Student Teaching in EC through Grade 6 (in an ESL classroom)
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- LING 4030 - Acquisition of English as a Second Language
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210 - Conceptual Physics

All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## Core Subjects EC-6 with Bilingual Supplemental Certification

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEC 4633 - Nurturing Children's Social Competence
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4480 - Bilingual Approaches to Content-Based Learning
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4101 - Student Teaching in EC through Grade 6
- EDEE 4102 - Student Teaching in EC through Grade 6 (in a bilingual classroom)
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- SPAN 3080 - Advanced Spanish Composition and Oral Practice for Bilinguals
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210 - Conceptual Physics

All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## Core Subjects EC-6 with Special Education EC-12 Certification

- BIOL 1082 - Biology for Educators
- BIOL 1132 - Environmental Science
- HDFS 1013 - Human Development
- HDFS 2033 - Parenting in Diverse Families
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEC 3613 - Introduction to Early Childhood
- EDEC 4243 - Environmental Processes and Assessment
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 3380 - Teaching and Learning in Grades EC-6
- EDEE 4102 - Student Teaching in EC through Grade 6
- EDEE 4330 - Sciences in Grades EC-6
- EDEE 4340 - Social Studies in Grades EC-6
- EDEE 4350 - Mathematics in Grades EC-8
- EDRE 4450 - Reading and Writing, Birth through Grade 6
- EDRE 4840 - Linguistically Diverse Learners
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDEE 4890 - Inquiry into Classroom Practice
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 3240 - Family Collaboration for Exceptional Learners
- EDSP 4110 - Student Teaching in Special Education
- 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 4360 - Transition Education and Services for Exceptional Learners
- GEOG 1710 - Earth Science
- HLTH 1100 - School and Community Health Problems and Services
- KINE 3550 - Pedagogical Skills, Strategies and Management in Physical Education and Movement for Children
- LING 3060 - Principles of Language Study
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- PHYS 1210 - Conceptual Physics


## All three of the following

- AEAH 1750 - Visual Arts Integration
- MUED 1130 - Foundations in Music
- THEA 1130 - Introduction to Creative Drama in the Elementary School


## 4-8 content areas with English as a Second Language teacher certifications

Grades 4-8 English Language Arts and Reading with English as a Second Language certification

- HDFS 4133 - Adolescent Development
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 2000 - Exploring Diversity Through Social Action
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4890 - Inquiry into Classroom Practice
- EDME 3380 - Teaching and Learning in the Middle Grades
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDRE 4820 - Reading and Writing in Grades 4-8
- EDRE 4850 - Assessment and Evaluation of Reading
- EDRE 4860 - Reading and the Language Arts in Grades EC-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- ENGL 2210 - Survey of World Literatures from Antiquity to 1700
- or
- ENGL 2220 - Survey of World Literatures from 1700 to the Present
- ENGL 3110 - Academic Writing in the Humanities
- ENGL 3920 - Survey of Ethnic Literatures
- JOUR 1210 - Mass Communication and Society
- LING 3060 - Principles of Language Study


## Theatre

One of the following:

- THEA 3400 - Theatre for Young Audiences
- THEA 4240 - Theatre in the Classroom
- THEA 4460 - Play and Film Scriptwriting


## Communication

One of the following:

- COMM 1010 - Introduction to Communication
- COMM 2040 - Public Speaking


## Plus the following

- An approved American Literature course (advanced)
- An approved British Literature course (advanced)
- Any two approved mathematics courses (6 hours, in addition to the core)
- Any two approved science courses (6 hours, in addition to the core)

Grades 4-8 Mathematics with English as a Second Language certification

- TNTX 1100 - Secondary Teacher Preparation I: Inquiry Approaches to Teaching
- and
- TNTX 1200 - Secondary Teacher Education Preparation II: Inquiry-Based Lesson Design
- or
- TNTX 1300 - Secondary Teacher Education Preparation I and II: Inquiry-Based Lessons
- TNTX 3100 - Conceptual Algebra and Geometry
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480-Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDME 4351 - Teaching Mathematics in Grades 4-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSE 3500 - Knowing and Learning in Mathematics, Science and Computer Science
- EDSE 3800 - Professional Issues in Teaching
- EDSE 4000 - Classroom Interactions
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4500 - Project-Based Instruction in Math, Science and Computer Science
- EDSP 3210 - Educational Aspects of Exceptional Learners
- LING 3060 - Principles of Language Study
- MATH 1650 - Pre-Calculus (or MATH elective numbered above MATH 1720 if MATH course work begins at MATH 1710 or higher)
- MATH 1680 - Elementary Probability and Statistics (or MATH 1681 if already completed)
- or
- MATH 3680 - Applied Statistics
- MATH 1350 - Mathematics for Elementary Education Majors I
- MATH 1351 - Mathematics for Elementary Education Majors II
- MATH 1710 - Calculus I
- MATH 1720 - Calculus II


## Additional mathematics courses

Two additional courses selected from:

- MATH 1580 - Survey of Mathematics with Applications
- or
- MATH 1581 - Survey of Mathematics with Applications and Algebra Review (if already completed)
- MATH 2000 - Discrete Mathematics
- MATH 2100 - Functions and Modeling for Secondary Mathematics Instruction
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- Or any mathematics courses numbered above MATH 1720.


## Science, 6 hours

## Grades 4-8 Science with English as a Second Language certification

- BIOL 1132 - Environmental Science
- BIOL 1710 - Biology for Science Majors I and
- BIOL 1720 - Biology for Science Majors II and
- CHEM 1410 - General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- CHEM 1420 - General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDME 4330 - Science in Grades 4-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSE 3500 - Knowing and Learning in Mathematics, Science and Computer Science
- EDSE 3800 - Professional Issues in Teaching
- EDSE 4000 - Classroom Interactions
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4500 - Project-Based Instruction in Math, Science and Computer Science
- EDSP 3210 - Educational Aspects of Exceptional Learners
- GEOG 1710 - Earth Science
- LING 3060 - Principles of Language Study
- MATH 1100 - Algebra
- or
- MATH 1180 - College Math for Business, Economics and Related Fields
- PHYS 1052 - The Solar System
- or
- 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
- Any two approved mathematics courses (6 hours, in addition to the core)
- TNTX 1100 - Secondary Teacher Preparation I: Inquiry Approaches to Teaching and
- TNTX 1200 - Secondary Teacher Education Preparation II: Inquiry-Based Lesson Design
- or
- TNTX 1300 - Secondary Teacher Education Preparation I and II: Inquiry-Based Lessons
- HDFS 4133 - Adolescent Development
- EDBE 3470 - Foundations of Bilingual and English as a Second Language Education
- EDBE 3480 - Bilingualism/Multiculturalism for English Language Learning: Issues and Perspectives
- EDBE 4470 - Curriculum and Assessment for Bilingual/ESL Education
- EDBE 4490 - Teaching ESL EC-12: Instructional Strategies and Resources
- EDEE 2000 - Exploring Diversity Through Social Action
- EDEE 3320 - Foundations of Education: The School Curriculum
- EDEE 4890 - Inquiry into Classroom Practice
- EDME 3380 - Teaching and Learning in the Middle Grades
- EDME 4103 - Student Teaching in Grades 4-8
- EDME 4104 - Student Teaching in Grades 4-8
- EDME 4340 - Social Studies in Grades 4-8
- EDRE 4870 - Cross-Curricular (Content Area) Literacy Materials and Resources
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSP 3210 - Educational Aspects of Exceptional Learners
- EDSP 4350 - Strategies to Support Diverse Learners in General Education
- GEOG 1200 - Global Societies
- GEOG 1710 - Earth Science
- GEOL 1610 - Introductory Physical Geology
- HIST 4700 - Texas
- LING 3060 - Principles of Language Study


## Plus the following

- Any two approved U.S. history courses (6 hours, advanced)
- Any approved European history course (3 hours, advanced)
- Any approved world history course (3 hours, advanced)
- Any approved American government and politics course (3 hours, advanced)
- Any approved comparative government and politics course (3 hours, advanced)
- Any two approved mathematics courses (6 hours, in addition to the core)
- Any two approved science courses (6 hours, in addition to the core)


## Minor requirements

There is no minor for this degree.

## Electives

There are no electives for this degree.

## Other requirements

Admission to teacher education and eligibility for teacher certification.
See "Student Teaching" in the College of Education general information section of this catalog.

## Minors

## Secondary Education for BA, BS (secondary teacher certification) minor

UNT is authorized to recommend secondary and all-level teacher certification for students who are completing a bachelor's degree 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 Content Areas: art, French, German, music, physical education, Spanish and theatre.

Although teacher certification programs share many commonalities, each certificate has unique requirements. What applies to one certificate or grade level 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 Texas Education Agency. 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 may apply to certain content areas. Therefore, it is impractical to list requirements for individual content areas in this catalog.

## 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 Academics section of this catalog and the College of Education requirements. Students seeking teacher certification in secondary or all-level education must also meet all requirements of the college responsible for awarding the degree program for their selected major.

## Major requirements

See individual degree audit.

## Other course requirements

See individual degree audit.

## Minor requirements

## Pedagogy, 12 hours

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830 - Teaching/Learning Process and Evaluation
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4840 - Instructional Strategies and Classroom Management


## Reading/English/language arts, 3 hours

- EDSE 4060 - Content Area Reading in Secondary Schools


## Internship (student teaching), 6 hours

See "Student Teaching" in the College of Education general information section of this catalog.

- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 4118 - Student Teaching in the Secondary School


## Electives

See individual degree audit.

## Other requirements

a. Admission to Teacher Education. Prior to enrolling in the first education course, 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 all courses transferred to UNT, plus all courses taken at UNT);
- Passed the THEA test (with 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. For specific admission requirements for each area, see "Admission to Teacher Education" in the following areas in this catalog: Elementary Education and Secondary Education and Department of Kinesiology, Health Promotion and Recreation.
b. 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 early childhood, middle grades, secondary or all-level teachers;
- Successfully completed student teaching, including attendance at appropriate seminars;
- Passed the Secondary Pedagogy and Professional Responsibilities (PPR) and content area 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 Advising Office in Matthews Hall, Room 103, for further information (940-369-8601).

# College of Engineering 

Dean's Office<br>Discovery Park, Room A140<br>Mailing address:<br>1155 Union Circle \#310440<br>Denton, TX 76203-5017<br>940-565-4300<br>Undergraduate Academic Advising<br>Discovery Park, Room A101<br>940-565-4201<br>Web site: engineering.unt.edu<br>\section*{Costas Tsatsoulis, Dean}<br>Nandika Anne D'Souza, Associate Dean<br>Kuruvilla John, Associate Dean

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 six 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 Engineering Technology, the Department of Materials Science and Engineering, and the Department of Mechanical and Energy 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, electrical engineering, electrical engineering technology, information technology, materials science and engineering, mechanical and energy engineering, and mechanical engineering technology.

Most of the programs in the College of Engineering are accredited by ABET (111 Market Place, Suite 1050, Baltimore, MD 21202; 410-3477700).

Each program provides some flexibility through elective course opportunities to permit program individualism while meeting basic requirements.

## Mission

The mission of the UNT College of Engineering is to capitalize on the opportunity for innovation and excellence in teaching, research and service. This will be achieved by a strategic alliance among all of the college's constituencies in the region, the state of Texas and the nation. The constituencies involved include foremost our undergraduate and graduate students as well as academic units and industry, particularly in North Texas, so as to foster economic development and promote an academically diverse environment.

## Vision

The vision of the College of Engineering is to have the highest quality and most innovative teaching and research programs in North Texas and beyond:

- in strategically selected areas of engineering and computer science that service the community, industry, and the profession;
- in an intellectually stimulating and diverse environment; and
- in support of industry and economic development.


## College of Engineering admissions requirements

Admission to the College of Engineering is contingent on clear admission to the university.
Freshman applicants will be admitted to the College of Engineering in an Engineering program if:

1. they were in the top $25 \%$ of their graduating class and have a math SAT score of 570 or better and a total SAT score of 1070 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 600 or better and a total SAT score of 1100 or better; or a math ACT score of 24 or better and a cumulative ACT score of 24 or better.
3. they have a math SAT score of 630 or better and a total SAT score of 1180 or better; or a math ACT score of 26 or better and a cumulative ACT score of 26 or better.

- Freshman applicants to Engineering Technology programs must have a math SAT score of 540 or better, or a math ACT score of 22 or better.
- 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 (www.math.unt.edu/academics/mathematics-placement).
- 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.
- For applicants who do not meet the above requirements, admission will be granted on entry into MATH 1710 (Calculus) and good academic standing with a cumulative UNT grade point average of 2.0 or higher.
After admission criteria are met by the applicant, the student will be accepted as a major in his or her program of study. The student must adhere to the requirements below in order to be accepted as a full major and to be allowed to enroll in upper-division courses in the College of Engineering.


## 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 by making an appointment with the faculty advisor in the major department.

1. All students must request an official degree audit through the departmental faculty advisor upon successful completion of the Departmental Foundation requirements.
2. Students who have not filed a degree audit will be blocked from enrolling in upper-division major courses. Students should take a complete evaluated transcript of all college work to their faculty advisors for conferences to fill out degree audit request forms. After the degree audit request forms have been signed, the department should send all materials to the College of Engineering Undergraduate Academic Advising Office, where official degree audits will be prepared. 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's core, 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. Each semester, students are required to take engineering foundation courses 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.
3. A minimum grade of C is required in all courses required in a student's major.
4. A student making grades lower than C two times in the same course in any College of Engineering foundation course or 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.
5. 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.
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, electrical engineering, materials science and engineering, and mechanical and energy engineering;
- Bachelor of Science in Engineering Technology with majors in construction engineering technology, electrical engineering technology, and mechanical engineering technology; and
- Bachelor of Arts, with a major in information technology.

A concentration in manufacturing engineering technology is available under the major in mechanical engineering technology.

## 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 Academics 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; 42-45 must be advanced, depending on the major.
2. General university requirements: See "University Core Curriculum" in the Academics 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 $\mathrm{A}, \mathrm{B}$ 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 $\mathrm{A}, \mathrm{B}$ 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 Academics 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 Academics 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.

## Requirements

## College of Engineering Degree Requirements

## 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 Academics 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; 42-45 must be advanced, depending on the major.
2. General university requirements: See "University Core Curriculum" in the Academics 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 $\mathrm{A}, \mathrm{B}$ 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 Academics 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 Academics 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 $\mathrm{A}, \mathrm{B}$ 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.

## Department of Biomedical Engineering

Main Departmental Office<br>Discovery Park, Suite B131<br>Mailing address:<br>1155 Union Circle \#310440<br>Denton, TX 76203-5017<br>940-565-3338<br>Fax: 940-369-8570<br>Web site: biomedical.engineering.unt.edu<br>\section*{Vijay Vaidyanathan, Chair}<br>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, 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 state and regional industries, hospitals, government agencies, or national and international industries.
2. Work professionally in one or more of the following areas: biomedical instrumentation, biomechanics, and bioinformatics
3. Achieve personal and professional success with a 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, business or medicine.

## 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 Academics section of this catalog and the College of Engineering.

## Major requirements

A minimum of 52 semester hours, including:

## Required courses, 28 hours

- BMEN 1300 - Discover Biomedical Engineering
- 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 4212 - Senior Design I
- BMEN 4222-Senior Design II
- BMEN 4310 - Biomedical Modeling


## Biomedical engineering electives, 6 hours

Two BMEN courses.

## Additional engineering electives, 18 hours (minimum)

Other required courses, 44 hours

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1415-General Chemistry for Engineering Majors and
- CHEM 1435-General Chemistry Laboratory for Engineering Majors
- CSCE 1030 - Computer Science I
- EENG 2610 - Circuit Analysis
- EENG 2710 - Digital Logic Design
- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I
- MATH 3680 - Applied Statistics
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- TECM 2700-Technical Writing

Minor

Students completing the requirements for this degree automatically earn a minor in mathematics. Through careful selection of engineering 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 computer science and computer engineering, material science and engineering, electrical engineering, or mechanical and energy engineering.

## Electives, 18 hours

18 hours to fulfill one of five tracks:

- Biomedical instrumentation: 18 hours in BMEN or EENG courses
- Biomechanics: 18 hours in BMEN or MEEN courses
- Bioinformatics: 18 hours in BMEN or CSCE courses
- Biotechnology: 18 hours in BIOC/BIOL
- Biomaterials: 18 hours in materials science and engineering


## Other requirements

- BMEN foundation courses include BMEN 1300, BMEN 2210, BMEN 2320, MATH 1710 and TECM 2700. Satisfactory completion of the BMEN foundation courses with a minimum GPA of 2.5 is prerequisite to taking advanced courses in the major. Mandatory advisement is required each semester until the foundation courses have been successfully completed.
- A major grade point average of 2.0 is required for the BS with a major in biomedical engineering.


## 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. Student 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 3.3 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 letter 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

BMEN courses that apply to the grad track, with corresponding undergraduate courses in parenthesis:

- BMEN 5310 - Clinical Instrumentation (BMEN 4311)
- BMEN 5315 - Computational Methods in Biomedical Engineering (BMEN 4310)
- BMEN 5323 - Advanced Biomedical Optics (BMEN 4321)

All remaining courses required for the Biomedical Engineering, BS must also be completed.

# Department of Computer Science and Engineering 

Main Departmental Office<br>Discovery Park, Room F201<br>Mailing address:<br>1155 Union Circle \#311366<br>Denton, TX 76203-5017<br>940-565-2767<br>Fax: 940-565-2799<br>Web site: Www.cse.unt.edu

## Barrett Bryant, 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, 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 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

## 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.

The Bachelor of Science degree with a major in computer engineering is accredited by the Engineering Accreditation Commission (EAC) of ABET (abet.org), (111 Market Place, Suite 1050, Baltimore, MD 21202; 410-347-7700).

## Educational objectives

Graduates will:

1. Have completed projects involving design, evaluation of materials, and management of computational and personnel resources to solve problems in multi-disciplinary teams and exhibit the ability to communicate effectively.
2. Pursue graduate studies in computer engineering or related disciplines and careers involving VLSI design, real-time systems, communications, and networks or computer systems.
3. Act responsibly and ethically in their professional conduct and successfully engage in life-long learning.
4. Complete professional work assignments that exhibit a good balance between software and hardware systems, including software development, design of digital systems, microprocessors, embedded systems, real-time systems and digital communication systems.

## 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's degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Engineering requirements.

## Major requirements

A minimum of 60 semester hours, including:

- CSCE 1030 - Computer Science I
- CSCE 1040-Computer Science II
- CSCE 2100 - Computing Foundations I
- CSCE 2110 - Computing Foundations II
- CSCE 2610 - Assembly Language and Computer Organization
- CSCE 3010 - Signals and Systems
- CSCE 3020 - Communications Systems
- CSCE 3600 - Principles of Systems Programming
- CSCE 3612 - Embedded Systems Design
- CSCE 3730 - Reconfigurable Logic
- CSCE 4011 - Engineering Ethics
- CSCE 4910 - Computer Engineering Design I
- CSCE 4915 - Computer Engineering Design II


## Other required courses

- EENG 3510 - Electronics I (Devices and Materials)
- ENGR 2405 - Circuit Analysis and
- ENGR 2415 - Circuit Analysis Lab
- ENGR 2720 - Digital Logic and
- ENGR 2730 - Digital Logic Lab
- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 1780 - Probability Models
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- TECM 2700-Technical Writing
- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1415-General Chemistry for Engineering Majors and
- CHEM 1435-General Chemistry Laboratory for Engineering Majors
- Mathematics or science elective (3 hours, advanced, with advisor approval)


## Specialization area, 9 hours

Three courses selected from one of the four computer engineering specialization areas listed below.

## Real-Time and Embedded Systems

- CSCE 4440 - Real-Time Software Development
- CSCE 4444 - Software Engineering
- CSCE 4600 - Introduction to Operating Systems
- CSCE 4610 - Computer Architecture
- CSCE 4620 - Real-Time Operating Systems
- CSCE 4730 - VLSI Design
- CSCE 4890 - Directed Study
- ELET 3750 - Embedded C-Programming


## VLSI and Electronics

- CSCE 4610 - Computer Architecture
- CSCE 4730 - VLSI Design
- CSCE 4890 - Directed Study
- ELET 3750 - Embedded C-Programming
- ELET 4300 - Embedded System Organization
- ELET 4340 - Digital Logic Design Techniques
- PHYS 4500 - Introduction to Solid-State Physics


## Communication and Networks

- CSCE 3420 - Internet Programming
- CSCE 3530-Introduction to Computer Networks
- CSCE 4510 - Introduction to Wireless Communications
- CSCE 4520 - Wireless Networks and Protocols
- CSCE 4530 - Computer Network Design
- CSCE 4550 - Introduction to Computer Security
- CSCE 4560 - Secure Electronic Commerce
- CSCE 4890 - Directed Study


## Computer Systems

- CSCE 3030 - 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


## Note

A maximum of 6 hours of credit in CSCE 4890, CSCE 4920, CSCE 4940, or CSCE 4950 will count toward this degree.

## Minor

Optional.

## Electives

See CSE faculty advisor.

## Other requirements

- A grade point average of at least 2.0 is required for all advanced computer science and engineering courses.
- The Computer Engineering foundation courses are CSCE 1030, CSCE 1040, CSCE 2100, MATH 1710, CHEM 1410/CHEM 1430 or CHEM 1415/CHEM 1435, PHYS 1710/PHYS 1730, and TECM 2700. Satisfactory completion of the foundation courses with a minimum GPA of 2.5 is prerequisite to taking advanced courses in the major. Each semester the student must receive advisement until the foundation courses have been successfully completed.


## 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.

The Bachelor of Science degree with a major in computer science is accredited by the Computing Accreditation Commission (CAC) of ABET (abet.org), (111 Market Place, Suite 1050, Baltimore, MD 21202, 410-347-7700).

## Educational objectives

Graduates will:

1. Pursue graduate studies in computer science or related disciplines, and/or a career in a technology field utilizing skills from the computer science areas studied during the undergraduate program.
2. Act responsibly and ethically in their professional conduct and successfully engage in life-long learning.
3. Work effectively in multi-disciplinary teams and exhibit the ability to communicate effectively.
4. Complete professional work assignments that exhibit the ability to design, develop and implement software while applying computer science principles and practices to the solution of real problems.

## 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's degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Engineering requirements.

## Major requirements

A minimum of 55 semester hours, including:

- CSCE 1030-Computer Science I
- CSCE 1040-Computer Science II
- CSCE 2100 - Computing Foundations I
- CSCE 2110 - Computing Foundations II
- CSCE 2610 - Assembly Language and Computer Organization
- CSCE 3110 - Data Structures and Algorithms
- CSCE 3600 - Principles of Systems Programming
- CSCE 4010 - Social Issues in Computing
- CSCE 4110 - Algorithms
- CSCE 4444 - Software Engineering
- CSCE 4901 - Software Development Capstone
or
- CSCE 4999- Senior Thesis
- 9 hours chosen from CSCE Advanced Elective Courses


## 6 hours chosen from CSCE core courses:

- CSCE 4115 - Formal Languages, Automata and Computability
- CSCE 4430 - Programming Languages
- CSCE 4600 - Introduction to Operating Systems
- CSCE 4610 - Computer Architecture
- CSCE 4650 - Introduction to Compilation Techniques


## 6 hours chosen from CSCE breadth courses:

- CSCE 3530 - Introduction to Computer Networks
- CSCE 4210 - Game Programming I
- CSCE 4230 - Introduction to Computer Graphics
- CSCE 4310 - Introduction to Artificial Intelligence
- CSCE 4350 - Introduction to Database Systems Design

Note

A maximum of 6 hours of credit in CSCE 4890 , CSCE 4920 , CSCE 4940 or CSCE 4950 will count toward this degree.

## Other required courses

- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 1780 - Probability Models
- MATH 2700 - Linear Algebra and Vector Geometry
- EENG 2710 - Digital Logic Design
- TECM 2700 - Technical Writing


## Laboratory science, 16 hours

## Required courses, 8 hours

- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics


## Choose 8 hours from the following courses

- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry
or
- CHEM 1415- General Chemistry for Engineering Majors and
- CHEM 1435-General Chemistry Laboratory for Engineering Majors
- CHEM 1420-General Chemistry for Science Majors and
- CHEM 1440 - Laboratory Sequence for General Chemistry
- BIOL 1710 - Biology for Science Majors I
- BIOL 1720 - Biology for Science Majors II
- BIOL 1760 - Biology for Science Majors Laboratory


## 3 hours selected from

Any 4000-level TECM course.

## Note

The Computer Science foundation courses are CSCE 1030; CSCE 1040; CSCE 2100; MATH 1710; MATH 2700; CHEM 1410/CHEM 1430 or CHEM 1415/CHEM 1435 or BIOL 1710/BIOL 1760; PHYS 1710/PHYS 1730; and TECM 2700. Satisfactory completion of the foundation courses with a minimum GPA of 2.5 is prerequisite to taking advanced courses in the major. Each semester the student must receive advisement until the foundation courses have been successfully completed.

## 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

A grade point average of at least 2.0 is required for all advanced computer science and engineering courses.

## Information Technology, BA

A Bachelor of Arts 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 employment prospects.

The Bachelor of Arts 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.

## Educational Objectives

Graduates will:

1. Pursue graduate studies in information technology, computer science or related disciplines, and/or a career in a technology field utilizing skills from the information technology areas studied during the undergraduate program.
2. Act responsibly and ethically in their professional conduct and successfully engage in lifelong learning.
3. Work effectively in multi-disciplinary teams and exhibit the ability to communicate effectively.
4. Complete professional work assignments that exhibit the ability to design, develop, manage, maintain and implement information systems while applying IT and computing principles and practices to the solution of real problems.
The Bachelor of Arts degree with a major in information technology is accredited by the Computing Accreditation Commission (CAC) of ABET (abet.org), (111 Market Place, Suite 1050, Baltimore, MD 21202; 410-347-7700).

## Degree requirements

## Hours required and general/college requirements

## Major requirements

- CSCE 1030-Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2100-Computing Foundations I
- CSCE 2110 - Computing Foundations II
- CSCE 3055-IT Project Management
- CSCE 3220 - Human Computer Interfaces
- CSCE 3420 - Internet Programming
- CSCE 3530 - Introduction to Computer Networks
- CSCE 3600 - Principles of Systems Programming
- CSCE 3615 - Enterprise Systems Architecture, Analysis and Design
- CSCE 4010 - Social Issues in Computing
- CSCE 4350 - Introduction to Database Systems Design
- CSCE 4550 - Introduction to Computer Security
- CSCE 4905 - Information Technology Capstone I
- CSCE 4925 - Information Technology Capstone II


## CS admin concentration area, 9 hours

- CSCE 3535 - Introduction to Network Administration
- CSCE 3605 - Systems Administration
- CSCE 4355 - Database Administration


## Supporting area, 21 hours

21 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 - Directed Study
- CSCE 4920-Cooperative Education in Computer Science and Engineering
- CSCE 4940 - Special Computer Application Problem
- CSCE 4950-Special Problems in Computer Science and Engineering


## Other course requirements

- MATH 1680 - Elementary Probability and Statistics or
- MATH 1780 - Probability Models
- MATH 1710-Calculus I
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry or
- CHEM 1415-General Chemistry for Engineering Majors and
- CHEM 1435-General Chemistry Laboratory for Engineering Majors
or
- BIOL 1710 - Biology for Science Majors I and
- BIOL 1760 - Biology for Science Majors Laboratory
- PHYS 1710 - Mechanics and
- PHYS 1730-Laboratory in Mechanics
- TECM 2700-Technical Writing


## Note

The Information Technology foundation courses are CSCE 1030; CSCE 1040; CSCE 2100; MATH 1710; CHEM 1410/CHEM 1430 or CHEM 1415/CHEM 1435 or BIOL 1710/BIOL 1760; PHYS 1710/PHYS 1730, and TECM 2700. Satisfactory completion of the foundation courses with a minimum GPA of 2.5 is prerequisite to taking advanced courses in the major. Each semester the student must receive advisement until the foundation courses have been successfully completed.

## Minor

Optional.

## Electives

See CSE faculty advisor.

## Other requirements

A GPA of at least 2.0 on all advanced computer science and engineering courses.

## Grad Track Options

## 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 cumulative GPA of 3.3 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)
- Two letters of recommendation from computer science and engineering faculty members 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, 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 - Artificial Intelligence
- CSCE 5215 - Machine Learning
- CSCE 5220 - Computer Graphics
- CSCE 5250 - Introduction to Game Programming
- CSCE 5260-3D Game Programming
- CSCE 5265 - Advanced Topics in Game Development
- CSCE 5290 - Natural Language Processing
- CSCE 5350 - Database Systems I
- CSCE 5400 - Automata Theory
- CSCE 5430 - Software Engineering
- CSCE 5450 - Programming Languages
- CSCE 5510 - Wireless Communications
- CSCE 5520 - Wireless Networks and Protocols
- 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 - Biocomputing
- CSCE 5820 - Computational Epidemiology
- all remaining courses required for the BS with a major in computer engineering


## 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 cumulative GPA of 3.3 or higher is required at the time of application; average minimum GPA of 3.5 for all computer science core courses (CSCE 2610, CSCE 3110, CSCE 3600)
- Two letters of recommendation from computer science and engineering faculty members

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, 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 - Artificial Intelligence
- CSCE 5215 - Machine Learning
- CSCE 5220 - Computer Graphics
- CSCE 5250 - Introduction to Game Programming
- CSCE 5260 - 3D Game Programming
- CSCE 5265 - Advanced Topics in Game Development
- CSCE 5290 - Natural Language Processing
- CSCE 5350 - Database Systems I
- CSCE 5400 - Automata Theory
- CSCE 5430 - Software Engineering
- CSCE 5450 - Programming Languages
- CSCE 5510 - Wireless Communications
- CSCE 5520 - Wireless Networks and Protocols
- 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 - Biocomputing
- CSCE 5820 - Computational Epidemiology

All remaining required courses for the Computer Science, BS.

## 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.

Six hours of advanced courses must be taken at UNT.

## Required courses

- CSCE 1030-Computer Science I
- CSCE 1040-Computer Science II
- CSCE 2100-Computing Foundations I
- CSCE 2110 - Computing Foundations II


## Certificates

## Security certificate

The Department of Computer Science and Engineering offers courses leading to the Committee on National Security Systems (CNSS) National Standards:

- CNSS 4011: National Training Standard of Information Systems Security (INFOSEC) Professionals
- CNSS 4013: National Training Standard for System Administrators in Information Systems Security (INFOSEC)

For more information, visit the web page of the UNT Center for Information and Computer Security.

## Courses

- CSCE 1030-Computer Science I
- CSCE 1040 - Computer Science II
- CSCE 2610 - Assembly Language and Computer Organization
- CSCE 3530 - Introduction to Computer Networks
- CSCE 4550 - Introduction to Computer Security
- CSCE 4560 - Secure Electronic Commerce


## Secondary Teacher Certification

## Computer Science teacher certification

## Requirements utilizing the BA with a major in information technology

- CSCE 1030-Computer Science I
- CSCE 1040-Computer Science II
- CSCE 2100 - Computing Foundations I
- CSCE 2110 - Computing Foundations II
- CSCE 3055 - IT Project Management
- CSCE 3220 - Human Computer Interfaces
- CSCE 3420 - Internet Programming
- CSCE 3530 - Introduction to Computer Networks
- CSCE 3600 - Principles of Systems Programming
- CSCE 4010- Social Issues in Computing
- CSCE 4350 - Introduction to Database Systems Design
- CSCE 4444 - Software Engineering
- CSCE 4550 - Introduction to Computer Security
- CSCE 4905 - Information Technology Capstone I
- CSCE 4925 - Information Technology Capstone II


## Additional requirements

See major for additional course work and GPA requirements.

Upon completing the BA 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.

## Undergraduate Academic Certificates

## Game Programming certificate

The certificate in game programming is designed to prepare undergraduate students in the Department of Computer Science and Engineering to launch careers as programmers in the video game industry.

Visit larc.unt.edu for more information.

## Required courses

- CSCE 4210-Game Programming I
- CSCE 4215 - Programming Math and Physics for Games
- CSCE 4220 - Game Programming II
- CSCE 4250 - Topics in Game Development


# Department of Electrical Engineering 

Main Departmental Office<br>Discovery Park, Room B270<br>Mailing address:<br>1155 Union Circle \#310470<br>Denton, TX 76203-5017<br>940-891-6872<br>Fax: 940-891-6881<br>Web site: www.ee.unt.edu

## 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 and a Master of Science degree, each with a major in electrical engineering. In conjunction with Texas Women's University, the department 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 (111 Market Place, Suite 1050, Baltimore, MD 21202; 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. Apply knowledge of mathematics, engineering and science.
2. Design and develop projects, and conduct experiments to verify and validate them, as well as analyze and interpret data.
3. Develop project-based learning skills through design and implementation of a system, component or process that meets the needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.
4. Function on multi-disciplinary teams.
5. Identify, formulate and solve engineering problems.
6. Have an understanding of professional and ethical responsibility.
7. Communicate effectively.
8. Achieve broad education necessary to understand the impact of electrical engineering solutions in a global, economic, environmental and societal context.
9. Understand learning processes and concepts of learning to learn, and engage in lifelong learning.
10. Achieve knowledge of contemporary issues.
11. Use techniques, skills and computer-based tools for conducting experiments and carrying out designs.

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 as you study 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.

The Bachelor of Science degree with a major in electrical engineering is accredited by the Engineering Accreditation Commission (EAC) of ABET (abet.org), (111 Market Place, Suite 1050, Baltimore, MD 21202; 410-347-7700).

## 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 "General University Requirements and the University Core Curriculum" in the Academics section of this catalog and in the College of Engineering section of this catalog.

## Major requirements

A minimum of 36 semester hours, 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
- Four electrical engineering electives. (Electrical engineering electives are defined as 4000-level organized EENG courses, including EENG 4010 and EENG 4900 but excluding EENG 4910, EENG 4920, EENG 4951 and EENG 4990.)


## Project courses, 24 hours

- EENG 1910 - Project I: Learning to Learn (meets the Discovery requirement of the University Core Curriculum)
- EENG 1920 - Project II: Introduction to Electrical Engineering
- EENG 2910 - Project III: Digital System Design
- EENG 2920 - Project IV: Analog Circuit Design
- EENG 3910 - Project V: DSP System Design
- EENG 3920 - Project VI: Modern Communication System Design
- EENG 4910 - Project VII: Senior Design I
- EENG 4990 - Project VIII: Senior Design II (meets the Capstone requirement of the University Core Curriculum)


## Other required courses

- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I
- MATH 3680 - Applied Statistics
- CHEM 1415-General Chemistry for Engineering Majors and
- CHEM 1435-General Chemistry Laboratory for Engineering Majors or
- CHEM 1410 - General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry
- PHYS 1710 - Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- CSCE 1030-Computer Science I


## Business courses

- MGMT 3830-Operations Management and
- MGMT 3850 - Foundations of Entrepreneurship or
- A minor in business foundations


## Minor

A minor in business foundations; optional if the student elects to take MGMT 3830 and MGMT 3850.

## 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

Electrical Engineering foundation courses include EENG 1910, EENG 2610, MATH 1710, PHYS 1710/PHYS 1730, and TECM 2700. Satisfactory completion of all Electrical Engineering foundation courses with a minimum GPA of 2.5 is prerequisite for taking advanced courses in the major. Each semester the student will require mandatory advising until the foundation courses have been successfully completed. A cumulative GPA of at least 2.0 is required for all Electrical Engineering courses.

## Grad Track Options

## 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

Students applying to the grad track option should be majors in the department's electrical engineering BS program. Students are eligible for acceptance at the end of their junior year. One benchmark is whether the student is ready to take EENG 4910 - Project VII: Senior Design I in the following semester. Other requirements include:

- A cumulative GPA of 3.3 or higher is required at the time of application
- Two letters of recommendation from electrical engineering faculty members

The student's application will be reviewed by an undergraduate and graduate committee. Once approved by the department, the student must apply to the Toulouse Graduate School before the first semester of their senior year.

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.

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 full admitted to the MS program.

The student must enroll in graduate school in the long semester 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 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 courses from the courses listed below in the fourth 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 5520 - Design and Testing of Digital Systems
- EENG 5530 - Analog Integrated Circuit Design
- EENG 5610 - Digital Signal Processing
- EENG 5810 - Digital Communications
- all remaining courses required for the BS with a major in electrical engineering

Year five required courses:

- all remaining courses required for the MS with a major in electrical engineering (see Graduate Catalog)


## Dual Degrees

## Electrical Engineering, BS and Mathematics, BS

The dual degree program in mathematics and engineering combines the strengths of Texas Woman’s University (TWU) and University of North Texas to permit students to earn two degrees simultaneously while preparing for a professional career in engineering.

Undergraduate students attend TWU for three years as mathematics majors in the Department of Mathematics and Computer Science, then continue their education in the College of Engineering at UNT for approximately two additional years. After completion of the program, students receive the Bachelor of Science degree with a major in mathematics from TWU and the Bachelor of Science degree with a major in electrical engineering from UNT.

The following outline of courses is designed to satisfy the requirements of the TWU undergraduate core curriculum and of a Bachelor of Science degree in mathematics. Additional courses will be required by UNT. For the TWU degree, a total of at least 124 hours is required, including 36 advanced hours. Certain course work completed at UNT will be taken in transfer to complete the TWU degree. Interested students should consult the current undergraduate catalog for details regarding the TWU Undergraduate Core Curriculum. The minor suggested in the mathematics degree at TWU is computer science. However, the engineering major selected at UNT may serve as the minor for the TWU degree. If the degree in engineering at UNT is not completed, the student may complete the TWU degree in mathematics with appropriate additional work.

Scholarships and/or summer employment are available for the academically able student. Through TWU’s Cooperative Education program, students may earn academic credit and income while gaining on-the-job experience related to engineering.

A 2.5 grade point average (GPA) is the minimum criterion for transfer admission consideration into most UNT engineering programs after completion of the first three years of work at TWU. Those applicants who have completed all foundation courses for engineering (see UNT catalog), have a 2.5 GPA in the foundation course work and a 2.5 GPA in all transferable work, will be admitted upon application to UNT. No grade lower than C is accepted in any mathematics or computer science courses at TWU. While a 2.0 GPA is the UNT requirement for admission after completion of 60 semester credit hours at TWU, a 2.5 is required for admission into UNT College of Engineering degree programs. Students may apply for concurrent enrollment at UNT prior to completion of their work at TWU by using the appropriate application and following the admissions procedure listed in the UNT catalog.

## Suggested courses

The courses listed below will be accepted by the College of Engineering at University of North Texas for those students who successfully transfer from Texas Woman’s University into Electrical Engineering within the College of Engineering, provided the student has duly received credit for the courses at TWU. The student should work closely with academic advisors at TWU and UNT to assure that he or she has satisfied core curriculum at both universities.

At TWU, students take a broad range of courses in mathematics, computer science, humanities, and social and natural sciences, as well as the basic introductory courses needed to enter studies in engineering.

## UNT courses for dual degree

- EENG 1910 - Project I: Learning to Learn
- EENG 1920 - Project II: Introduction to Electrical Engineering
- EENG 2610-Circuit Analysis
- EENG 2620 - Signals and Systems
- EENG 2910 - Project III: Digital System Design
- EENG 2920 - Project IV: Analog Circuit Design
- EENG 3410 - Engineering Electromagnetics
- EENG 3510 - Electronics I (Devices and Materials)
- EENG 3520-Electronics II
- EENG 3710-Computer Organization
- EENG 3810-Communications Systems
- EENG 3910 - Project V: DSP System Design
- EENG 3920 - Project VI: Modern Communication System Design
- EENG 4010-Topics in Electrical Engineering
- EENG 4710 - VLSI Design
- EENG 4810-Computer Networks
- EENG 4910 - Project VII: Senior Design I
- EENG 4990 - Project VIII: Senior Design II
- TECM 2700-Technical Writing
- MGMT 3830-Operations Management


## 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 2620 - Signals and Systems
- EENG 2710 - Digital Logic Design
- EENG 2910 - Project III: Digital System Design or
- EENG 2920 - Project IV: Analog Circuit Design
- 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.)


## Department of Engineering Technology

Main Departmental Office<br>Discovery Park<br>3940 N. Elm Street, Suite F115<br>Denton, TX 76207-7102<br>940-565-2022<br>Fax: 940-565-2666<br>E-mail: etec@unt.edu<br>Web site: engineering.unt.edu/technology<br>\section*{Enrique Barbieri, Chair}<br>\section*{Faculty}

Engineering technology is the profession in which a knowledge of mathematics and natural sciences gained by higher education, experience and practice is devoted primarily to the implementation and extension of existing technology for the benefit of humanity (Engineering Technology Council, 1994). Increasing technological aspects of all modern activities have led to the need for highly skilled persons to design, construct, install, maintain, manage, operate, produce and sell sophisticated technical systems and products.

Departmental programs emphasize integrated design and the application of theoretical concepts. Classes of carefully coordinated laboratory experiences and lectures are utilized. Courses emphasize theoretical concepts and principles for solutions applicable to modern technological problems. Students are prepared for rapidly changing life experiences with mathematics, science and general education. This preparation is designed to enable graduates to remain current, as well as advance, in their professional field.

## Vision

In collaboration with industry, other institutions, and university departments, the Department of Engineering Technology is focused on achieving excellence in teaching, innovative applied research, and service. With these concentrations in mind, our goal is to become the leading provider of engineering technologists to the state of Texas and a resource for industrial research.

## Mission

Our mission is to provide our students with the technical skills and the fundamental engineering technology background needed to be successful in today's rapidly changing workplace. In addition to developing technical competence, the department shall aim to develop and enhance the students' written and oral communication skills, knowledge and application of current technology, and teamwork engineering skills to perform safe and sound engineering technology work in a professional and ethical manner. Our department will build and maintain academic and research relationships with local and regional industries to continue to provide relevant curricula and to enhance the employment opportunities for our students.

## Scholarships

The department offers scholarships designated specifically for studies in engineering technology. For further information, inquire in the departmental office.

## Majors

## Construction Engineering Technology, BSET


#### Abstract

A Bachelor of Engineering Technology with a major in construction engineering technology provides a holistic "systems engineering" emphasis with a commitment to preparing you to be a productive citizen, leader and technology innovator in a global society.


The construction engineering technology major provides educational experiences for the development of technical knowledge and skills necessary in today's construction industry. The program provides education in both the management and technical aspects, thus providing optimum opportunities for 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, computer design, 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.

Construction engineering technology is accredited by the Engineering Technology Accreditation Commission of ABET (abet.org), (111 Market Place, Suite 1050, Baltimore, MD 21202; 410-347-7700).

## 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 124 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 the College of Engineering requirements.

## Major requirements, 75 hours

75 hours, chosen with the advice of an academic advisor within the department.

- ACCT 2010-Accounting Principles I (Financial Accounting)
- BCIS 3610 - Basic Information Systems
- BLAW 3430-Legal and Ethical Environment of Business
- BLAW 4770-Real Estate Law and Contracts
- CNET 1160 - Construction Methods and Materials *
- CNET 2180 - Construction Methods and Surveying *
- CNET 2300 - Architectural Drawing *
- 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 4620 - Advanced Design in Cold-Formed Steel Structures
- CNET 4780-Senior Design I
- CNET 4790 - Senior Design II
- ECON 1100-Principles of Microeconomics
- ENGR 2301 - Statics
- ENGR 2332 - Mechanics of Materials
- MGMT 3830-Operations Management
- 5 hours of technical electives


## Other requirements

- A grade of C or better is required for all major courses and elective courses counting toward the major.
- Courses taken to satisfy the technical options in the major must be approved by the academic 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 Engineering.

## Other course requirements

Students registered for fall or spring term/semesters must register for mathematics until the requirement has been satisfied, unless approved by the department chair. A minimum of 12 semester hours of mathematics is required.

- MATH 1710-Calculus I
- MATH 1720-Calculus II
- ENGR 1030-Technological Systems ***
- ENGR 1060-Communication and Ethics
- PHYS 1710 - Mechanics *** and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism **
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- CHEM 1410-General Chemistry for Science Majors **
- CHEM 1430 - Laboratory Sequence for General Chemistry
- TECM 2700-Technical Writing * (required instead of ENGL 1320)


## CNET foundation courses

CNET foundation courses include CNET 1160, CNET 2180, CNET 2300, PHYS 1710, and ENGR 1030. Satisfactory completion of the CNET foundation courses with a minimum GPA of 2.5 is prerequisite to taking advanced courses in the major. Mandatory advisement is required until the foundation courses have been successfully completed.

## Notes

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* satisfies CNET foundations requirement
** may be used to satisfy a portion of the University Core Curriculum
*** satisfies CNET foundations requirement; also may be used to satisfy a portion of the University Core Curriculum
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#### Abstract

A Bachelor of Science in Engineering Technology with a major in electrical engineering technology provides a holistic "systems engineering" emphasis with a commitment to preparing you to be a productive citizen, leader and technology innovator in a global society. We offer you research opportunities using the latest technology inside and outside the classroom.

The electrical engineering technology major is designed to develop the technical and personal knowledge and skill necessary to compete successfully in today's electrical industries. The program builds on a strong foundation in mathematics and science and includes courses in network analysis, linear electronics, digital electronics, communication systems and control systems. Computer utilization is an integral part of all electrical courses and most courses include a laboratory to provide the necessary hands-on experience for an applied program of study. The student's technical background is further enhanced by taking selected courses from other engineering technology majors. The development of technical communication and presentation skills is a requirement throughout the curriculum.

Electrical engineering technology is accredited by the Engineering Technology Accreditation Commission of ABET (abet.org), (111 Market Place, Suite 1050, Baltimore, MD 21202; 410-347-7700).


## Degree requirements

The following requirements must be satisfied for a Bachelor of Science in Engineering Technology with a major in electrical engineering technology.

## 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 Academics section of this catalog and the College of Engineering requirements.

## Major requirements, 72 hours

Chosen with the advice of an academic advisor within the department.

- ELET 1720-Introduction to Electronics
- ELET 2740-Special Electronic Devices (satisfies ELET foundations requirement)
- ELET 3700-Advanced Circuit Analysis
- ELET 3750-Embedded C-Programming
- ELET 3760 - Design of DSP Systems
- ELET 3980 - Digital Control of Industrial Processes
- ELET 4300 - Embedded System Organization
- ELET 4320 - Electronic Communications II
- ELET 4330 - Instrumentation System Design
- ELET 4340 - Digital Logic Design Techniques
- ELET 4710 - Electronic Communications I
- ELET 4720 - Control Systems
- ELET 4780-Senior Design I
- ELET 4790-Senior Design II
- ENGR 2405 - Circuit Analysis
- ENGR 2415-Circuit Analysis Lab
- ENGR 2720 - Digital Logic (satisfies ELET foundations requirement)
- ENGR 2730 - Digital Logic Lab (satisfies ELET foundations requirement)
- ENGR 2750 - Introduction to Microprocessors
- CSCE 1030 - Computer Science I
- 5 hours of technical electives
- 6 advanced hours of technical options


## Other course requirements

Students registering for fall or spring term/semester must register for mathematics until the requirement has been satisfied, unless approved by the department chair.

- MATH 1710-Calculus I (satisfies ELET foundations requirement)
- MATH 1720 - Calculus II
- ENGR 1030 - Technological Systems (may be used to satisfy the Discovery requirement of the University Core Curriculum; also satisfies ELET foundations requirement)
- ENGR 1060-Communication and Ethics
- PHYS 1710 - Mechanics (may be used to satisfy the Natural Sciences requirement of the University Core Curriculum) and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism (may be used to satisfy the Natural Sciences requirement of the University Core Curriculum)
and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- TECM 2700 - Technical Writing is required instead of ENGL 1320 (satisfies ELET foundations 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 Engineering.

## Other requirements

- A grade of C or better is required for all major courses and elective courses counting toward the major.
- Courses taken to satisfy the technical options in each major must be approved by the academic advisor.

ELET foundation courses include ENGR 1030, ENGR 2720/ENGR 2730, ELET 2740, MATH 1710 and TECM 2700. Satisfactory completion of ELET foundation courses with a minimum GPA of 2.5 is prerequisite to taking advanced courses in the major. Mandatory advisement is required each semester until the foundation courses have been successfully completed.

## Mechanical Engineering Technology, BSET

A Bachelor of Science in Engineering Technology with a major in mechanical engineering technology provides a holistic "systems engineering" emphasis with a commitment to preparing you to be a productive citizen, leader and technology innovator in aglobal society.

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.

Mechanical engineering technology is accredited by the Engineering Technology Accreditation Commission of ABET (abet.org), (111 Market Place, Suite 1050, Baltimore, MD 21202; 410-347-7700).

## Degree requirements

## Hours required and general/college requirements

A minimum of 124 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 the College of Engineering requirements.

## Major requirements, 72 hours

72 hours, chosen with the advice of an academic advisor within the department.

- MEET 3650 - Design of Mechanical Components
- MEET 3940 - Fluid Mechanics Applications
- 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
- ENGR 1304 - Engineering Graphics *
- ENGR 2301 - Statics *
- ENGR 2302 - Dynamics
- ENGR 2332 - Mechanics of Materials
- ENGR 2405 - Circuit Analysis
- ENGR 2415 - Circuit Analysis Lab
- ENGR 3450 - Engineering Materials and
- ENGR 3451 - Engineering Materials Lab
- MFET 3110 - Machining Principles and Processes
- MFET 4190 - Quality Assurance
- MFET 4200 - Engineering Cost Analysis
- MFET 4210-CAD/CAM System Operations
- ELET 3980 - Digital Control of Industrial Processes
- CSCE 1020 - Program Development
- 3 hours of technical electives
- 8 hours of advanced technical electives


## Other course requirements

Students registering for fall or spring term/semesters must register for mathematics until the requirement has been satisfied, unless approved by the department chair. A minimum of 12 semester hours of mathematics is required.

- MATH 1710 - Calculus I *
- MATH 1720-Calculus II
- ENGR 1030 - Technological Systems **
- ENGR 1060-Communication and Ethics
- PHYS 1710-Mechanics *** and
- PHYS 1730 - Laboratory in Mechanics *
- PHYS 2220 - Electricity and Magnetism ** and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- CHEM 1410-General Chemistry for Science Majors ** and
- CHEM 1430-Laboratory Sequence for General Chemistry
- TECM 2700-Technical Writing * is required instead of ENGL 1320


## Notes

* satisfies MEET foundations requirement
** may be used to satisfy a portion of the University Core Curriculum
*** satisfies MEET foundations requirement; also 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

- A grade of C or better is required for all major courses and elective courses counting toward the major.
- Courses taken to satisfy the technical options in the major must be approved by the academic advisor.

MEET foundation courses include ENGR 1304, TECM 2700, MATH 1710, PHYS 1710/PHYS 1730, and ENGR 2301. Satisfactory completion of the MEET foundation courses with a minimum GPA of 2.5 is prerequisite to taking advanced courses in the major. Mandatory advisement is required each semester until the foundation courses have been successfully completed.

## Nuclear Engineering Technology, BSET (not currently accepting students)

This program is not currently accepting students.

A Bachelor of Science in Engineering Technology with a major in nuclear engineering technology teaches students to safely apply mathematics, science and nuclear principles for production of power, waste disposal, medicine and manufacturing.

The nuclear engineering technology major is designed to provide breadth of training for engineers and related technical personnel at the Luminant Comanche Peak Steam Electric Station. The program has a strong foundation in mathematics and science and adds nuclear engineering principles ranging from materials science to reactor design. Courses in fluid mechanics, thermodynamics, electrical circuit design, electric power generation and automatic control systems augment the curriculum. The program enhances the reactor operator training provided by Luminant by stressing the fundamentals of underlying physical and engineering principles behind many plant operating procedures.

Nuclear engineering technology is accredited by the Technology Accreditation Commission of ABET (111 Market Place, Suite 1050, Baltimore, MD 21202; 410-347-7700).

## Degree requirements

## Hours required and general/college requirements

A minimum of 124 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 the College of Engineering requirements.

## Major requirements, 72 hours

72 hours, chosen with the advice of an academic advisor within the department.

- NUET 3910 - Principles of Nuclear Technology
- NUET 3920 - Nuclear Instrumentation and Measurement
- NUET 3930 - Radiation Biology and Safety
- NUET 3970 - Electronic Devices and Controls
- NUET 4050 - Nuclear Reactor Theory
- NUET 4780 - Senior Design I
- NUET 4790 - Senior Design II
- NUET 4930 - Reactor Engineering Design and Operation
- NUET 4940 - Electrical Power Generation and Transmission
- ENGR 1060-Communication and Ethics
- ENGR 2301 - Statics
- ENGR 2405 - Circuit Analysis
- ENGR 2415 - Circuit Analysis Lab
- MEET 3940 - Fluid Mechanics Applications
- MEET 3990-Applied Thermodynamics
- MFET 4190-Quality Assurance
- MATH 1680 - Elementary Probability and Statistics
- CSCE 1020 - Program Development
- 3 hours of technical elective
- 16 hours ( 6 advanced) of technical options approved by advisor.


## Other course requirements

- MATH 1710-Calculus I
- MATH 1720-Calculus II
- ENGR 1030-Technological Systems
- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics (may be used to satisfy the Natural Sciences requirement of the University Core Curriculum)
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics (may be used to satisfy the Natural Sciences requirement of the University Core Curriculum)
- CHEM 1410-General Chemistry for Science Majors and
- CHEM 1430 - Laboratory Sequence for General Chemistry (may be used to satisfy the Natural Sciences requirement of the University Core Curriculum)
- TECM 2700 - Technical Writing is required instead of ENGL 1320 (satisfies College of Engineering Core 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 Engineering.

## Other requirements

- A grade of C or better is required for all major courses and elective courses counting toward the major.
- Courses taken to satisfy the technical options in the major must be approved by the academic advisor.


## Grad Track Options

## Construction Engineering Technology, BSET with grad track option leading to Engineering Technology, MS

The Department of Engineering Technology offers a grad track option for currently enrolled UNT undergraduate students majoring in construction engineering technology (CNET).

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 construction engineering technology BSET program. Students are eligible to apply to the grad track option during their junior year. Approval will be considered after the student has completed at least 75 credit hours (a benchmark of eligibility is whether or not the student is ready to take CNET 4780 - Senior Design I in the following fall semester). Other requirements include:

- A cumulative GPA of 3.3 or higher is required at the time of application. Students in the program must maintain a GPA of 3.3 or higher.
- Two letters of recommendation from construction engineering technology faculty members The student's application will be reviewed by both the CNET 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 BSET and the MS with a major in engineering technology. Students should earn a B or higher in these courses to be counted toward the MS.

Students admitted to the grad track option will be conditionally admitted to the MS program. Students who satisfy all requirements of the BSET and who maintain a 3.0 or higher GPA will be fully admitted to the MS program.

Undergraduate students who have been accepted to the grad track option should complete all BSET 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 his or her BSET and should take the remaining graduate courses in the following year(s) to compete the MS. If the student does not enroll in graduate school in the long semester after finishing the BSET 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 in the grad track option must register for three graduate courses:

- MGMT 5240 - Project Management
- MSET 5800 - Studies in Engineering Technology

Plus one elective course selected from the following with the approval of the advisor:

- MSET 5200 - Advanced Construction Scheduling
- MSET 5220 - Building Information Modeling
- MSET 5230 - Risk Management in Construction
- MSET 5900-Special Problems

The three graduate courses will replace CNET 4180, CNET 4620, and one technical elective.

See the BSET in Construction Engineering Technology for the remainder of the requirements for the bachelor's degree.

## Electrical Engineering Technology, BSET with grad track option leading to Engineering Technology, MS

The Department of Engineering Technology offers a grad track option for currently enrolled UNT undergraduate students majoring in electrical engineering technology (ELET).

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 electrical engineering technology BSET program. Students are eligible to apply to the grad track option during their junior year, after completing at least 75 credit hours (a benchmark of eligibility is whether or not the student is ready to take ELET 4780 - Senior Design I in the following fall semester). Other requirements include:

- A cumulative GPA of 3.3 or higher is required at the time of application
- Two letters of recommendation from electrical engineering technology 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, the student is eligible to take specified graduate courses for credit toward the BSET and MS degrees. 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 Students who satisfy all requirements of the BSET degree and who complete the graduate courses required toward the MS will be evaluated for unconditional admission to the MS degree program.

Undergraduate students who have been accepted to the grad track option should complete all BSET 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 BSET 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 BSET 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 in the grad track option will replace three (3) ELET 4XXX courses with the corresponding MSET 5XXX courses from the list below for a total of nine (9) credit hours counted toward both the BSET and MS degrees.

- MSET 5300 - Embedded Systems Organization (replaces ELET 4300)
- MSET 5310 - Industrial Process Controls (replaces ELET 4720)
- MSET 5320 - Introduction to Telecommunications (replaces ELET 4320)
- MSET 5330 - Instrumentation System Design (replaces ELET 4330)
- MSET 5340 - Digital Logic Design Techniques (replaces ELET 4340)

See Electrical Engineering Technology, BSET for the remainder of the requirements for the bachelor's degree.

## Mechanical Engineering Technology, BSET with grad track option leading to Engineering Technology, MS

The Department of Engineering Technology offers a grad track option for currently enrolled UNT undergraduate students majoring in mechanical engineering technology (MEET).

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 mechanical engineering technology BSET program. Students are eligible to apply for the grad track option during their junior year, after completing at least 75 credit hours (a benchmark of eligibility is whether or not the student is ready to take MEET 4780 - Senior Design I in the following fall semester). Other requirements include:

- A cumulative GPA of 3.3. or higher is required at the time of application
- Two letters of recommendation from mechanical engineering technology 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, the student is eligible to take specified graduate courses for credit toward the BSET and MS degrees. 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. Students who satisfy all requirements of the BSET degree and who complete the graduate courses required toward the MS will be evaluated for unconditional admission to the MS degree program.

Undergraduate students who have been accepted to the grad track option should complete all BSET 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 BSET 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 BSET 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 in the grad track option must register for three graduate courses. These three courses will replace nine (9) hours of technical electives currently required in the MEET undergraduate program.

- MSET 5020 - Design of Experiments
- MSET 5040 - Analytical Methods in Engineering Technology

Plus one course selected from:

- MSET 5030 - Product Design and Development
- MSET 5100 - Nontraditional Manufacturing Processes
- 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 5800 - Studies in Engineering Technology
- MSET 5900 - Special Problems
- Technical course substitution (with approval of major professor)

See the Mechanical Engineering Technology, BSET for the remainder of the requirements for the bachelor's degree.

## Minors

## General Engineering Technology minor

The minor in general engineering technology requires 18 semester hours (6 advanced), chosen with approval of the engineering technology department chair.

Contact the Department of Engineering Technology for information on pre-approved minors in construction, electronics, mechanical and nuclear engineering technology.

# Department of Materials Science and Engineering 

Main Departmental Office<br>Discovery Park, Room E132<br>Mailing address:<br>1155 Union Circle \#305310<br>Denton, TX 76203-5017<br>940-565-3260<br>Fax: 940-565-4824<br>Web site: engineering.unt.edu/materials<br>\section*{Andrey Voevodin, Chair}<br>\section*{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 to local industries and is setting up relationships 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, 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.

## 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. 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 apply knowledge of mathematics, science, and engineering [ABET (a)].
2. An ability to design and conduct experiments, as well as to analyze and interpret data [ABET (b)].
3. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability [ABET (c)].
4. An ability to function on multidisciplinary teams [ABET (d)].
5. An ability to identify, formulate, and solve engineering problems [ABET (e)].
6. An understanding of professional and ethical responsibility [ABET (f)].
7. An ability to communicate effectively [ABET (g)].
8. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context [ABET (h)].
9. A recognition of the need for, and an ability to engage in life-long learning [ABET (i)].
10. A knowledge of contemporary issues [ABET (j)].
11. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice [ABET (k)].

## Research

The department has an active and robust research portfolio that ranges from fundamental studies to applications-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. In these programs, it is common to find both undergraduate and graduate students engaged in research, laboratories, and centers/institutes, including the following examples.

## 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
- Advanced Metallic Materials Processing Laboratory
- The Materials Synthesis and Processing Laboratory
- The Optoelectronic and Thin Films Laboratory


## Centers/Institutes

- 2 NSF industry/university cooperative research centers (I/UCRCs)

0 Center for Advanced Non-Ferrous Structural Alloys (CANFSA)
0 Center for Friction Stir Processing (CFSP)

- The Air Force funded Institute for Science and Engineering Simulation (ISES)


## 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.

The Bachelor of Science degree with a major in materials science and engineering is a new program designed to meet ABET criteria.
Accreditation for this degree is being sought.

## 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 Academics section of this catalog and the College of Engineering requirements.

## Major requirements

A minimum of 52 semester hours, including:

- 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 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 (6 hours)


## Other required courses

- CHEM 1410-General Chemistry for Science Majors
- CHEM 1420-General Chemistry for Science Majors
- CHEM 1430 - Laboratory Sequence for General Chemistry
- ENGR 2301 - Statics
- ENGR 2332 - Mechanics of Materials
- ENGR 3450 - Engineering Materials
- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 3410 - Differential Equations I
- PHYS 1710 - Mechanics
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- PHYS 3010 - Modern Physics
- 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

A grade point average of at least 2.0 is required for all materials science and engineering courses.

## Grad Track Options

## 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.

See the Materials Science and Engineering, BS for the remainder of the requirements for the bachelor's degree.

## Minors

## Materials Science and Engineering minor

The minor in materials science and engineering requires a total of 18 semester credit hours:

## Required

- ENGR 3450-Engineering Materials
- 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 and Energy Engineering 

Main Departmental Office<br>Discovery Park, Room F101<br>Mailing address:<br>1155 Union Circle \#311098<br>Denton, TX 76203-5017<br>940-565-2400<br>Fax: 940-369-8675<br>Web site: www.mee.unt.edu

## Yong X. Tao, Chair

## Faculty

The Department of Mechanical and Energy Engineering at the University of North Texas 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 thermal-fluid sciences, energy production, and solid mechanics. 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 and energy engineering; and (4) to collaborate with engineers in industry, national laboratories, and government agencies in finding the solutions to national and global problems related to energy use and its environmental impacts.

## Mission and Vision

The mission of the Department of Mechanical and Energy Engineering is to harness the power of ideas by providing a student-centered environment, fostering a strong culture of learning, promoting high quality scholarly activities, serving the engineering profession and society, and advancing regional economic development. We seek to accomplish this mission by:

- Offering high quality and innovative educational programs at the undergraduate and graduate levels.
- Pursuing innovation, excellence, and leadership in scholarly activities.
- Serving the engineering profession and humanity with faculty and student expertise.

The vision of the Department of Mechanical and Energy Engineering is to create an outstanding, innovative, and interdisciplinary studentcentered academic program that emphasizes the fundamentals of mechanical engineering, modern applications pertaining to energy production, power management and distribution, and life-long learning skills, within a research-and-project oriented environment.

## Majors

## 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 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, computer science 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.

The Bachelor of Science degree with a major in mechanical and energy engineering is accredited by the Engineering Accreditation Commission (EAC) of ABET (abet.org), (111 Market Place, Suite 1050, Baltimore, MD 21202; 410-347-7700).

## Program educational objectives

1. Graduates are successfully employed in mechanical and energy engineering positions and other related fields.
2. Graduates engage in lifelong learning demonstrated by advanced education, professional development activities and/or other careerappropriate options.
3. Graduates successfully demonstrate technical and leadership competence.

## Student outcomes

Upon completion of the Bachelor of Science with a major in mechanical and energy engineering, students are enabled to achieve the following outcomes:
(a) an ability to apply knowledge of mathematics, science and engineering
(b) an ability to design and conduct experiments, as well as to analyze and interpret data
(c) an ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability
(d) an ability to function on multidisciplinary teams
(e) an ability to identify, formulate and solve engineering problems
(f) an understanding of professional and ethical responsibility
(g) an ability to communicate effectively
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context
(i) a recognition of the need for, and an ability to engage in, life-long learning
(j) a knowledge of contemporary issues
(k) an ability to use the techniques, skills and modern engineering tools necessary for engineering practice

## 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 Academics section of this catalog and the College of Engineering requirements.

## Major requirements

## Engineering fundamentals requirements

A minimum of 10 credit hours of

- ENGR 1304 - Engineering Graphics
- ENGR 3450 - Engineering Materials
- ENGR 3451 - Engineering Materials Lab
- ENGR 2405 - Circuit Analysis
or
- EENG 2610-Circuit Analysis


## Major requirements

A minimum of 50 credit hours, including

- MEEN 1000 - Discover Mechanical and Energy Engineering
- MEEN 2110 - Engineering Data Analysis
- MEEN 2210 - Thermodynamics I
- MEEN 2240 - Programming for Mechanical Engineers
- MEEN 2301 - Mechanics I
- MEEN 2302 - Mechanics II
- MEEN 2332 - Mechanics III
- 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-Analytical Methods for MEE Engineers
- MEEN 4150 - Mechanical and Energy Engineering Systems Design I
- MEEN 4250-Capstone Design in Mechanical and Energy Engineering


## Energy engineering electives

6 semester credit hours from the following courses

- MEEN 3125 - Thermal Engineering Projects
- MEEN 4110 - Alternative Energy Sources
- MEEN 4112 - Fundamentals of Nuclear Engineering
- MEEN 4300-Intermediate Thermodynamics
- MEEN 4310 - Intermediate Heat Transfer
- MEEN 4315 - Nanoscale Energy Transport Process
- MEEN 4320 - Mechanical Systems for Buildings
- MEEN 4330 - Introduction to Combustion Science and Engineering
- MEEN 4332 - Fundamentals of Air Pollution Engineering
- 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
- MEEN 4410 - Energy Harvesting System Design
- MEEN 4810 - Topics in Mechanical and Energy Engineering


## Technical electives

6 semester credit hours from the following courses

- MEEN 4120 - Aerospace Fundamentals
- MEEN 4130 - Failure of Deformable Bodies
- MEEN 4140 - Finite Element Analysis
- MEEN 4151 - Manufacturing of Renewable Biocomposites for Lightweight Energy Efficient Structure
- MEEN 4152 - Mechanics of Composites and Foams for Lightweight Energy Efficient Structures
- MEEN 4160 - Mechanical Vibrations
- MEEN 4415 - Smart Materials and Structures
- MEEN 4488 - Introduction to Microfluidics
- MEEN 4510 - Electronic Manufacturing Technologies
- MEEN 4800 - Topics in Mechanical and Energy Engineering
- MEEN 4930 - Undergraduate Research
- MFET 4190- Quality Assurance


## Other required courses

- MATH 1710-Calculus I
- MATH 1720-Calculus II
- MATH 2700 - Linear Algebra and Vector Geometry
- MATH 2730 - Multivariable Calculus
- MATH 3410 - Differential Equations I
- CHEM 1415-General Chemistry for Engineering Majors
or
- CHEM 1410-General Chemistry for Science Majors
- CHEM 1435-General Chemistry Laboratory for Engineering Majors or
- CHEM 1430-Laboratory Sequence for General Chemistry
- PHYS 1710-Mechanics and
- PHYS 1730 - Laboratory in Mechanics
- PHYS 2220 - Electricity and Magnetism and
- PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
- TECM 2700-Technical Writing

Minor

## None required.

## Other requirements

BS-MEEN foundation courses include TECM 2700, MATH 1710, PHYS 1710/PHYS 1730, MEEN 1000, MEEN 2210 and MEEN 2302. Satisfactory completion of BS-MEEN foundation courses with a minimum GPA of 2.5 is prerequisite to take advanced courses in the major. Each semester the student must receive mandatory advisement until the foundation courses have been successfully completed.

A grade point average of at least 2.0 is required for all major requirement courses and approved electives. Enrollment in the upper-division MEEN courses requires successful completion of all the required lower-division MEEN and ENGR prefix courses.

## Grad Track Options

## Mechanical and Energy Engineering, BS with grad track option leading to Mechanical and Energy Engineering, MS

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

## Application requirements and procedures

- Mechanical and energy engineering major.
- Junior status (must have completed at least 75 credit hours and be ready to enroll in the MEE 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 MEE core courses (MEEN 2210, MEEN 3110, MEEN 3120, MEEN 3250).
- Two letters of recommendation from MEE faculty members.
- The student's application will be reviewed by both the MEE undergraduate advisor and the MEE graduate advisor.
- Once the application is approved by the MEE 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 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, he or she will be fully admitted into the master's program.


## Policies related to completion of programs

- 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 Master of Science with a major in mechanical and energy engineering. 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:

- MEEN 5300 - Advanced Thermodynamics (fall semester of year four)
- MEEN 5110 - Alternative Energy Sources (spring semester of year four)
- MEEN 5315 - Nanoscale Energy (spring semester of year four)

The above courses substitute for the following requirements of the bachelor's degree:

- the corresponding number of hours of technical and/or energy electives

See the Bachelor of Science with a major in mechanical and energy engineering for the remainder of the requirements for the bachelor's degree.

Note: The graduate courses taken in year four may be changed only if approved by both the MEE undergraduate coordinator and the MEE graduate advisor.

## Minors

## 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 - Alternative Energy Sources
- MEEN 4140 - Finite Element Analysis
- Or other 3000- or 4000-level MEEN courses with the approval of MEE 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 - Mechanical Systems for Buildings
- 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


# College of Information 

Main Office<br>Discovery Park, Room E290<br>3940 N. Elm St.<br>Denton, TX 76207-7102<br>Mailing address:<br>1155 Union Circle \#311068<br>Denton, TX 76203-5017<br>940-369-8164<br>Fax: 940-369-8525<br>Web site: ci.unt.edu

## Greg Jones, Interim Dean

Yunfei Du, Interim Associate Dean

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 Academics 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 consult a degree program advisor in the Department of Learning Technologies, Department of Library and Information Sciences or linguistics program.

## Programs of study

Programs of study are listed under each department.

## Majors

## Linguistics, BA

A Bachelor of Arts with a major in linguistics ensures that you receive the proper training and knowledge to have a successful career in the field of linguistics. The curriculum allows you to immerse yourself in the study of language and to understand its structure, use, design and application.

## Degree requirements

The following requirements must be satisfied for a Bachelor of Arts with a major in linguistics.

## 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 Academics section of this catalog.

## Major requirements, 42 hours

## Required courses, 27 hours

- LING 2050 - The Language of Now: Pop Culture, Technology and Society
- LING 3070 - Introduction to Linguistics
- LING 3080 - Language and Society
- LING 3090 - Discourse Analysis: Talking and Telling
- LING 4040 - Phonetics and Phonology: The Sound Patterns of Language
- LING 4050 - Morphology and Syntax
- LING 4060 - Scientific Methods
- LING 4130 - Language Data Management: Methods and Tools for Analysis and Dissemination
- LING 4950 - Senior Capstone Field Experience


## Plus 15 hours selected from

- LING 3040 - Language and Power
- LING 3050-Animal Communication
- LING 4010 - English Language in America
- LING 4020 - Structure of Modern English
- LING 4030-Acquisition of English as a Second Language
- LING 4070 - History of the English Language
- LING 4080 - Teaching English as a Second Language
- LING 4090 - Semantics and Pragmatics
- LING 4100 - Poetics
- LING 4120 - Migration and Language Contact
- LING 4140 - Computational Linguistics
- LING 4410 - World Englishes


## Foreign language, 3-12 hours

Students must attain Intermediate II (2050) level (prerequisite for 2050 course is 2040; prerequisite for 2040 course is 1020; prerequisite for 1020 course is 1010).

## Minor

Optional. Linguistics majors who would like to gain knowledge and skills in concepts, practices and technologies for managing information may choose to minor in information science.

## 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 Information.

## Other requirements

A minimum grade of C in each course counted toward the major.

## Minors

## Linguistics minor

To minor in linguistics, students must complete 18 hours.

## Required courses

- LING 3070 - Introduction to Linguistics
- LING 3090 - Discourse Analysis: Talking and Telling
- LING 4040 - Phonetics and Phonology: The Sound Patterns of Language
- LING 4050 - Morphology and Syntax


## Plus 6 hours selected from

- LING 4010 - English Language in America
- LING 4020 - Structure of Modern English
- LING 4070 - History of the English Language
- LING 4130 - Language Data Management: Methods and Tools for Analysis and Dissemination
- LING 4140-Computational Linguistics


## Linguistics program

Main Office<br>Discovery Park, Room E<br>Mailing address:<br>1155 Union Circle \#311068<br>Denton, Texas 76203-5017

940-565-4552

E-mail: ci-advising@unt.edu
Web site: linguistics.unt.edu

## Patricia Cukor-Avila, Director

The linguistics program offers a BA with a major in linguistics and a BA with a minor in information science.

The Bachelor of Arts with a major in linguistics offers students a comprehensive overview of the history of the field and a strong foundation in the core areas of phonetics, phonology, morphology, syntax and semantics. A major goal of the BA program is to stimulate student curiosity about language and cultural diversity. Of general interest to our students, but of special interest to those interested in teaching English as a second
language, are courses on English grammar and the history of English. Courses are also offered on theories of second language acquisition and English language variation and change.

The BA with a major in linguistics provides students opportunities for working with data with an eye to discovering predictable linguistic patterns (linguistic problem solving). Students learn how to read, write, and present syntheses of relevant published work and to arrive at their own original theoretical formulations. The Scientific Methods course and the Capstone course train students in original research, which includes evaluating and reporting on existing findings using appropriate citation methods and creating and reporting on original experiments and arguments. CNN lists linguistics as the second most overlooked job possibility for new graduates. A degree in linguistics makes students competitive for jobs in fields such as:

- language education
- $\quad$ speech - language pathology and audiology
- law - forensic linguistics
- advertising
- marketing
- codes and code-breaking

Because linguistics provides students with the skills to analyze language, companies like Microsoft, Google and Apple are also eager to hire students with linguistics degrees. Read more on the Linguistic Society of America web site (www.linguisticsociety.org).

The strengths of the linguistics program lie in our established TESOL program and research areas in language variation and change, language documentation, and the linguistic analysis of literature. Since moving to the College of Information in Fall 2014, we have added a new research focus in language technology and language data curation. Our international collaborations currently are with Mexico, India, Pakistan and China. Our overall goal is to contribute to the global understanding of the nature of language, and to provide students ample opportunities to conduct and disseminate original research. We strongly encourage and support student participation at conferences and public speaking venues.

## Academic advising

Advising on courses, programs, and related questions is available through the college advising office, Discovery Park, Room C232; 940-5652445; ci-advising@unt.edu. All students should have an approved degree plan audit on file as early as possible, but not later than the beginning of the final 60 hours of courses. Calls and visits by prospective students are welcomed from 8 a.m. to 5 p.m., Monday through Friday.

# Department of Learning Technologies 

Main Office<br>Discovery Park, Room G150<br>Mailing address:<br>3940 N. Elm Street<br>Denton, TX 76203-0530<br>940-565-2057<br>Fax: 940-565-4194<br>Web site: www.lt.unt.edu

## Cathleen Norris, Interim Chair

## Faculty

Learning technologies continue to change the face of education and training internationally, nationally, regionally and statewide. The degree programs of 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 solving educational problems.

## Academic advising

Advising on courses, programs and related questions is available through the college advising office, Discovery Park, Room C232; 940-5652445; 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 also are welcomed from 8 a.m. to 5 p.m. Monday through Friday.

## Applied technology and performance improvement

The undergraduate program of study prepares students for careers in education, business, industry and government and leads to a Bachelor of Applied Arts and Sciences with a major in applied technology and performance improvement.

Students may select programs of study in one of three career tracks: learning technology, computer technology or performance technology.
Students planning teaching careers in career and technical education may complete the program of study for the Bachelor of Applied Arts and Sciences with an emphasis in one of three certification areas. The three career and technical education certification programs are Health Science Education, Marketing Education, and Trade and Industrial Education.

To fulfill the certification requirements, students must complete the required number of courses for the certificate, the number of hours of work experience required for the certificate, pass the reading and writing portions of the THEA (with scores of 230 and 220, respectively), and teach at least one year on a probationary teaching certificate in an approved career and technical education program at the secondary school level (grades 8-12).

Students who plan to obtain teacher certification in any of the career and technical education certification programs should contact a faculty advisor in the department before taking any course work to ensure that they have the necessary qualifications to complete the career and technical education teacher certification program and to complete the required statement of qualifications form.

Students planning careers in business, industry, education and government in computer technology or performance technology may complete the program of study for the Bachelor of Applied Arts and Sciences with one of numerous areas of emphasis. The area of emphasis is chosen in consultation with an academic advisor.

The BAAS is appropriate for students who desire to complete a baccalaureate degree after completing an occupational specialization program in a community college or four-year institution. The BAAS provides an interdisciplinary undergraduate degree for students who were enrolled in or who have graduated from an applied technology program.

## 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

## Applied Technology and Performance Improvement, BAAS

A BAAS with a major in applied technology and performance improvement provides a direct path to a four-year bachelor's degree if you have completed course work for technical, applied or military credit or a technical or applied degree from a community college or technical institution.

## Hours required and general/college requirements

A minimum of 120 semester hours, of which 36 hours 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 Academics section of this catalog and the College of Information requirements.

## Major requirements

## Occupational specialization

36 hours may be completed in an applied technology program at a community college or in occupational training and development courses at the university level. Students should contact an advisor in the applied technology and performance improvement program to determine the 36 semester hours of course work needed to complete the occupational specialization section of the degree audit.

## Professional development

42 semester hours of courses, of which 36 hours must be at the 3000 - and 4000 -level, from within the professional development section of the degree audit (to be determined in consultation with an advisor), which must include the following 27 semester hours:

- LTEC 3010 - Personal Development
- LTEC 4000 - Principles of Training and Development
- LTEC 4060 - Project Management and Applied Technology Performance Improvement
- LTEC 4070 - Principles of Leadership, Empowerment and Team Building
- LTEC 4121 - Technical Presentation Skills
- LTEC 4160 - Advanced Computer Applications in Education and Training
- LTEC 4470 - Human Relations in Business, Education and Industry
- LTEC 4510 - Communications in Business, Education and Industry
- LTEC 4741 - Applied Technology and Performance Improvement Capstone

Minor

A minor is not required for this degree.

## Other course requirements

None.

## Electives

9 semester hours of 3000- and 4000-level courses and 6 hours of 1000-4000-level courses selected in consultation with an academic advisor.

## Other requirements

A minimum overall GPA (all UNT and transferred courses) of 2.0 is required for graduation.

## Note

## Grad Track Options

## Applied Technology and Performance Improvement, BAAS with grad track option leading to Learning Technologies, MS

The Department of Learning Technologies offers a grad track pathway for existing UNT undergraduate students with a major in applied technology and performance improvement. In this grad track pathway, students can take a maximum of nine (9) credit hours of graduate courses while completing the BAAS degree. These credits count first toward the BAAS, then are transferred to the MS degree. Prior to registering for the specified graduate courses, the student must have been admitted to the grad track pathway and obtained approvals from the appropriate undergraduate and graduate advisors.

## Admissions criteria and program policies

1. Students should be a major in the UNT applied technology and performance improvement BAAS program.
2. A student may apply for the grad track pathway during his/her junior year (and must have completed at least 75 credit hours at the time of application to the grad track).
3. Minimum of 3.0 cumulative GPA required at the time of application submission.
4. The student will provide two recommendation forms from LTEC faculty members who can evaluate the student's ability to complete graduate level work.
5. The application will be reviewed by both the LTEC undergraduate and graduate advisors.
6. Once approved by the LTEC advisors, the student must apply to Toulouse Graduate School within the first semester of the senior year.
7. After completing at least 90 credit hours, the student can start taking the graduate courses to satisfy a portion of an Area of Emphasis (Support Courses) as part of the Professional Development component for the BAAS degree requirement.
8. Students admitted to the grad track pathway will be admitted into the MS program on a conditional basis. Once the student has satisfied all course work for the BAAS degree and maintained a 3.0 or higher GPA on the specified graduate courses, he/she will be fully admitted to the MS program.
9. 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.
10. The student must enroll in graduate school in the next long semester after finishing his/her BAAS 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 BAAS degree, those graduate course credit hours taken as part of the grad track pathway will not be applied to the MS degree even if the student comes back for graduate school in the future.

## Program requirements

- LTEC 5420 - Web Authoring (replaces LTEC 3260)
- LTEC 5260 - Computer Graphics for Mediated Communications (replaces LTEC 3220 or LTEC 3000/4000 elective)
- LTEC 5111 - Introduction to Video Technology (replaces LTEC 4210)
- all other requirements for the Applied Technology and Performance Improvement, BAAS


## Minors

## Computer Education minor

A minor in computer education requires 18 semester hours.

## Required courses, 9 hours

- LTEC 2100 - Surviving the Information Age
- LTEC 3220 - Computer Graphics in Education and Training
- LTEC 3260-Web Authoring


## Additional requirements

- The remaining 9 hours must be advanced LTEC courses at the 3000 or 4000 level.


## Department of Library and Information Sciences

Main Office<br>Discovery Park, Room E292<br>Mailing address:<br>1155 Union Circle \#311068<br>Denton, TX 76203-5017<br>940-565-2445 or 877-ASK-SLIS<br>Fax: 940-565-3101<br>TDD access: 800-735-2989<br>E-mail: ci-advising@unt.edu<br>Web site: lis.unt.edu/BSIS<br>\section*{Suliman Hawamdeh, 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. Instructions are offered in a variety of formats, including face-to-face, online and blended, that allows you to balance classes with fulltime or part-time employment.

## Academic advising

Advising on courses, programs and related questions is available through the department office, Discovery Park, Room C232; 940-565-2445; ciadvising@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 department 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

## 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: lis.unt.edu/lisscholarships.

## Majors

## Information Science with a concentration in Digital Content and Information Systems, BS

The Bachelor of Science with a major in information science is a flexible program offering a wide range of minors, including technological fields, making you more marketable. Minors chosen by students in this program often become an area of specialization for graduate study.

The bachelor's degree program requires a major in the Department of Library and Information Sciences. 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, students must have the following:

- at least sophomore standing
- a cumulative grade point average of at least 2.5.


## Degree requirements

Candidates for the Bachelor of Science with a major in information science must meet the following requirements:

## Hours required and general university requirements

A minimum of 120 semester hours, of which 42 must be advanced. See "University Core Curriculum" in the Academics section of this catalog.

## Major requirements

Major of at least 33 hours including 18 hours of required courses in the concentration, and at least 15 additional hours selected with the approval of the department.

## Concentration in digital content and information systems

- INFO 4206 - Information Retrieval Systems
- INFO 4710 - Information Technology Management
- INFO 4730 - Digital Curation and Preservation
- INFO 4745-Information Architecture
- INFO 4910-Special Problems
- INFO 4970 - Information Science Seminar


## 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.

## Other requirements

A minimum grade point average of 2.5 is required on all courses counted toward the major.

## Information Science with a concentration in Information Management and Health Informatics, BS

The Bachelor of Science with a major in information science is a flexible program offering a wide range of minors, including technological fields, making you more marketable. Minors chosen by students in this program often become an area of specialization for graduate study.

The bachelor's degree program requires a major in the Department of Library and Information Sciences. 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, students must have the following:

- at least sophomore standing
- a cumulative grade point average of at least 2.5.


## Degree requirements

Candidates for the Bachelor of Science with a major in information science must meet the following requirements:

## Hours required and general university requirements

A minimum of 120 semester hours, of which 42 must be advanced. See "University Core Curriculum" in the Academics section of this catalog.

## Major requirements

Major of at least 33 hours including 18 hours of required courses in the concentration, and at least 15 additional hours selected with the approval of the department.

## Concentration in information management and health informatics

- 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


## 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.

## Other requirements

A minimum grade point average of 2.5 is required on all courses counted toward the major.

The Bachelor of Science with a major in information science is a flexible program offering a wide range of minors, including technological fields, making you more marketable. Minors chosen by students in this program often become an area of specialization for graduate study.

The bachelor's degree program requires a major in the Department of Library and Information Sciences. 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, students must have the following:

- at least sophomore standing
- a cumulative grade point average of at least 2.5.


## Degree requirements

Candidates for the Bachelor of Science with a major in information science must meet the following requirements:

## Hours required and general university requirements

A minimum of 120 semester hours, of which 42 must be advanced. See "University Core Curriculum" in the Academics section of this catalog.

## Major requirements

Major of at least 33 hours including 18 hours of required courses in the concentration, and at least 15 additional hours selected with the approval of the department.

## Concentration in information science and knowledge organization

- INFO 4203 - Information Indexing and Organization
- INFO 4206 - Information Retrieval Systems
- INFO 4223 - Introduction to Metadata for Information Organization
- INFO 4710 - Information Technology Management
- INFO 4910-Special Problems
- INFO 4970 - Information Science Seminar


## 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.

## Other requirements

A minimum grade point average of 2.5 is required on all courses counted toward the major.

## Information Science with a concentration in Project and Knowledge Management, BS

The Bachelor of Science with a major in information science is a flexible program offering a wide range of minors, including technological fields, making you more marketable. Minors chosen by students in this program often become an area of specialization for graduate study.

The bachelor's degree program requires a major in the Department of Library and Information Sciences. 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, students must have the following:

- at least sophomore standing
- a cumulative grade point average of at least 2.5.


## Degree requirements

Candidates for the Bachelor of Science with a major in information science must meet the following requirements:

## Hours required and general university requirements

A minimum of 120 semester hours, of which 42 must be advanced. See "University Core Curriculum" in the Academics section of this catalog.

## Major requirements

Major of at least 33 hours including 18 hours of required courses in the concentration, and at least 15 additional hours selected with the approval of the department.

## Concentration in project and knowledge management

- INFO 4230 - Records Management Operations
- INFO 4306 - Project Management for Information Systems
- INFO 4307 - Knowledge Management Tools and Technologies
- INFO 4710 - Information Technology Management
- INFO 4910-Special Problems
- INFO 4970 - Information Science Seminar


## 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.

## Other requirements

A minimum grade point average of 2.5 is required on all courses counted toward the major.

## Grad Track Options

Information Science, BS with grad track option leading to Information Science, MS

The Department of Library and Information Sciences 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 degree. These credits will be counted toward first the bachelor's degree and then the master's.

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

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 BSIS (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 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 course 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 - Records Management (replaces INFO 4230 - Records Management Operations)
- 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 5814 - Web Content Development and Maintenance (replaces an INFO 3000/4000 elective)
- INFO 5305 - Systems Analysis and Design (replaces an INFO 3000/4000 elective)
- INFO 5707 - Data Modeling for Information Professionals (replaces an INFO 3000/4000 elective)


## Information Science, BS with grad track option leading to Library Science, MS

The Department of Library and Information Sciences 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 MS.

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

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 BSIS (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 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 course 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 - 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 - Information Resources Development (replaces INFO 4400 - Evaluation and Development of Information Resources)
INFO 5615 - Electronic Databases and Information Services ( INFO 4615 - Electronic Information Services)

## Minors

## Digital Content and Information Systems minor

A minor in digital content and information systems 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 4710 - Information Technology Management
- INFO 4730 - Digital Curation and Preservation
- INFO 4745 - Information Architecture
- INFO 4910 - Special Problems
- INFO 4970-Information Science Seminar


## 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 4203 - Information Indexing and Organization
- INFO 4206 - Information Retrieval Systems
- INFO 4223 - Introduction to Metadata for Information Organization
- INFO 4710 - Information Technology Management
- INFO 4910 - Special Problems
- INFO 4970 - Information Science Seminar


## Project and Knowledge Management minor

A minor in project and knowledge management 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 4230 - Records Management Operations
- INFO 4306 - Project Management for Information Systems
- INFO 4307 - Knowledge Management Tools and Technologies
- INFO 4710 - Information Technology Management
- INFO 4910-Special Problems
- INFO 4970 - Information Science Seminar


## Other Programs

Rural library management certificate

## Required courses, 12 hours

Students who are interested in earning an undergraduate academic certificate in rural library management must take the following four courses (12 hours):

- INFO 4325 - Advanced Topics in Rural Libraries
- INFO 4350-Library Partnership and Community Outreach
- INFO 4615 - Electronic Information Services
- INFO 4750 - Managing Automation Projects


## Note:

These four courses must be successfully completed within a four-year time frame.
All students pursuing an undergraduate academic certificate must meet regular UNT admission requirements. Candidates for admission to the undergraduate academic certificate program must meet the minimum academic standards for the academic discipline. Post-baccalaureate students are eligible to pursue an undergraduate academic certificate.

# Frank W. and Sue Mayborn School of Journalism 

Main Office<br>General Academic Building, Room 102<br>Mailing address:<br>1155 Union Circle \#311460<br>Denton, TX 76203-5017<br>940-565-2205<br>Fax: 940-565-2370<br>Office of Student Advising<br>General Academic Building, Room 107<br>940-565-3365<br>Web sites: www.journalism.unt.edu<br>\section*{Dorothy Bland, Dean}<br>Cory Armstrong, Director<br>\section*{Faculty}

A career in journalism is exciting, dynamic and critical to the future of an informed and enlightened American society. The Mayborn School of Journalism provides students with the creative and critical-thinking skills to prepare them to work in the following fields:

- news and sports reporting, writing, visual journalism (stills and video), design, and publishing for the Internet, newspapers, broadcast, magazines, books;
- advertising in agencies, profit and non-profit organizations, and media;
- public relations in agencies, corporations, government, and non-profit organizations;
- web and desktop publishing; and
- teaching in secondary schools.

The curriculum prepares students with broad and diverse 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 computers, software and video equipment. The school emphasizes curriculum and career advising and mentoring by professionally trained faculty and staff.

The Mayborn School of Journalism comprises five concentrations: advertising, broadcast and digital journalism, digital and print journalism, photojournalism, and public relations.

The journalism major with a broadcast and digital, print and digital, or photojournalism concentration prepares students for careers in reporting, writing, editing and photojournalism (video and stills) for the Internet, television, newspapers, magazines and radio. With a strong focus on multiplatform journalism, students receive hands-on opportunities as news reporters, sports reporters, writers, photojournalists, designers, and editors for online, on air and in print for the North Texas Daily, NTDaily.com, NTDaily TV, Denton Live, Hatch 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 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 advertising, public relations and integrated communication careers in a variety of settings: ad/PR/marketing agencies, corporations, non-profit agencies, government, public affairs and more. Students gain critical thinking skills, creative practice and professional experience by studying cases, developing campaigns and completing internships. To help real-world clients such as non-profit organizations, 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 gain experience through SWOOP, the student-managed advertising and public relations agency.

## 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, StaufferFlint Hall 1435 Jayhawk Blvd., Lawrence, KS 66045; telephone 785-864-3973; or visit www2.ku.edu/~acejmc/FULLINFO.HTML.)

## 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 the pre-major requirements, typically by the end of the sophomore year. 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, GAB 107.

## Programs of study

The program is divided into five concentrations: advertising, broadcast and digital journalism, digital and print journalism, photojournalism, and public relations.

## 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 "University Core Curriculum Requirements" in the Academics section of this catalog.
3. Life and Physical Sciences (6 hours): See "University Core Curriculum Requirements" 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 MKTG 3650.

## 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 newspapers, magazines, book publishing companies, television and radio stations, web companies, advertising and 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 in July. For more information, go to journalism.unt.edu/maybornconference.

## North Texas Daily

The award-winning North Texas Daily, UNT's student newspaper in print and online, provides practical experience for students in both departments of 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 four days 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 studentproduced 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.

## Majors

## Journalism with a concentration in Advertising, BA

A concentration in advertising from the Mayborn School of Journalism emphasizes advertising. You will graduate with competitive visual creative skills 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

 specified in the "General University Requirements" in the Academics section of this catalog and the Mayborn School of Journalism requirements.
## Major requirements

46 semester hours in journalism in advertising, public relations, digital and print journalism, broadcast and digital journalism, or photojournalism. Students may take no more than 48 hours in 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 2000 - Principles of Advertising and Public Relations
- JOUR 2310 - Introduction to Media Writing

2. The journalism math requirement for all concentrations:

- MATH 1680 - Elementary Probability and Statistics

3. The university English composition requirement with a grade of $C$ or better.
4. Students must pass the grammar, spelling and punctuation (GSP) exam to be permitted to enroll in JOUR 2310. Students who transfer credit for JOUR 2310 must take the grammar, spelling and punctuation (GSP) exam during their first term/semester at UNT.

## Advertising concentration

46 semester hours in journalism.

## Foundation courses, 9 hours

- JOUR 1210 - Mass Communication and Society
- JOUR 2000 - Principles of Advertising and Public Relations
- JOUR 2310 - Introduction to Media Writing


## Upper-level course requirements

Writing course, 3 hours

- JOUR 3050-Advertising Creative

Visual communication courses, 6 hours

- JOUR 3055 - Visual Strategy
- JOUR 3210 - Applied Design for Advertising and Public Relations

Critical thinking course, 3 hours

- JOUR 3020 - Advertising Account Planning

Audience analysis course, 3 hours

- JOUR 3040-Advertising Media Strategy

Campaigns course, 3 hours

- JOUR 4070 - Advertising Campaigns

Professional application courses, 6 hours

- JOUR 3070 - Advertising Agency Management

And 3 hours selected from

- JOUR 3410 - Public Relations for Non-Profits
- JOUR 4012 - Direct and Interactive Response
- JOUR 4020 - Advertising Industry in New York
- JOUR 4051 - Advertising Creative 2
- JOUR 4052 - Advertising Portfolio
- JOUR 4270 - Strategic Social Media

Internship/practicum, 1 hour

Selected from:

- JOUR 4800 - Professional Internship
- JOUR 4805 - Advertising and Public Relations Practicum


## Capstone course, 3 hours

- JOUR 4470 - Ethics, Law and Diversity in Advertising and Public Relations


## 9 additional hours

9 additional hours selected from professional application, internship/practicum, or selected from:

- JOUR 2300 - Principles of News
- JOUR 3200 - Mass Communication Research Methods
- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 3400 - Fundamentals of Public Relations Practices
- JOUR 4055 - Broadcast Advertising
- JOUR 4075 - Advertising Campaigns Competition
- JOUR 4210 - Topics in Journalism and Mass Media
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- JOUR 4820 - History of American Media
- $\quad$ Study Abroad (taken as a topic under course number JOUR 4210)


## Other course requirements

- MKTG 3650 - Foundations of Marketing Practice


## Minor

## Business concentration, 18 hours

- MKTG 3010 - Professional Selling
- MKTG 3650 - Foundations of Marketing Practice
- MKTG 4120-Consumer Behavior
- Plus 9 hours of upper-level marketing and/or management classes approved by advertising and public relations


## Or, another 18 hour minor

Must be 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 journalism GPA in order 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.
c. A minimum of 72 semester credit hours must be completed outside of journalism. These 72 semester credit hours may not include MRTS.

## Journalism with a concentration in Broadcast and Digital Journalism, 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 "General University Requirements" in the Academics section of this catalog and the Mayborn School of Journalism requirements.

## Major requirements

46 semester hours in journalism in either advertising, public relations, digital and print journalism, broadcast and digital journalism or photojournalism. Students may take no more than 48 hours in 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 2300 - Principles of News
- JOUR 2310 - Introduction to Media Writing

2. The journalism math requirement for all concentrations:

- MATH 1680 - Elementary Probability and Statistics

3. The university English composition requirement with a grade of C or better.
4. Students must pass the grammar, spelling and punctuation (GSP) exam to be permitted to enroll in JOUR 2310. Students who transfer credit for JOUR 2310 must take the grammar, spelling and punctuation (GSP) exam during their first term/semester at UNT.

## Broadcast and Digital Journalism concentration

46 semester hours in journalism.

## Foundation courses, 9 hours

- JOUR 1210-Mass Communication and Society
- JOUR 2300 - Principles of News
- JOUR 2310 - Introduction to Media Writing


## Writing/reporting/editing, 3 hours

- JOUR 3323 - News Writing for Broadcast and Web


## Advanced writing/reporting/editing, 6 hours

- JOUR 4410 - Reporting of Public Affairs
- JOUR 4323 - Advanced Writing and Reporting for Broadcast and Web


## Visual journalism, 9 hours

- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 3340 - Digital Media for Journalists
- JOUR 4343 - Visual News Storytelling

Critical thinking, 3 hours

Selected from:

- JOUR 4240 - Comparative International Media Systems
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- JOUR 4820 - History of American Media


## 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

Critical thinking, professional application courses from above lists not previously taken, or selected from:

- JOUR 2000 - Principles of Advertising and Public Relations
- JOUR 3210 - Applied Design for Advertising and Public Relations
- JOUR 3310 - Feature Writing
- JOUR 3321 - News Reporting, Writing and Editing
- JOUR 3410 - Public Relations for Non-Profits
- JOUR 3420 - Public Relations Writing
- JOUR 3700 - Photojournalism
- JOUR 4210 - Topics in Journalism and Mass Media
- JOUR 4270 - Strategic Social Media
- JOUR 4310 - Creative Writing
- JOUR 4321 - Opinion Writing
- JOUR 4350 - Sports Journalism
- JOUR 4720 - Multimedia Storytelling for News
- JOUR 4850 - Magazine Production
- Study Abroad (taken as a topic under course number JOUR 4210)

Students may take an additional 2 hours in either the practicum or internship courses.
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 journalism GPA 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.
c. A minimum of 72 semester credit hours must be completed outside of journalism. These 72 semester credit hours may not include MRTS.

## Journalism with a concentration in Digital and Print Journalism, BA

In the Mayborn School of Journalism, you learn to communicate and tell stories relevant to society's needs. The digital and print 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 "General University Requirements" in the Academics section of this catalog and the Mayborn School of Journalism requirements.

## Major requirements

46 semester hours in journalism in advertising, public relations, digital and print journalism, broadcast and digital journalism, or photojournalism. Students may take no more than 48 hours in 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 2300 - Principles of News
- JOUR 2310 - Introduction to Media Writing

2. The journalism math requirement for all concentrations:

- MATH 1680 - Elementary Probability and Statistics

3. The university English composition requirement with a grade of C or better.
4. Students must pass the grammar, spelling and punctuation (GSP) exam to be permitted to enroll in JOUR 2310. Students who transfer credit for JOUR 2310 must take the grammar, spelling and punctuation (GSP) exam during their first term/semester at UNT.

## Digital and print journalism concentration

46 semester hours in journalism.

## Foundation courses, 9 hours

- JOUR 1210 - Mass Communication and Society
- JOUR 2300 - Principles of News
- JOUR 2310 - Introduction to Media Writing


## Writing/reporting/editing, 3 hours

- JOUR 3321 - News Reporting, Writing and Editing

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 4310 - Creative 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 - Photojournalism
- JOUR 4720 - Multimedia Storytelling for News
- JOUR 4850 - Magazine Production

Critical thinking course, 3 hours

Selected from:

- JOUR 4240 - Comparative International Media Systems
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- JOUR 4820 - History of American Media


## 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 selected from advanced writing/reporting/editing, critical thinking, visual journalism or professional application courses listed above or selected from:

- JOUR 2000 - Principles of Advertising and Public Relations
- JOUR 3210 - Applied Design for Advertising and Public Relations
- JOUR 3323 - News Writing for Broadcast and Web
- JOUR 3410 - Public Relations for Non-Profits
- JOUR 3420 - Public Relations Writing
- JOUR 4210 - Topics in Journalism and Mass Media
- JOUR 4270 - Strategic Social Media
- JOUR 4323 - Advanced Writing and Reporting for Broadcast and Web
- JOUR 4343 - Visual News Storytelling
- Study Abroad (taken as a topic under course number JOUR 4210)


## 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 journalism GPA in order 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.
c. A minimum of 72 semester credit hours must be completed outside of journalism. These 72 semester credit hours may not include MRTS.

## 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 "General University Requirements" in the Academics section of this catalog and the Mayborn School of Journalism requirements.

## Major requirements

46 semester hours in journalism in either advertising, public relations, digital and print journalism, broadcast and digital journalism, or photojournalism. Students may take no more than 48 hours in journalism. Check catalog for prerequisites before enrolling in any course.

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 2300 - Principles of News
- JOUR 2310 - Introduction to Media Writing

2. The journalism math requirement for all concentrations:

- MATH 1680 - Elementary Probability and Statistics

3. The university English composition requirement with a grade of C or better.
4. Students must pass the grammar, spelling and punctuation (GSP) exam to be permitted to enroll in JOUR 2310. Students who transfer credit for JOUR 2310 must take the grammar, spelling and punctuation (GSP) exam their first term/semester at UNT.

## Photojournalism concentration

46 semester hours in journalism.

## Foundation courses, 9 hours

- JOUR 1210 - Mass Communication and Society
- JOUR 2300 - Principles of News
- JOUR 2310 - Introduction to Media Writing


## Writing/reporting/editing, 3 hours

Selected from:

- JOUR 3321 - News Reporting, Writing and Editing
- JOUR 3323 - News Writing for Broadcast and Web


## Advanced writing/reporting/editing, 6 hours

- JOUR 4410-Reporting of Public Affairs


## And 3 hours selected from

- JOUR 3310 - Feature Writing
- JOUR 4310 - Creative Writing
- JOUR 4321 - Opinion Writing
- JOUR 4350 - Sports Journalism


## Visual journalism, 9 hours

- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 3700 - Photojournalism
- JOUR 4720 - Multimedia Storytelling for News


## Critical thinking, 3 hours

Selected from:

- JOUR 4240 - Comparative International Media Systems
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- JOUR 4820 - History of American Media


## 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 selected from advanced writing/reporting/editing, critical thinking, or professional application courses listed above, or selected from:

- JOUR 2000 - Principles of Advertising and Public Relations
- JOUR 3210 - Applied Design for Advertising and Public Relations
- JOUR 3323 - News Writing for Broadcast and Web
- JOUR 3340 - Digital Media for Journalists
- JOUR 3410 - Public Relations for Non-Profits
- JOUR 3420 - Public Relations Writing
- JOUR 4210 - Topics in Journalism and Mass Media
- JOUR 4270 - Strategic Social Media
- JOUR 4323 - Advanced Writing and Reporting for Broadcast and Web
- JOUR 4343 - Visual News Storytelling
- JOUR 4730 - Advanced Visual Communication
- JOUR 4850 - Magazine Production
- $\quad$ Study Abroad (taken as a topic under course number JOUR 4210)


## 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 journalism GPA 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 of 18 transfer journalism hours will be accepted for credit toward the bachelor's degree.
c. A minimum of 72 semester credit hours must be completed outside of journalism. These 72 semester credit hours may not include MRTS.

## 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 "General University Requirements" in the Academics section of this catalog and the Mayborn School of Journalism.

## Major requirements

46 semester hours in journalism in either advertising, public relations, digital and print journalism, broadcast and digital journalism, or photojournalism. Students may take no more than 48 hours in journalism. 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 2000 - Principles of Advertising and Public Relations
- JOUR 2310 - Introduction to Media Writing

2. The journalism math requirement for all concentrations:

- MATH 1680 - Elementary Probability and Statistics

3. The university English composition requirement with a grade of C or better.
4. Students must pass the grammar, spelling and punctuation (GSP) exam to be permitted to enroll in JOUR 2310. Students who transfer credit for JOUR 2310 must take the grammar, spelling and punctuation (GSP) exam during their first term/semester at UNT.

## Public Relations concentration

46 semester hours in journalism.

## Foundation courses, 9 hours

- JOUR 1210 - Mass Communication and Society
- JOUR 2000 - Principles of Advertising and Public Relations
- JOUR 2310 - Introduction to Media Writing


## Upper-level course requirements

Writing, 6 hours

- JOUR 3321 - News Reporting, Writing and Editing
- JOUR 3420 - Public Relations Writing

Visual communication, 3 hours

- JOUR 3210 - Applied Design for Advertising and Public Relations

Critical thinking, 3 hours

- JOUR 3400 - Fundamentals of Public Relations Practices

Audience analysis, 3 hours

- JOUR 3200 - Mass Communication Research Methods

Campaigns, 3 hours

- JOUR 4460 - Public Relations Communication

Professional application, 6 hours

- JOUR 4270 - Strategic Social Media

And 3 hours selected from

- JOUR 3410 - Public Relations for Non-Profits
- JOUR 4850 - Magazine Production

Internship/practicum, 1 hour

- JOUR 4800 - Professional Internship
- JOUR 4805 - Advertising and Public Relations Practicum


## Capstone, 3 hours

- JOUR 4470 - Ethics, Law and Diversity in Advertising and Public Relations


## 9 additional hours

9 additional hours selected from professional application, internship/practicum or selected from:

- JOUR 2300 - Principles of News
- JOUR 3040 - Advertising Media Strategy
- JOUR 3070 - Advertising Agency Management
- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 4210 - Topics in Journalism and Mass Media
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- JOUR 4350 - Sports Journalism
- JOUR 4440 - Public Relations Case Studies
- JOUR 4820 - History of American Media
- $\quad$ Study Abroad (taken as a topic under course number JOUR 4210)


## Other course requirements

- MKTG 3650 - Foundations of Marketing Practice


## Minor

## Business concentration, 18 hours

- MKTG 3010 - Professional Selling
- MKTG 3650 - Foundations of Marketing Practice
- MKTG 4120 - Consumer Behavior
- Plus 9 hours of approved upper-level marketing and/or management classes (see Office of Student Advising).


## Or, another 18 hour minor

Must be 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 journalism GPA 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.
c. A minimum of 72 semester credit hours must be completed outside of journalism. Those 72 semester credit hours may not include MRTS.

## Minors

## 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 one entry-level course plus 5 other courses. Depending on the electives chosen, a student could select a general journalism minor or one with a focus in strategic communications or news. (See the 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.

The grammar, spelling and punctuation exam (GSP) is required for a minor in news and for all courses that have the GSP exam listed as a prerequisite.

Prerequisites for upper-level classes must be completed.

## Secondary Teacher Certification

## Journalism teacher certification

The 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 GAB, Room 107, 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

## Newswriting-editorial required courses:

- JOUR 1210 - Mass Communication and Society
- JOUR 2300 - Principles of News
- JOUR 2310 - Introduction to Media Writing
- JOUR 3210 - Applied Design for Advertising and Public Relations
- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 3321 - News Reporting, Writing and Editing
- 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


## Note

See the concentration in news for GPA requirements.

## Professional education requirements, 21 hours

And 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 106.

All state certification requirements and information on required examinations is available on the web site of the State Board for Education Certification (SBEC), www.tea.state.tx.us.

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4108-Student Teaching in the Secondary School
- EDSE 4118 - Student Teaching in the Secondary School
- EDSE 4840 - Instructional Strategies and Classroom Management


## Undergraduate Academic Certificates

## Sports Media certificate

The 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. Students must have a minimum of 3.0 UNT GPA to apply for this certificate program and 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, Writing and Editing
- JOUR 3323 - News Writing for Broadcast and Web


## 3 hours

## Selected from:

- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 3400 - Fundamentals of Public Relations Practices


## 6 hours from

- JOUR 4350 - Sports Journalism
- SOCI 2050 - Sociology of Sport


## 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


## Requirements

## 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 MKTG 3650.

## 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.

# College of Merchandising, Hospitality and Tourism 

Main Office<br>Chilton Hall, Room 331<br>Mailing address:<br>1155 Union Circle \#311100<br>Denton, TX 76203-5017<br>940-565-2436<br>Fax: 940-565-4348<br>Web site: cmht.unt.edu<br>\section*{Judith C. Forney, Dean}

Dee K. Knight, Associate Dean

The mission of the College of Merchandising, Hospitality and Tourism 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

Information regarding academic matters is available in the office of the CMHT dean. Advising for entering freshmen and transfer students is available from academic advisors in the College of Merchandising, Hospitality and Tourism. 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 College of Merchandising, Hospitality and Tourism offers the Bachelor of Science degree with majors in digital retailing, home furnishings merchandising, hospitality management, merchandising, and retailing. The school 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 College of Merchandising, Hospitality and Tourism 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, Digital Retailing and Hospitality Management programs, a grade of C or above must be earned in each College of Merchandising, Hospitality and Tourism course completed in residence or transferred to UNT.

## Scholarships

Information about the following scholarships may be obtained by writing to the Associate Dean, College of Merchandising, Hospitality and Tourism, 1155 Union Circle \#311100, Denton, TX 76203-5017.

Completed scholarship applications are due February 1 in the office of the Dean of the College of Merchandising, Hospitality and Tourism. A minimum GPA of 3.0 is required for academic awards, unless otherwise noted. To keep a scholarship, a student must maintain:

- 3.0 GPA each term/semester and 3.0 overall GPA;
- status as a major in the College of Merchandising, Hospitality and Tourism, taking required courses on degree audit and enrolling in at least two College of Merchandising, Hospitality and Tourism classes per term/semester;
- full-time status (i.e., 12 credit hours for undergraduate students and 9 credit hours for graduate students).


## The following scholarships may be awarded to either merchandising and digital retailing or hospitality and tourism management

majors:
Bobye J. Riney- Sophomore
D. Oleana Sifuentes Memorial

Dean Suzanne V. LaBrecque
Ellen L. Flottman- Junior
Florence I. Scoular
Associate Dean Johnny Sue Reynolds
Merchandising and Hospitality Management
R. L. Cartwright Memorial

Woodruff Memorial

The following scholarships are awarded to merchandising and digital retailing majors:

Apparel Group Ltd.
Bette Bunge MacArthur Memorial
Fossil
Furniture Library Association Award
Jack Finger Memorial
JC Penney Company
Merchandising Board of Governors
Murray Munves
Nordstrom
Pier 1 Imports
Shop.org Ray M. Greenley (digital retailing)
Target
Van Wyk
The following scholarships are awarded to hospitality and tourism management majors:

Alicia Hawkins Memorial
Alladin Hussein Memorial
Banfi Vintners
Ben E. Keith
Billie L. Parker
Chancellor's Hotel and Restaurant Management
City Club of Fort Worth
Colin Ridgway Memorial
Don Paul and Esther Smith Memorial
Dr. Lea R. Dopson
Dr. Richard F. Tas
Felcor Lodging Trust Fund
Gaylord Texas Resort and Convention Center
Gregory S. and Barbara Hirsch
Guerra Family Endowment
Hiram Walker Hospitality
Hospitality Management Board of Governors
Hospitality Sales/Mkt. Association
Hyatt Regency Dallas
Jerry W. Dickenson

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Joyce, Milton and Tyler Duesman
J. Willard and Alice S. Marriott Foundation
J.T. Whitaker
J.W. Marriott Hospitality
Kentucky Fried Chicken
Les Dames d'Escoffier
Luby's Inc.
Lucille Murchison
Marriott Hotel and Restaurant Management
National Association of College and University Food Services (NACUFS), Region VII
Network of Executive Women in Hospitality (NEWH)
Phillip J. Romano Scholarship in Hospitality Management
PFS
Roundtable for Women in Foodservice
Ruby Nell McMahan Ruth
Spring Creek Barbeque
Texas Hill Country Wine and Food Festival
T.G.I. Friday's
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## 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).

## Department of Hospitality 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

Young Hoon Kim, Chair

Faculty

## Mission

The mission of the Department of Hospitality and Tourism Management is to educate students for leadership in the global hospitality and tourism industries and to advance the profession through excellence in teaching, research and service.

## 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

## 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.

## Admission to hospitality major

To declare a major in hospitality management, a student must have completed at least 45 hours of college course work, including the courses listed below, have a cumulative UNT GPA of at least 2.5, and have completed at least 100 documented work hours in the hospitality industry. 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, MDSE, HFMD, DRTL and HMGT.

Pre-majors who have completed these requirements and who have a cumulative GPA of at least 2.5 may file a formal application for major status. Approved majors may then enroll in those advanced courses designated "hospitality majors/minors only."

- HMGT 1420-Food Sanitation
- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 2280 - Hospitality Accounting I - Financial
- HMGT 2480 - Hospitality Accounting II - Managerial
- CMHT 2790 - Career Development
- HMGT 2860 - Management Foundations in the Hospitality Industry


## 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 Academics section of this catalog and the College of Merchandising, Hospitality and Tourism requirements

## Major requirements

## CHMT core, 12 hours

- CMHT 2790 - Career Development
- CMHT 3950-Creating Consumer Experiences
- CMHT 4750 - Managing a Diverse Workforce (may be used to satisfy the Capstone requirement of the University Core Curriculum)
- 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, 57 hours

A total of 57 hours including the following courses:

- HMGT 1420 - Food Sanitation
- HMGT 1450 - Principles of Nutrition
- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 2280 - Hospitality Accounting I - Financial
- HMGT 2480 - Hospitality Accounting II - Managerial
- HMGT 2800 - Foundations of International Travel and Tourism
- HMGT 2860 - Management Foundations in the Hospitality Industry
- HMGT 3200 - Hospitality Industry Law
- HMGT 3250 - Restaurant Operations I
- HMGT 3260-Resort and Club Management
- HMGT 3300-Hospitality Industry Marketing and Sales
- HMGT 3600 - Management of Human Resources in the Hospitality Industry
- HMGT 3700 - Hotel Operations
- HMGT 4210 - Hospitality Accounting III - Cost Controls
- HMGT 4250 - Restaurant Operations II
- HMGT 4480 - Hospitality Industry Finance
- HMGT 4600-Information Technology in Hospitality and Tourism
- HMGT 4820 - Facilities Planning, Equipment, Layout and Design
- HMGT 4860 - Hospitality Business Strategies


## Plus 6 hours selected from

- CMHT 4000-Global Discovery in Merchandising and Hospitality Management
- DRTL 3090 - Consumer Engagement in Digital Channels
- HMGT 3240-Special Event Management
- HMGT 3920-Recent Developments in the Hospitality Industry
- HMGT 4300 - Survey of Beverages in the Hospitality Industry
- Other relevant lower- and upper-division courses as approved


## Other course requirements

## English courses must be sequenced as follows:

- ENGL 1310 - College Writing I
- ENGL 1320 - College Writing II or
- TECM 2700-Technical Writing


## Additional Requirements:

Students must complete ECON 1110 (satisfies Social and Behavioral Sciences requirement). HMGT 2460, Nutrition Science, is recommended (satisfies a portion of the Life and Physical Sciences requirement).

## Minor requirements

None.

## Electives

9 hours.

## Other requirements

## GPA requirements

- It is required that students entering the College of Merchandising, Hospitality and Tourism have a minimum grade point average of at least 2.5 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, MDSE, HFMD, DRTL and HMGT.
- Academic requirements for graduation with a BS from the College of Merchandising, Hospitality and Tourism include:
a. A minimum of 2.5 grade point average in the professional field, with minimum grades of C required in all CMHT, MDSE, HFMD, DRTL and HMGT courses.
b. A minimum of 2.0 grade point average in all courses completed at UNT
c. A minimum of 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work.


## Hospitality Management, BS (Family and Consumer Sciences 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. With family and consumer sciences teacher certification, you are prepared to begin your career in teaching.

## Degree requirements

The department offers the Bachelor of Science degree with a major in hospitality management leading to certification in Family and Consumer Sciences (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 Academics section of this catalog and the College of Merchandising, Hospitality and Tourism requirements, plus requirements for teacher certification as outlined by the College of Education.

## Major requirements

64 hours, including:

- EDEC 4243 - Environmental Processes and Assessment
- HDFS 2033 - Parenting in Diverse Families
- HDFS 2313 - Courtship and Marriage
- HDFS 3113 - Infant and Toddler Development
- HDFS 3123-Child Development
- 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
- HFMD 2400 - Introduction to the Furniture Industry
- HMGT 1420 - Food Sanitation
- HMGT 1450 - Principles of Nutrition (may be used to satisfy the Discovery requirement of the University Core Curriculum)
- HMGT 1470 - Introduction to Professional Food Preparation
- HMGT 1500 - Orientation to the Hospitality Industry
- HMGT 2860 - Management Foundations in the Hospitality Industry
- HMGT 3250-Restaurant Operations I
- HMGT 3700 - Hotel Operations
- MDSE 3250 - Product Development II
- MDSE 2650-Textiles for Apparel
- MDSE 3750 - Consumer Studies
- CMHT 4750 - Managing a Diverse Workforce (may be used to satisfy the Capstone requirement of the University Core Curriculum)
- 6 hours (advanced) from hospitality management.


## Other course requirements (3 hours)

- HDFS 1013 - Human Development (may be used to satisfy the Social and Behavioral Sciences requirement of the University Core Curriculum)


## Electives

See major requirements.

## Other 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

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4840 - Instructional Strategies and Classroom Management


## Reading/English/language arts, 3 hours

- EDSE 4060 - Content Area Reading in Secondary Schools


## Internship (student teaching), 6 hours

- EDSE 4108-Student Teaching in the Secondary School
- EDSE 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.

## 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 Academics section of this catalog and the College of Merchandising, Hospitality and Tourism requirements, plus requirements for teacher certification as outlined by the College of Education.

## Hospitality, Nutrition and Food Science

60 hours, including:

- HDFS 4133 - Adolescent Development
- HDFS 4413 - Family Life Education
- HMGT 1420 - Food Sanitation
- HMGT 1450 - Principles of Nutrition (may be used to satisfy the Discovery 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
- HMGT 2860 - Management Foundations in the Hospitality Industry
- HMGT 3250 - Restaurant Operations I
- HMGT 3260 - Resort and Club Management
- HMGT 3700 - Hotel Operations
- CMHT 2790 - Career Development
- HMGT 4210-Hospitality Accounting III - Cost Controls
- HMGT 4250 - Restaurant Operations II
- HMGT 4600-Information Technology in Hospitality and Tourism
- HMGT 4820 - Facilities Planning, Equipment, Layout and Design
- CMHT 4750-Managing a Diverse Workforce (may be used to satisfy the Capstone requirement of the University Core Curriculum)
- CMHT 4790 - Internship in Merchandising and Hospitality Management
- 12 hours of electives


## Other course requirements (3 hours)

- HDFS 1013 - Human Development (may be used to satisfy the Social and Behavioral Sciences requirement of the University Core Curriculum)


## Electives

See major requirements.

## Other 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

- EDSE 3800 - Professional Issues in Teaching
- EDSE 3830-Teaching/Learning Process and Evaluation
- EDSE 4070 - Teaching Diverse Populations
- EDSE 4840 - Instructional Strategies and Classroom Management

Reading/English/language arts, 3 hours

- EDSE 4060 - Content Area Reading in Secondary Schools

Internship (student teaching), 6 hours

- EDSE 4108 - Student Teaching in the Secondary School
- EDSE 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

## 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 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

## Admission requirements

Students seeking admission to the pathways graduate program apply both to the program area and to the graduate school for conditional admission. An applicant must have successfully completed 75 or more credit hours of their bachelor's degree program with an overall GPA of at least 3.25 before applying.

## 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 12 hours from the following courses, which are all 3 credits. A maximum of 6 hours may be taken from courses marked with (*).

- CMHT 5000 - Global Discovery*
- CMHT 5100 - Introduction to Research in Merchandising and Hospitality Management
- CMHT 5350 - Issues and Trends
- CMHT 5600 - Managing Customer Experiences
- CMHT 5830 - Legal Aspects
- HMGT 5200 - Survey of Beverages in the Hospitality Industry*
- HMGT 5210 - Hospitality Cost Controls*
- HMGT 5260 - Hospitality Business Strategies*
- HMGT 5480 - Hospitality Industry Finance*
- HMGT 5580 - Hospitality and Tourism Information Technology Strategies
- HMGT 5630 - Event Management
- HMGT 5820 - Facilities, Planning, Equipment Layout and Design*

For the remainder of the bachelor's degree requirements, please see the Bachelor of Science with a major in hospitality management.

## Minors

## Hospitality Management minor

## Required courses

- HMGT 1420 - Food Sanitation
- HMGT 1450 - Principles of Nutrition (may be used to satisfy the Discovery 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


## Plus two of the following

- HMGT 2480 - Hospitality Accounting II - Managerial
- 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
- CMHT 4750 - Managing a Diverse Workforce (may be used to satisfy the Capstone requirement of the University Core Curriculum)


## Department of Merchandising and Digital Retailing

```
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## 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.

## Majors

## Digital Retailing, BS

Our digital retailing 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 retailing:

## Admission and pre-major requirements

All students entering UNT who wish to pursue the Bachelor of Science with a major in digital retailing enter as pre-majors. Before applying to major status, pre-majors must complete at least 30 hours of college course work, including the following:

## Pre-major requirements

Minimum grade of C required in each course.

- DRTL 2090 - Introduction to Digital Retailing
- MDSE 2350 - Product Development I
or
- HFMD 2655 - Textiles for Home Furnishings
or
- HMGT 2800 - Foundations of International Travel and Tourism
- JOUR 2000 - Principles of Advertising and Public Relations
- DSCI 2710 - Data Analysis with Spreadsheets
- Completion of the first course of the Composition requirement of the University Core Curriculum
- UNT GPA of 2.5 or higher


## 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 Academics section of this catalog and the College of Merchandising, Hospitality and Tourism requirements.

## Major requirements

CMHT core, 12 hours including:

- CMHT 2790 - Career Development
- CMHT 3950-Creating Consumer Experiences
- CMHT 4750 - Managing a Diverse Workforce
- CMHT 4790-Internship in Merchandising and Hospitality Management


## Digital retailing

A total of 45 hours including the following courses:

- DRTL 2080 - Digital Authoring and Publishing Tools
- DRTL 2090 - Introduction to Digital Retailing
- DRTL 3090 - Consumer Engagement in Digital Channels
- DRTL 3190 - Digital Retailing Strategies
- DRTL 4070 - Digital Retail Analytics
- DRTL 4090 - Virtual Merchandising
- MDSE 2750 - Consumers in a Global Market
- MDSE 3510 - Profit-Centered Merchandising
- MDSE 3750-Consumer Studies
- MDSE 4010 - Global Sourcing
- MDSE 4660 - Advanced Application

One of the following pairs of classes, 6 hours

- MDSE 2350 - Product Development I and
- MDSE 2650 - Textiles for Apparel
- HFMD 2655 - Textiles for Home Furnishings and
- HFMD 3570-Decorative Accessories Merchandising
- HMGT 2800 - Foundations of International Travel and Tourism or
- HMGT 2810 - Introduction to International Sustainable Tourism and
- HMGT 3300-Hospitality Industry Marketing and Sales


## Plus 6 hours selected from

- CMHT 4000-Global Discovery in Merchandising and Hospitality Management
- CMHT 4800 - Discovery: Research in Merchandising and Hospitality Management
- HFMD 2400 - Introduction to the Furniture Industry
- HMGT 3920 - Recent Developments in the Hospitality Industry
- MDSE 3250 - Product Development II
- MDSE 4001 - New York Study Tour for Merchandising and Digital Retailing
- MDSE 4002 - Dallas Study Tour for Merchandising and Digital Retailing
- MDSE 4003 - Global Discovery: Hong Kong/China
- MDSE 4020 - E-Passport: Virtual Study Abroad
- MDSE 4080 - Merchandising Ventures
- MDSE 4510 - Advanced Buying, Planning and Allocation
- MDSE 4560 - Sustainable Strategies in Merchandising
- RETL 3950 - Visual Merchandising and Promotion
- RETL 4850 - Brand Development


## Other course requirements

## Journalism, 6 hours

- JOUR 2000 - Principles of Advertising and Public Relations
- JOUR 3040 - Advertising Media Strategy
or
- JOUR 4012 - Direct and Interactive Response


## Business, 15 hours

- ACCT 2010-Accounting Principles I (Financial Accounting)
- DSCI 2710 - Data Analysis with Spreadsheets
- LSCM 3960 - Logistics and Supply Chain Management
- MKTG 3650 - Foundations of Marketing Practice
- MKTG 3720 - Internet Marketing Concepts and Strategy


## Minor

None required.

## Electives

9 hours.

## GPA requirements

- It is required that students entering the College of Merchandising, Hospitality and Tourism have a minimum grade point average of at least 2.5 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, MDSE, HFMD, DRTL, RETL and HMGT.
- Academic requirements for graduation with a BS from the College of Merchandising, Hospitality and Tourism include:

1. a minimum of 2.5 grade point average in the professional field, with minimum grades of C required in all CMHT, MDSE, HFMD, DRTL, RETL and HMGT 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.

## Home Furnishings Merchandising, BS

The Bachelor of Science with a major in home furnishings merchandising teaches you how to apply merchandising strategies in a consumer-driven global market and to understand the growing industry phenomenon of brand extension across apparel and home furnishings products.

## Program requirements

## Admission and pre-major requirements

All students entering UNT who wish to pursue the Bachelor of Science with a major in home furnishings merchandising enter as pre-majors. Before applying to major status, pre-majors must complete at least 30 hours of college course work, including the following:

## Pre-major requirements

- HFMD 2380 - Aesthetics and Environment
- HFMD 2400 - Introduction to the Furniture Industry
- HFMD 2655 - Textiles for Home Furnishings
- MATH 1680 - Elementary Probability and Statistics
- Complete the first course of the Composition requirement of the University Core Curriculum
- UNT GPA of 2.5 or higher


## 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 Academics section of this catalog and the College of Merchandising, Hospitality and Tourism requirements.

## Major requirements

## CMHT core, 12 hours

- CMHT 2790 - Career Development
- CMHT 3950-Creating Consumer Experiences
- CMHT 4750 - Managing a Diverse Workforce
- CMHT 4790 - Internship in Merchandising and Hospitality Management


## Home furnishings merchandising

A total of 48 hours including the following courses:

- HFMD 2380 - Aesthetics and Environment
- HFMD 2400 - Introduction to the Furniture Industry
- HFMD 2655-Textiles for Home Furnishings
- HFMD 3355 - Historic and Contemporary Styles of Home Furnishings
- HFMD 3405 - Drawing and Planning for Home Furnishings
- HFMD 3410 - CAD for Home Furnishings
- HFMD 3570-Decorative Accessories Merchandising
- HFMD 4400 - Estimating for Home Furnishings
- MDSE 2750 - Consumers in a Global Market
- MDSE 3510 - Profit-Centered Merchandising
- MDSE 4010 - Global Sourcing
- MDSE 4660 - Advanced Application
- MDSE 4510 - Advanced Buying, Planning and Allocation or
- RETL 4850 - Brand Development


## Plus 9 hours selected from

- CMHT 4000-Global Discovery in Merchandising and Hospitality Management
- CMHT 4800 - Discovery: Research in Merchandising and Hospitality Management
- DRTL 2080 - Digital Authoring and Publishing Tools
- DRTL 2090 - Introduction to Digital Retailing
- DRTL 3090 - Consumer Engagement in Digital Channels
- MDSE 2350 - Product Development I
- MDSE 3650 - Advanced Textiles
- MDSE 3750 - Consumer Studies
- MDSE 4001 - New York Study Tour for Merchandising and Digital Retailing
- MDSE 4002 - Dallas Study Tour for Merchandising and Digital Retailing
- MDSE 4003 - Global Discovery: Hong Kong/China
- MDSE 4020 - E-Passport: Virtual Study Abroad
- MDSE 4510 - Advanced Buying, Planning and Allocation
- MDSE 4560 - Sustainable Strategies in Merchandising
- RETL 3950 - Visual Merchandising and Promotion
- RETL 4850 - Brand Development


## Minor requirements

One of two business option minors (18 hours)

## Business Foundations minor (option 1)

- ACCT 2010-Accounting Principles I (Financial Accounting) (with a C or better)
- ACCT 2020 - Accounting Principles II (Managerial Accounting) (with a C or better)
- MGMT 3720-Organizational Behavior
- MKTG 3650 - Foundations of Marketing Practice
- FINA 3770 - Finance


## Plus one of the following

- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4470 - Leadership
- LSCM 3960 - Logistics and Supply Chain Management
- MKTG 4600 - Retailing


## Marketing minor (option 2)

If a student chooses Option 2 (marketing minor), 3 of the 6 free elective hours must be ACCT 2010 with a grade of C or better.

- MKTG 3650 - Foundations of Marketing Practice
- 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


## Plus one of the following

- MKTG 3010 - Professional Selling
- MKTG 3700 - Marketing Metrics
- MKTG 4520 - Marketing Channels and Strategic Partnerships
- MKTG 4600 - Retailing


## Electives

6 hours.

## GPA requirements

- It is required that students entering the College of Merchandising, Hospitality and Tourism have a minimum grade point average of at least 2.5 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, MDSE, HFMD, DRTL, RETL and HMGT.
- Academic requirements for graduation with a BS from the College of Merchandising, Hospitality and Tourism include:
a. a minimum of 2.50 grade point average in the professional field, with minimum grades of C required in all CMHT, MDSE, HFMD, DRTL, RETL and HMGT courses;
b. a minimum of 2.0 grade point average in all courses completed at UNT; and
c. a minimum of 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work.


## 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 DallasFort Worth retail industry to give you the essential skills for the job market.

## Program requirements

## Admission and pre-major requirements

All students entering UNT who wish to pursue the Bachelor of Science with a major in merchandising enter as pre-majors. Before applying to major status, pre-majors must complete at least 30 hours of college course work, including the following:

## Pre-major requirements

Minimum grade of C required in each course.

- MDSE 2350 - Product Development I
- MDSE 2490-Introduction to Retail Merchandising
- MDSE 2650 - Textiles for Apparel
- MATH 1680 - Elementary Probability and Statistics
- Complete the first course of the Composition requirement of the University Core Curriculum
- UNT GPA of 2.5 or higher


## 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 Academics section of this catalog and the College of Merchandising, Hospitality and Tourism requirements

## Major requirements

## CMHT core, 12 hours

- CMHT 2790 - Career Development
- CMHT 3950-Creating Consumer Experiences
- CMHT 4750-Managing a Diverse Workforce
- CMHT 4790-Internship in Merchandising and Hospitality Management


## Merchandising

A total of 48 hours including the following courses:

- MDSE 2350 - Product Development I
- MDSE 2490 - Introduction to Retail Merchandising
- MDSE 2650-Textiles for Apparel
- MDSE 2750 - Consumers in a Global Market
- MDSE 3250 - Product Development II
- MDSE 3350 - Historic and Contemporary Styles of Apparel
- MDSE 3370 - Fashion Theory and Trend Analysis
- MDSE 3510 - Profit-Centered Merchandising
- MDSE 3750-Consumer Studies
- MDSE 4010 - Global Sourcing
- MDSE 4660 - Advanced Application
- DRTL 3090 - Consumer Engagement in Digital Channels


## Plus 12 hours to be selected from

- CMHT 4000-Global Discovery in Merchandising and Hospitality Management
- CMHT 4800 - Discovery: Research in Merchandising and Hospitality Management
- DRTL 2080 - Digital Authoring and Publishing Tools
- DRTL 2090 - Introduction to Digital Retailing
- DRTL 3190 - Digital Retailing Strategies
- HFMD 2400 - Introduction to the Furniture Industry
- HFMD 3570 - Decorative Accessories Merchandising
- MDSE 3650 - Advanced Textiles
- MDSE 4001 - New York Study Tour for Merchandising and Digital Retailing
- MDSE 4002 - Dallas Study Tour for Merchandising and Digital Retailing
- MDSE 4003 - Global Discovery: Hong Kong/China
- MDSE 4020 - E-Passport: Virtual Study Abroad
- MDSE 4080 - Merchandising Ventures
- MDSE 4510 - Advanced Buying, Planning and Allocation
- MDSE 4560 - Sustainable Strategies in Merchandising
- RETL 3950 - Visual Merchandising and Promotion
- RETL 4850-Brand Development


## Minor requirements

Two business option minors of 18 hours each:

## Business Foundations minor (Option 1)

- ACCT 2010 - Accounting Principles I (Financial Accounting) (with a grade of C or better)
- ACCT 2020 - Accounting Principles II (Managerial Accounting) (with a grade of C or better)
- MGMT 3720-Organizational Behavior
- MKTG 3650 - Foundations of Marketing Practice
- FINA 3770 - Finance


## And one of the following

- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 4470 - Leadership
- LSCM 3960 - Logistics and Supply Chain Management
- MKTG 4600-Retailing


## Marketing minor (Option 2)

If a student chooses Option 2 (marketing minor), 3 of the 6 free elective hours must be ACCT 2010 with a grade of C or better.

- MKTG 3650 - Foundations of Marketing Practice
- 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

And one of the following

- MKTG 3010 - Professional Selling
- MKTG 3700 - Marketing Metrics
- MKTG 4520 - Marketing Channels and Strategic Partnerships
- MKTG 4600 - Retailing


## Electives

6 hours.

## GPA requirements

- It is required that students entering the College of Merchandising, Hospitality and Tourism have a minimum grade point average of at least 2.5 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, MDSE, HFMD, DRTL, RETL and HMGT.
- Academic requirements for graduation with a BS from the College of Merchandising, Hospitality and Tourism include:
a. a minimum of 2.50 grade point average in the professional field, with minimum grades of C required in all CMHT, MDSE, HFMD, DRTL, RETL and HMGT courses;
b. a minimum of 2.0 grade point average in all courses completed at UNT; and
c. a minimum of 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work.


## Retailing, BS

## Retailing pre-major

All students entering UNT who wish to pursue the Bachelor of Science with a major in retailing enter as pre-majors. Before applying for major status, pre-majors must:

1. complete the first course of the Composition requirement of the University Core Curriculum
2. have a UNT GPA of 2.5 or higher and
3. complete 30 hours of college course work, with a grade of $C$ or better in each of the following courses:

- MATH 1680 - Elementary Probability and Statistics
- MDSE 2490 - Introduction to Retail Merchandising
- MDSE 2750 - Consumers in a Global Market


## Degree requirements

## 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 Academics section of this catalog and the College of Merchandising, Hospitality and Tourism requirements.

## Major requirements

CMHT core, 12 hours

- CMHT 2790 - Career Development
- CMHT 3950 - Creating Consumer Experiences
- CMHT 4750 - Managing a Diverse Workforce
- CMHT 4790-Internship in Merchandising and Hospitality Management

Retailing, 45 hours

Retail specialization, 36 hours

- DRTL 3090 - Consumer Engagement in Digital Channels
- DRTL 3190 - Digital Retailing Strategies
- MDSE 2490 - Introduction to Retail Merchandising
- MDSE 2750 - Consumers in a Global Market
- MDSE 3510 - Profit-Centered Merchandising
- MDSE 3750-Consumer Studies
- MDSE 4010-Global Sourcing
- MDSE 4080 - Merchandising Ventures
- MDSE 4510 - Advanced Buying, Planning and Allocation
- MDSE 4660 - Advanced Application
- RETL 3950 - Visual Merchandising and Promotion
- RETL 4850 - Brand Development

Electives, 9 hours

A maximum of 3 hours of study tours may be used in completion of this requirement.

- CMHT 4800 - Discovery: Research in Merchandising and Hospitality Management
- GEOG 4220 - Applied Retail Geography
- HFMD 3570 - Decorative Accessories Merchandising
- MDSE 2350 - Product Development I
- MDSE 3250 - Product Development II
- MDSE 4001 - New York Study Tour for Merchandising and Digital Retailing
- MDSE 4002 - Dallas Study Tour for Merchandising and Digital Retailing
- MDSE 4003-Global Discovery: Hong Kong/China
- MDSE 4004 - Global Discovery: Europe
- MGMT 3850 - Foundations of Entrepreneurship


## Business focus, 15 hours

- ACCT 2010-Accounting Principles I (Financial Accounting)
- ECON 1100 - Principles of Microeconomics
- MGMT 3860 - Human Resource Management
- MGMT 4470 - Leadership
- MKTG 3010 - Professional Selling


## GPA requirements

- It is required that students entering the College of Merchandising, Hospitality and Tourism have a minimum grade point average of at least 2.5 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, MDSE, HFMD, DRTL, RETL and HMGT.
- Academic requirements for graduation with a BS from the College of Merchandising, Hospitality and Tourism include:
a. a minimum of 2.50 grade point average in the professional field, with minimum grades of C required in all CMHT, MDSE, HFMD, DRTL, RETL and HMGT courses;
b. a minimum of 2.0 grade point average in all courses completed at UNT; and
c. a minimum of 2.0 grade point average in all work attempted, including transfer, correspondence, extension and residence work.


## Grad Track Options

## Merchandising, BS with grad track option leading to Merchandising, MS

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

## Admission requirements

Students seeking admission to the pathways graduate program apply both to the program area and to the graduate school for conditional admission. An applicant must have successfully completed 75 or more credit hours of their bachelor's degree program with an overall GPA of at least 3.25 before applying.

## 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 12 hours from the following courses, which are all 3 credits. A maximum of 6 hours may be taken from courses marked with (*).

- CMHT 5000 - Global Discovery in Merchandising and Hospitality Management*
- CMHT 5100 - Introduction to Research in Merchandising
- CMHT 5440 - Consumer Theory
- CMHT 5550 - Promotional Strategies
- CMHT 5600 - Managing Customer Experiences
- MDSE 5080 - Merchandising Ventures*
- MDSE 5090 - Virtual Merchandising*
- MDSE 5510 - Advanced Buying, Planning and Allocation*
- MDSE 5560 - Sustainable Strategies Merchandising*
- MDSE 5650 - International Sourcing
- MDSE 5660 - Advanced Merchandising Applications*
- MDSE 5850 - Brand Development*

For the remainder of the bachelor's degree requirements, please see the Bachelor of Science with a major in merchandising.

## Minors

## Home Furnishings Merchandising minor

The minor in home furnishings merchandising requires 18 hours.

## Required courses

- HFMD 2380 - Aesthetics and Environment
- HFMD 2400 - Introduction to the Furniture Industry
- HFMD 3355 - Historic and Contemporary Styles of Home Furnishings
- HFMD 3570 - Decorative Accessories Merchandising
- HFMD 4400 - Estimating for Home Furnishings


## Plus 3 hours selected from

- DRTL 3090 - Consumer Engagement in Digital Channels
- HFMD 2655 - Textiles for Home Furnishings
- HFMD 3380-Global Home Furnishings Industry
- MDSE 3750 - Consumer Studies
- MDSE 3850 - Promotions


## 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):

- HFMD 2400 - Introduction to the Furniture Industry
- HFMD 3570-Decorative Accessories Merchandising
- MDSE 3750-Consumer Studies


## Plus 9 hours selected from

- HFMD 3355 - Historic and Contemporary Styles of Home Furnishings
- HFMD 3380-Global Home Furnishings Industry
- HFMD 4400 - Estimating for Home Furnishings
- MDSE 3850 - Promotions
- DRTL 3090-Consumer Engagement in Digital Channels


## Merchandising minor

## Required

- MDSE 2350 - Product Development I
- MDSE 2490 - Introduction to Retail Merchandising
- MDSE 3370 - Fashion Theory and Trend Analysis
- MDSE 4010 - Global Sourcing
- DRTL 3090 - Consumer Engagement in Digital Channels


## Plus one of the following

- MDSE 2750 - Consumers in a Global Market
- MDSE 3750-Consumer Studies


## College of Music



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, 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.

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).

## Mission

The mission of the College of Music is to:

- Provide a dynamic learning environment for both future professionals and the broader university community in which each student's fullest musical potential may be achieved;
- Promote the highest standards of excellence and generate the most significant professional impact in all areas of scholarly and artistic activity;
- Support new music and new collaborations between music and related disciplines, and cultivate new approaches to scholarship, performance and education; and
- Affirm the fundamental value of music in educational settings and in society at large, going beyond advocacy to enhance the musical life of the community, the Metroplex, and the region.


## Admission requirements

## Freshman and transfer admission

Admission to the College of Music is contingent on clear admission to the university.

Those students who intend to be music majors must qualify by audition on their principal instrument or voice. Preference will be given to applications received by December 1 for fall admission. For additional procedures and opportunities, please contact the College of Music at collegeofmusic@unt.edu.

## Repertoire

Audition repertoire requirements for all instruments can be found on our web site at music.unt.edu/comp/admissions/undergraduate-repertoire. Transfer applicants for composition must also submit a composition portfolio at music.unt.edu/comp/admissions/undergraduate.

Prospective students unable to audition in person may submit a recording representative of their performance abilities.

After passing an audition and being accepted, students planning to major in composition may begin the undergraduate program through open enrollment in Beginning Composition I (see "Supplemental Information for the Bachelor of Music with a Major in Composition").

At Freshman Orientation, students will take placement examinations in piano. Transfer students will take similar examinations at Transfer Orientation.

## 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 web site at music.unt.edu/admissions/undergraduate-how-to-apply.

## 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 essc.unt.edu/saucs.

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.

## 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. Guitarists who major in jazz studies will take the Upper Division Examination on jazz guitar.

## 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 music office (please specify major, concentration or secondary, and particular performance medium - voice, trumpet, etc.).

## 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 history and theory lecture series attendance

As a graduation requirement, each undergraduate student with a declared major in music theory (BM) or a declared emphasis in music history (BA) is expected to attend all lectures presented in the division of music history, theory and ethnomusicology lecture series during each long term/semester of full-time enrollment (12 hours).

## 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. 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 general, choral and instrumental music (teacher certification), which requires a minimum of seven terms/semesters. Six terms/semesters are required for the Bachelor of Arts degree.

Laboratories are a cappella choir, concert choir, University Singers, men's chorus, women's chorus, symphony orchestra, concert orchestra, wind symphony, symphonic band, concert band, marching band, brass band, lab bands, jazz guitar lab, jazz repertory ensemble, Latin jazz lab, jazz keyboard laboratory, jazz singers and accompanying. Auditions are held at the beginning of the term/semester and are prerequisite for admission to the laboratory; the needs of the ensemble and students' preferences are considered.

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. Rehearsals: 4 hours a week.

Concert Choir - organized in 1940; major performing ensemble of about 50 mixed voices; membership may be shifted from one choir to another. Rehearsals: 4 hours a week.

University Singers - composed of 50-70 voices selected primarily from undergraduate students. Repertoire includes selections from a broad range of vocal literature. Rehearsals: 4 hours a week.

Men's Chorus - subsidiary organization of the a cappella and concert choirs; membership may be shifted from one choir to another. Gives several concerts a year. Rehearsals: 4 hours a week.

Women's Chorus - subsidiary organization of the a cappella and concert choirs; membership may be shifted from one choir to another. Gives several concerts a year. Rehearsals: 4 hours a week.

Symphony 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. Rehearsals: 6 hours a week.

Concert Orchestra - subsidiary organization of the Symphony Orchestra; membership may be shifted from one orchestra to another. Gives several concerts a year. Rehearsals: 6 hours a week.

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. Rehearsals: 6 hours a week.

Symphonic Band - study and performance of repertoire for the wind band. Public concerts each term/semester. Rehearsals: 4 hours a week.

Concert Band — study and performance of standard band repertoire. Public concerts each term/semester. Rehearsals: 4 hours a week.

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. Rehearsals: 6 hours a week.

Lab Bands - 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. Rehearsals: 4 hours a week.

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 provide the student with an opportunity to develop reading skills and section playing. Public concerts each term/semester. Rehearsals: 4 hours a week.

Jazz Repertory Ensemble - 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. Rehearsals: 4 hours a week.

Latin Jazz Laboratory - 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. Rehearsals: 4 hours a week.

Jazz Keyboard Laboratory - the repertoire is devoted primarily to electronic idioms and the reading of notated melodic passages as well as chord symbols. Open to all by audition. Good acoustic piano technique and improvisational skills are required. Rehearsals: 4 hours a week.

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.

Accompanying - for students majoring in piano and for students with piano concentrations who desire proficiency in reading and accompanying.

## Chamber music

Chamber music coaching is offered under course numbers MUCM 3510/MUCM 5510, MUCM 3520/MUCM 5520, MUCM 3530/MUCM 5530, MUCM 3540/MUCM 5540 and MUCM 3550/MUCM 5550. Small groups include string quartets, strings with piano, woodwind and brass quintets, saxophone quartets and jazz groups.

## Ensembles

A variety of conducted ensembles is offered under course numbers MUEN 2602/MUEN 5602, MUEN 2605/MUEN 5605, MUEN 2611/MUEN 5611, MUCM 3617/MUEN 5617, MUEN 2621/MUEN 5621, MUEN 2624/MUEN 5624, MUEN 2625/MUEN 5625, MUCM 3630/MUEN 5630 and MUEN 4585/MUEN 5585. Many groups perform publicly, appear at conventions and tour extensively. Ensembles include brass choir, trumpet choir, horn choir, trombone choir, tuba-euphonium ensemble, wind ensemble, collegium musicum, percussion ensemble and marimba ensemble, steel drum band, African ensemble, gamelan ensemble, flute choir, jazz ensembles, strings, classical guitar and electric guitar, 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 MUEN 3040 - 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. Guitarists who major in jazz studies will take the Upper Division Examination on jazz guitar.

Piano Proficiency Examination - This examination is required of all students majoring in music. To prepare for this examination, all nonkeyboard majors must enroll in secondary piano - MUAG 1011, MUAG 1012, MUAG 1013, MUAG 1014, or MUAS 1501 - 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.

Instrumental Proficiency Examination - This proficiency examination is for the student whose course outline requires brass, woodwinds, strings and/or percussion class. A working knowledge of all instruments is required.

Theory Proficiency Examination — This examination must be passed by each student majoring in music (BM and BA); it covers part writing and ear training.

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.

Conducting Proficiency Examination - This examination is required for students who major in general, choral and instrumental music and who transfer conducting course work from another institution. It must be passed prior to student teaching.

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 4470).

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.

## Music education student review

This examination is required for a major in general, choral and instrumental music. It must be passed prior to student teaching.

## 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 www.music.unt.edu/advising.

## Degree plan

The degree plan is an official document that lists courses completed, courses to be completed, proficiency examinations and all other requirements for a particular degree program. Each student makes a degree plan in conference with a designated music advisor. The degree plan should be made by the end of the sophomore year. Transfer students should have degree plans made during their first term/semester at UNT.

## 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 a degree program advisor.

## Bachelor of Music

This degree may be earned with a major in (1) performance; (2) general, choral and instrumental music; (3) composition; (4) music theory; or (5) jazz studies.

The student who majors in performance may choose piano (performance), piano (pedagogy), organ (performance), organ (church music), harpsichord, voice or an orchestral instrument. Additional choices include classical guitar and multiple woodwinds.

Each student should secure from the music office or advisor the eight-term/semester outline for the chosen major.

Instruction in each area is designed to train students for public performance and teaching in schools or private studios, to prepare them for passing barrier examinations, to develop them culturally, to develop musicianship and technical proficiency, to strengthen sight-reading and the ability to assimilate music without guidance, and to prepare them for participation in church services, orchestras, ensemble groups or graduate work. The curriculum for general, choral and instrumental music majors also leads to teacher certification by the State of Texas. Instruction is given in both group and individual settings.

## Degree requirements

Candidates for the Bachelor of Music must meet the following requirements.

1. Hours required and general/college requirements: Completion of a minimum of 121-134 total semester hours (depending on major, see below); 31 hours must be completed at UNT; 42 hours must be advanced ( 24 of which must be taken at UNT). Fulfillment of degree requirements for the Bachelor of Music degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Music requirements.
2. Major requirements: Major of 32-66 hours in music in a prescribed field, depending on the program. See specific degree for exact hours.
3. Other course requirements: See individual major below.
4. Minor: Minor of 18 hours minimum, 6 of which must be advanced. See specific degree plan for required minor below.
5. Electives: See individual major.
6. Other requirements:

0 Theory Proficiency Examination.
O Piano Proficiency Examination.
0 Other proficiency examinations as required in specific programs. See individual major.
0 Participation in a music laboratory (MULB) each long term/semester with a minimum of eight terms/semesters, except the BM with a major in general, choral and instrumental music (teacher certification), which requires a minimum of seven terms/semesters.

## General academic requirements

- Completion of University Core Curriculum (42 hours). See "University Core Curriculum Requirements" in the Academics section of this catalog. Some courses required on degree plans may be used to fulfill requirements under the Creative Arts, Language, Philosophy and Culture, Discovery and Capstone categories of the core.
- Completion of College of Music Core Curriculum (50 hours): music theory, 14 hours; music history and literature, 12 hours; music laboratory each long term/semester (a minimum of 8 hours); concentration or major instrument, 12 hours; secondary instrument, 2 hours; conducting, 2 hours.
- Completion of major program requirements and electives, for a total of 121-134 hours.

General academic requirements for all music majors include completion of courses in the University Core Curriculum. Consult the degree outlines for the various programs and the list of courses to satisfy University Core Curriculum Requirements available from the degree program advisor.

Majors in general, choral and instrumental music also must satisfy specific Teacher Certification course requirements, most of which are included in the University Core Curriculum (consult the degree outline). In addition to developmental reading, music theory, music history and literature, performance, conducting, and music laboratory requirements, a general, choral and instrumental music major must complete 18 hours of professional education that include 6 hours of music education courses to complete the course requirement of 129 hours.

## Teacher certification

Requirements for all-level music certification are included in the requirements for the BM with a major in general, choral and instrumental music.

Consult the College of Music and the College of Education for further requirements.

## Bachelor of Arts

Students completing the Bachelor of Arts degree with a major in music will have developed a strong understanding of music history, literature, and theory. Musicianship skills will be developed to a level commensurate with a liberal arts degree. The curriculum can serve as a basis for advanced degrees in non-performance areas of music. This degree may be earned with an emphasis in (1) general music or (2) music history and literature.

## Degree requirements

Candidates for the Bachelor of Arts with a major in music must meet the following requirements.

1. Hours required and general/college requirements: Completion of 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 "General University Requirements" in the Academics section of this catalog and the College of Music requirements.
2. Major requirements: Major of 51 hours in music, depending on the program. See specific degree for exact hours.
3. Other course requirements: See individual major.
4. Minor: Optional.
5. Electives: See individual major.
6. Other requirements:

O Theory Proficiency Examination.
O Piano Proficiency Examination.
0 Computer Proficiency Examination.
O Successful completion of Upper Division Examination in applied lessons (MUAC).

## General academic requirements

- Completion of University Core Curriculum (42 hours). See "University Core Curriculum Requirements" in the Academics section of this catalog. Some courses required on degree plans may be used to fulfill requirements under the Creative Arts, Life and Physical Sciences, Discovery and Capstone categories of the core.
- For the emphasis in music history and literature, students must complete all music history credits with no grade lower than B.


## 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

## 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 Academics section of this catalog and the College of Music requirements.

## Major requirements

## 27-32 hours, including:

- MUCP 1180 - Beginning Composition I
- MUCP 1190-Beginning Composition II
- MUCP 2180 - Intermediate Composition I
- MUCP 2190 - Intermediate Composition II
- MUCP 3180 - Advanced Composition I
- MUCP 3190 - Advanced Composition II
- MUCP 4180 - Advanced Composition III
- MUCP 4195 - Senior Composition Recital Capstone
- MUCP 4310 - Instrumentation
- MUCP 4670 - Introduction to Electroacoustic Music


## Plus 6 hours selected from

- MUCP 4320-Orchestration
- MUCP 4460 - Contemporary Music
- MUCP 4590 - Intermedia Performance Arts or
- MUEN 4595 - Intermedia Performance Arts
- MUCP 4680 - History and Technology of Electroacoustic Music
- Other 4000-level MUCP courses approved by the composition division


## Other course requirements

- MUMH 1600-Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500-Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- 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
- MUAC (1000-level applied concentration) (8)
- MUAC (3000-level applied concentration; any one instrument or voice) (4)
- 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)


## Minor requirements

23 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

## 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 - Beginning Composition I
- MUCP 1190 - Beginning Composition 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);
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. Students may take composition lessons during the summer, but must enroll in both sessions in order for the credits to be counted toward the degree. Because senior recitals are scheduled only during long terms/semesters, MUCP 4190 is not offered during the summer.
8. Composition majors are expected to present at least two public performances and/or readings of original compositions each year; these may include SPECTRUM programs, CEMI Centerpieces, composers forums, concerts, reading sessions, student recitals, or any offcampus venues.
9. 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 recital hearing.
10. During the senior year a major recital of original works 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 of the term/semester in which the senior recital is presented. Fulfillment of this requirement is contingent upon approval of the senior recital and portfolio by the composition faculty. Students must be enrolled in MUCP 4195 during the term/semester in which the recital is presented.
11. 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.
12. Candidates must pass the Concentration Proficiency Examination in the principal instrument or voice prior to the senior recital hearing.

## Note

Please refer to the composition division web site for additional information concerning policies and procedures: http://music.unt.edu/comp/students/policies-procedures.

## General, Choral and Instrumental Music (teacher certification), 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 Academics section of this catalog and the College of Music requirements.

## Major requirements

66-72 hours, 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)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510-Music History and Literature Since 1750
- MUAG 3800 - Fundamentals of Conducting
- MUED 2310 - Musicianship for Teaching I
- MUED 3100 - Musicianship for Teaching II

Music history, 3 hours

- MUMH 4050-Symphonic Literature
- MUMH 4070-Operatic Literature
- MUMH 4760 - Chamber Music Literature
- MUMH 4770 - Masterpieces of Choral Literature
- MUMH 4780 - American Music
- MUCP 4460 - Contemporary Music
- MUJS 4470 - History of Jazz


## Plus the following courses according to specialization

## Choral-Keyboard or Guitar

- MUAG 1905 - English Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907-German Diction
- MUAG 1909 - Italian Diction
- MUAG 1102 - Brass Class
- MUAG 1202 - Brass Class
- MUAG 1117 - Percussion Class
- MUAG 1121 - Strings Class
or
- MUAG 1221 - Strings Class
- MUAG 1125 - Woodwinds Class
or
- MUAG 1225 - Woodwinds Class
- MUAG 3820-Choral Conducting
- MUED 4203 - Secondary Choral Methods
- 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.)

7 hours from

- MULB 1801 - A Cappella Choir
- MULB 1802 - Concert Choir
- MULB 1803 - Women's Chorus
- MULB 1811 - Accompanying (2) (two semesters required for keyboard concentration)
- MULB 1815 - Men's Chorus
- 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.

## Choral-Vocal

- MUAG 1905 - English Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907-German Diction
- MUAG 1909 - Italian Diction
- MUAG 1102 - Brass Class
or
- MUAG 1202 - Brass Class
- MUAG 1117 - Percussion Class
- MUAG 1121 - Strings Class or
- MUAG 1221 - Strings Class
- MUAG 1125 - Woodwinds Class
or
- MUAG 1225 - Woodwinds Class
- MUAG 3820-Choral Conducting
- MUED 4203 - Secondary Choral Methods
- 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.)


## 7 hours from

- MULB 1801 - A Cappella Choir
- MULB 1802 - Concert Choir
- MULB 1803 - Women's Chorus
- MULB 1815 - Men's Chorus
- 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.

## Instrumental-Band, 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 (3)


## Instrumental methods class, 7 hours from

- MUAG 1102 - Brass Class
- MUAG 1202 - Brass Class
- MUAG 1117 - Percussion Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 1121 - Strings Class
- MUAG 1221 - Strings Class
- MUAG 1125 - Woodwinds Class
- MUAG 1225 - Woodwinds Class


## 4 hours from

- MULB 1806 - Wind Symphony
- MULB 1807-Symphonic Band
- MULB 1812 - Marching Band
- MULB 1813 - Concert Band


## Additional requirements

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.

## Instrumental-Orchestra

- MUAG 1102 - Brass Class
- MUAG 1202 - Brass Class
- MUAG 1117 - Percussion Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 1121 - Strings Class
or
- MUAG 1221 - Strings Class
- MUAG 1125 - Woodwinds Class
- MUAG 1225 - Woodwinds Class
- MUAG 3870 - Instrumental Conducting
- MUED 4209 - Music Performance: Instrumental
- 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.)
- MULB 1805 - Orchestra (minimum of 7)
- Lab participation is required each long term/semester.


## Additional requirements

Harp students will take both MUAG 1121 and MUAG 1221 on the MUED degree plan. In addition, harp students will replace one brass class (MUAG 1102) and one woodwinds class (MUAG 1125) 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.

## Instrumental-Elementary

- Declaration after MUED 3100.
- Must interview with music education faculty before declaring the instrumental-elementary track
- MUAG 1117 - Percussion Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 3870 - Instrumental Conducting
- MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction
- MUAC (1000-level applied concentration; any one instrument) (8)
- MUAC (3000-level applied concentration) (4)
- MUAS 1503 - Voice (1000-level secondary) (2)
- 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.)
- MULB 1812 - Marching Band (2)


## 4 hours selected from

Excluding major instrument.

- MUAG 1121 - Strings Class
- MUAG 1221 - Strings Class
- MUAG 1125 - Woodwinds Class
- MUAG 1225 - Woodwinds Class
- MUAG 1102 - Brass Class
- MUAG 1202 - Brass Class

2 hours from

- MULB 1801 - A Cappella Choir
- MULB 1802 - Concert Choir
- MULB 1803 - Women's Chorus
- MULB 1815 - Men's Chorus
- MULB 1816 - University Singers


## 3 hours from

- MULB 1805 - Orchestra
- MULB 1806-Wind Symphony
- MULB 1807 - Symphonic Band
- MULB 1813 - Concert Band


## Electives

## 4 hours

## 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 MUAG 1221 on the MUED degree plan. In addition, harp students will replace one brass class (MUAG 1102) and one woodwinds class (MUAG 1125) 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

- EDRE 4820 - Reading and Writing in Grades 4-8
- 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)


## Minor requirements

18 hours in music and education, including:

- MUED 3200 - Musicianship for Teaching III
- HDFS 3123 - Child Development
- EDME 4103 - Student Teaching in Grades 4-8
- EDSE 3800 - Professional Issues in Teaching
- EDSE 4148 - Student Teaching for Music Education


## Additional requirements

Choral-Keyboard or Guitar students also take MUED 4103. Instrumental and Instrumental-Elementary students also take MUED 4109.

## Electives

1-4 hours, depending on area of specialization:

- Choral—Keyboard or Guitar track: 1 hour
- Choral—Vocal track: 1 hour
- Instrumental—Band, Brass or Percussion: 3 hours
- Instrumental—Orchestra (strings): 3 hours
- Instrumental Music—Elementary: 4 hours


## 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 the following courses:

- 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)
- MUMH 1600 - Music in Human Imagination
- 8 hours of MUAC 1500 level
- 6 hours of English composition
- PSCI 1040 - American Government: Laws and Institutions
- PSCI 1050 - American Government: Process and Policies
- HIST 2610 - United States History to 1865
- HIST 2620 - United States History Since 1865
- 3 hours of college-level mathematics
- 6 hours of laboratory science (must include PHYS 1270)


## Additional requirements

Students must present an acceptable score on the Texas Higher Education Assessment (THEA) test. 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:

- MUED 3100 - Musicianship for Teaching II
- MUED 3200 - Musicianship for Teaching III
- Two 4000-level MUED courses (MUED 4103 and MUED 4203 for choral-general, MUED 4109 and MUED 4209 for instrumental, and MUED 4103 and MUED 4109 for instrumental-elementary)
- MUED 4103 - Advanced Techniques and Materials for Elementary General Music Instruction or
- MUED 4109 - Methods and Materials for Teaching Instrumental Music in Elementary Schools
- MUED 4203 - Secondary Choral Methods or
- MUED 4209 - Music Performance: Instrumental
- MUAG 3800 - Fundamentals of Conducting
- MUAG 3820-Choral Conducting or
- MUAG 3870 - Instrumental Conducting


## 7 hours selected from

- MUAG 1102 - Brass Class
- MUAG 1202 - Brass Class
- MUAG 1117 - Percussion Class
- MUAG 1121 - Strings Class
- MUAG 1221 - Strings Class
- MUAG 1224 - Voice Class for Music Majors
- MUAG 1125 - Woodwinds Class
- MUAG 1225 - Woodwinds Class
- MUAG 1905 - English 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:

- HDFS 3123 - Child Development
- EDME 4103 - Student Teaching in Grades 4-8
- EDSE 3800 - Professional Issues in Teaching
- EDSE 4148 - Student Teaching for Music Education


## 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, Theory 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.
a. Band curriculum:

- MULB 1806 - Wind Symphony
- MULB 1807 - Symphonic Band
- MULB 1813 - Concert Band
- MULB 1812 - Marching Band (a minimum of three terms/semesters)
b. Orchestra curriculum:
- MULB 1805 - Orchestra
c. Choral curriculum:
- MULB 1801 - A Cappella Choir
- MULB 1802 - Concert Choir
- MULB 1803 - Women's Chorus
- MULB 1815 - Men's Chorus
- 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.

## Jazz Studies (instrumental, arranging or vocal emphasis), BM

The jazz studies degree's primary purpose is (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; (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 Academics section of this catalog and the College of Music requirements.

## Major requirements

The major requires the following 43 hours, plus music laboratory and special requirements according to the student's emphasis (see below).

- 8 hours of MUAC 1000 (applied concentration)
- 6 hours of MUAC 3000 (applied jazz concentration) on any one instrument
- MUJS 1131 - Jazz Performance Fundamentals I (percussion concentration students take MUAG 1117 instead)
- MUJS 1132-Jazz Performance Fundamentals II
- MUJS 1360-Jazz Fundamentals
- MUJS 1361-Jazz Aural Fundamentals
- MUJS 1370-Jazz Fundamentals
- MUJS 1371 - Jazz Keyboard Fundamentals
- MUJS 1470-Introduction to Jazz Recordings
- MUJS 2360-Jazz Improvisation
- MUJS 2370-Jazz Improvisation
- MUJS 3610-Jazz Arranging
- MUJS 3620-Jazz Arranging
- MUJS 3470-Jazz Lecture Series (2)
- MUJS 4470 - History of Jazz
- MUJS 4720-Jazz Senior Recital Capstone


## Music laboratory, each long term/semester, minimum of 8 hours from

(a maximum of 2 hours of non-jazz lab band or choir may be substituted)

- MULB 1808-Jazz Lab Band
- MULB 1817 - Jazz Guitar Laboratory
- MULB 1818-Jazz Repertory Laboratory
- MULB 1819-Jazz Keyboard Laboratory
- MULB 1820-Jazz Singers Laboratory
- MULB 1821 - Latin Jazz Lab


## Special requirements for arranging emphasis

- MUJS 4610 - Advanced Jazz Arranging
- MUJS 4620 - Advanced Jazz Arranging
- MUCP 3080-Class Composition
- MUTH 3420 - Eighteenth-Century Counterpoint


## Special requirements for instrumental emphasis

- MUJS 3360 - Advanced Jazz Improvisation
- MUJS 3370 - Advanced Jazz Improvisation
- MUCM 3550 - Jazz Chamber Music (4)


## Special requirements for vocal performance emphasis

- MUCM 3550 - Jazz Chamber Music (2)
- MUJS 3120 - Vocal Jazz Techniques (4)
- MUJS 3900 - Vocal Pedagogy for Non-classical Styles
- MUJS 3920 - Songwriting
- MUJS 4120 - Vocal Jazz Styles


## Other required courses

- MUMH 1600-Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500-Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- 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)
- 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)
- 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


## Minor

None required.

## Electives

Arranging emphasis: 4 hours ( 3 hours of electives or core courses must be advanced).

Instrumental emphasis: 8 hours (6 hours of electives or core courses must be advanced.)

Vocal emphasis: 4 hours.

## Other requirements

- All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.
- Students majoring in jazz studies must qualify for admission to the applied concentration program for their instrument. They also must qualify by audition for participation in the Jazz Lab every term/semester
- MULB 1808 - Jazz Lab Band
- MULB 1817 - Jazz Guitar Laboratory
- MULB 1818 - Jazz Repertory Laboratory
- MULB 1819 - Jazz Keyboard Laboratory
- MULB 1820 - Jazz Singers Laboratory
- MULB 1821 - Latin Jazz Lab
- Candidates must pass the Jazz Concentration Proficiency Exam in their principal instrument or voice.


## Music Theory, BM

The Bachelor of Music in with a major in music theory is designed for students who are interested in the theoretical and analytical bases of music. The purpose of the program 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 put them into appropriate historical context, and to prepare students for advanced study at the master's and doctoral level in music history.

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 music theory.

## 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 Academics section of this catalog and the College of Music requirements.

## Major requirements

## 44 hours, 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
- MUTH 3520 - Harmonic Analysis
- MUTH 4370 - Schenkerian Analysis
- MUTH 4520 - Twentieth-Century Techniques
- MUTH 4680 - Advanced Topics in Music Theory
- MUTH 4920 - Senior Colloquium in Music Theory
- MUCP 3090-Class Composition II
- MUCP 4310 - Instrumentation


## Other course requirements

- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- 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)


## Foreign language requirements

- FREN 2040 - Intermediate French
- FREN 2050 - Intermediate French
or
- GERM 2040 - Intermediate German
- GERM 2050 - Intermediate German

Music history, 3 hours

Choose one from below:

- MUMH 4780-American Music
- MUJS 4470 - History of Jazz
- MUET 4500 - Introduction to Ethnomusicology


## Minor requirements

24 hours in applied music, including:

- MUAG 3800 - Fundamentals of Conducting
- MUAC (1000-level applied concentration; any one instrument or voice) (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)
- MULB (any music laboratory, each long term/semester) (minimum of 8)


## Electives

3 hours.

## Other requirements

- All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.
- Candidates must pass the Concentration Proficiency Examination in the principal instrument or voice.
- Theory major candidates must complete the following with a B average and no grade lower than a C: MUTH 1400, MUTH 1410, MUTH 1500, MUTH 1510, MUTH 2400, MUTH 2410, MUTH 2500, MUTH 2510.
- Complete all remaining theory courses with no grade lower than a B: MUTH 3410, MUTH 3420, MUTH 3510, MUTH 3520, MUTH 4370, MUTH 4520, MUTH 4920, MUCP 3090, MUCP 4310.
- All music theory majors are expected to attend division events, including the MHTE lecture series (Wednesdays at 4:00 p.m.), hosted conferences, and departmentals (once to twice per semester). Failure to attend these events may result in removal from the program. Exceptions must be approved in advance by the area coordinator.


## Music with an emphasis in Music History and Literature, BA

The Bachelor of Arts with an emphasis in music history and literature is designed for music majors who are ready to embark upon a rigorous program of study in music history that stresses critical thinking and excellence in verbal expression and writing. Classes cover a variety of musical periods, genres, cultural sources, and the music of representative composers. The primary goal of the Bachelor of Arts with a major in music and an emphasis in music history and literature is to prepare students for graduate study in musicology or other related careers.

Candidates for the Bachelor of Arts with a major in music and an emphasis in music history and literature 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 "General university requirements" in the Academics section of this catalog and the College of Music requirements.

## Major requirements

- 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)


## Keyboard skills, 2 hours

(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 1013 - Keyboard Skills for Music Majors and/or
- MUAG 1014 - Keyboard Skills for Music Majors


## Applied music, 8 hours

Concentration level (MUAC)

## Music laboratory (MULB), 6 hours

## Music history and literature, 18 hours

- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750


## Plus 9 hours from

- MUMH 4050-Symphonic Literature
- MUMH 4070 - Operatic Literature
- MUMH 4760-Chamber Music Literature
- MUMH 4770-Masterpieces of Choral Literature
- MUMH 4780-American Music
- MUJS 4470 - History of Jazz
- MUET 4500 - Introduction to Ethnomusicology
- MUMH 4900-Special Problems (with consent of music history faculty mentor)
- MUMH 4910-Special Problems (with consent of music history faculty mentor)


## Thesis project, 3 hours

- MUMH 4920-Senior Thesis in Music History or
- MUMH 4951 - Honors College Capstone Thesis (may be used to satisfy the Capstone requirement of the University Core Curriculum)


## Other course requirements

- PHYS 1270-Science and Technology of Musical Sound (required of music majors and will satisfy one half of the Life and Physical Sciences requirement of the University Core Curriculum)


## Foreign language requirement

Minimum of 12 hours in the same language, including 6 advanced hours.
General studies electives, 18 hours (advanced)

The advanced courses (3000 level or higher) must be from outside the College of Music.

## Minor

Optional.

## Other requirements

- In order to be accepted to the music history and literature emphasis, students must submit two writing samples to the music history area. This may be done as early as the spring semester (March 1 ) of the freshman year or at any point thereafter (it is strongly recommended to submit before the completion of the sophomore year). The first sample is a personal statement. The second sample should be a paper that the student has written for any college-level class, with the professor's comment and grade on it. The music history area will assign a professor to serve as mentor to students whom it accepts as majors. Students who are rejected may apply only one more time, in a subsequent semester, to the emphasis.
- Students should choose the general studies elective credits in consultation with their mentor (music history faculty). Recommended fields include (but are not limited to) philosophy, history, art, English literature and foreign languages.
- German is the recommended foreign language if the student intends to pursue musicology at the graduate level. Another language may be more appropriate if the student has alternative career goals. The language should be selected in consultation with the student's mentor.
- Students must complete all music history credits with no grade lower than B.
- 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 the Creative Arts, Life and Physical Sciences, Discovery and Capstone categories of the University Core Curriculum.

University Core Curriculum requirements include:
0 Discovery and Capstone (6)
O Communication (6) - ENGL 1310 and ENGL 1320 recommended
O Mathematics (3) - MATH 1580 or MATH 1581 recommended
O Life and Physical Sciences (6) - PHYS 1270 and additional laboratory science
O Creative Arts (3) - met by MUMH 1600
0 Language, Philosophy and Culture (3)
O American History (6) - HIST 2610 and HIST 2620
0 Government/Political Science (6) - PSCI 1040 and PSCI 1050
0 Social and Behavioral Sciences (3)

- Proficiency Examinations:

O Theory Proficiency Examination
O Piano Proficiency Examination
O Successful completion of Upper Division examination in applied lessons (MUAC)

## 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 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Arts degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Music requirements.

## Major requirements

51 hours of music 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)
- 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)
- 8 hours in applied music, concentration level (MUAC)
- 6 hours of MULB enrollment


## Music history and literature, 12 hours

- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750

Plus 3 hours from

- 4000-level MUMH course
- MUET 4500 - Introduction to Ethnomusicology
- MUJS 4470 - History of Jazz


## Music electives, 9 hours (advanced)

## 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)


## Foreign language requirement

Minimum of 12 hours in the same language, including 6 advanced hours.

## Minor

Optional.

## General studies electives, 18 hours (advanced)

18 advanced credit hours of courses must be from courses outside the College of Music ( 3000 level or higher). See specific emphasis requirements.

## Other requirements

- Completion of University Core Curriculum (42 hours). See "University Core Curriculum requirements." Some courses required on degree plans may be used to fulfill requirements under the Visual and Performing Arts, Natural Sciences, Discovery and Capstone categories of the University Core Curriculum. University Core Curriculum requirements include:

O Discovery and Capstone (6)
O Communication (6) — ENGL 1310 and ENGL 1320 recommended.
O Mathematics (3) - MATH 1580 or MATH 1581 recommended.
O Life and Physical Sciences (6) - PHYS 1270 and an additional laboratory science.
O Creative Arts (3) - met by MUMH 1600.
0 Language, Philosophy and Culture (3)
O American History (6) - HIST 2610 and HIST 2620.
O Government/Political Science (6) — PSCI 1040 and PSCI 1050.
0 Social and Behavioral Sciences (3)

- Proficiency examinations:

Theory Proficiency Examination
Piano Proficiency Examination
Successful completion of Upper Division Examination in applied lessons (MUAC)

## 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

Click here to view the general "Bachelor of Music" requirements within the "College of Music" section.

## Major in Performance

The following choices are available under performance.

- Piano (performance)
- Piano (pedagogy)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments

O Strings: violin, viola, cello and double bass
O Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone euphonium, horn and tuba
0 Percussion
0 Harp
0 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.

1. Completion of at least 60 semester hours with an average of C or better.
2. 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)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

3. Completion of sophomore applied major study, or equivalent for transfer students, with at least a grade of B.
4. Successful completion of Upper Division Examination.

## Graduation requirements for majors in Performance

1. Completion of 20-32 hours in the major instrument/voice. (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 theory, piano and 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, MUCP and MUED. Credit hours and courses vary by performance area.
6. Other music and general electives $3-10$ hours (see program outlines below for specific recommendations).
7. A total of 121-134 hours are required.

## Degree requirements

## 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 Academics section of this catalog and the College of Music requirements.

## Major requirements

33 hours, including:

- MUAM 1528 - Harpsichord (12)
- MUAM 3528 - Harpsichord (12)
- MUAG 4410 - Harpsichord Literature and Pedagogy
- MUAG 4420 - Harpsichord Literature and Pedagogy
- MUAG 4711 - Keyboard Senior Recital Capstone


## 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
- MULB, Music Laboratory (1000 level) (any music laboratory) (each long term/semester, minimum of 8)
- MUMH 1600-Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- 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)


## Foreign language

- FREN 2040 - Intermediate French
- FREN 2050-Intermediate French or
- GERM 2040 - Intermediate German
- GERM 2050 - Intermediate German


## Music history, 3 hours

- MUMH 4050-Symphonic Literature
- MUMH 4760-Chamber Music Literature
- MUMH 4770 - Masterpieces of Choral Literature
- MUMH 4780 - American Music


## Minor requirements

- 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


## Plus 3 hours selected from

- MUTH 3410-Sixteenth-Century Counterpoint
- MUTH 3520 - Harmonic Analysis
- MUCP 3080-Class Composition
- MUCP 4310 - Instrumentation


## Electives

10 hours, 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.


## 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

Click here to view the general "Bachelor of Music" requirements within the "College of Music" section.

## Major in Performance

The following choices are available under performance.

- Piano (performance)
- Piano (pedagogy)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments

0 Strings: violin, viola, cello and double bass
O Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone euphonium, horn and tuba
0 Percussion
O Harp
O 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.

1. Completion of at least 60 semester hours with an average of $C$ or better.
2. 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)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

3. Completion of sophomore applied major study, or equivalent for transfer students, with at least a grade of B.
4. Successful completion of Upper Division Examination.

## Graduation requirements for majors in Performance

1. Completion of 20-32 hours in the major instrument/voice. (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 theory, piano and 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, MUCP and MUED. Credit hours and courses vary by performance area.
6. Other music and general electives $3-10$ hours (see program outlines below for specific recommendations).
7. A total of 121-134 hours are required.

## Degree requirements

## Hours required and general/college requirements

## Major requirements

40 hours, including:

- MUAM (1000-level applied major) (8)
- MUAM (3000-level applied major) (6)
- MUAC (1000-level applied concentration) (first auxiliary instrument) (4)
- MUAC (1000-level applied concentration) (second auxiliary instrument) (4)
- MUAC (3000-level applied concentration) (third auxiliary instrument) (4)
- MUAC (3000-level applied concentration) (fourth auxiliary instrument) (4)
- MUAG 4360 - Instrumental Pedagogy and Repertoire or
- MUAG 4370 - Instrumental Pedagogy and Repertoire
- MUAG 4710 - Instrumental Studies Senior Recital Capstone
- 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
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- 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 laboratory, each long term/semester, minimum of 8 hours from

- MULB 1805 - Orchestra
- MULB 1806 - Wind Symphony
- MULB 1807 - Symphonic Band
- MULB 1812 - Marching Band
- MULB 1813 - Concert Band


## Music history, 3 hours

- MUMH 4050-Symphonic Literature
- MUMH 4760 - Chamber Music Literature
- MUET 4500 - Introduction to Ethnomusicology
- MUJS 4470 - History of Jazz
- MUCP 4460 - Contemporary Music


## Minor requirements

- 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


## Plus 3 hours selected from

- MUTH 3410 - Sixteenth-Century Counterpoint
- MUTH 3420 - Eighteenth-Century Counterpoint
- MUTH 3520 - Harmonic Analysis
- MUTH 4370 - Schenkerian Analysis
- MUCP 3180 - Advanced Composition I
- MUCP 4310 - Instrumentation


## Electives

3 hours (1 of which must be advanced).

## 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.

## 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

Click here to view the general "Bachelor of Music" requirements within the "College of Music" section.

## Major in Performance

The following choices are available under performance.

- Piano (performance)
- Piano (pedagogy)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments

0 Strings: violin, viola, cello and double bass
O Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone euphonium, horn and tuba
O Percussion
O Harp
O 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.

1. Completion of at least 60 semester hours with an average of C or better.
2. 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)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

3. Completion of sophomore applied major study, or equivalent for transfer students, with at least a grade of B.
4. Successful completion of Upper Division Examination.

## Graduation requirements for majors in Performance

1. Completion of 20-32 hours in the major instrument/voice. (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 theory, piano and 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, MUCP and MUED. Credit hours and courses vary by performance area.
6. Other music and general electives $3-10$ hours (see program outlines below for specific recommendations).
7. A total of 121-134 hours are required.

## Degree requirements

## 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 Academics section of this catalog and the College of Music 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 Capstone


## Chamber music, 6 hours

Note: percussion majors may use MUCM 3617; harp majors may use MUCM 3630; guitar majors may use MUEN 2621; 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


## 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
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- 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 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 1805-Orchestra
- MULB 1806 - Wind Symphony
- MULB 1807-Symphonic Band
- MULB 1812 - Marching Band
- MULB 1813 - Concert Band


## Music history, 3 hours

- MUMH 4050 - Symphonic Literature
- MUMH 4760-Chamber Music Literature
- MUET 4500 - Introduction to Ethnomusicology
- MUJS 4470 - History of Jazz
- MUCP 4460 - Contemporary Music


## Minor requirements

20 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


## Plus 3 hours selected from

- MUTH 3410 - Sixteenth-Century Counterpoint
- MUTH 3420 - Eighteenth-Century Counterpoint
- MUTH 3520 - Harmonic Analysis
- MUTH 4370-Schenkerian Analysis
- MUCP 3080-Class Composition
- MUCP 4310 - Instrumentation


## Electives

5 hours (1 of which must be advanced).

## Other requirements

All non-keyboard majors must enroll in secondary piano each long term/semester until proficiency is passed.

## Stringed instruments (violin, viola, cello, double bass)

- A minimum of eight terms/semesters of MULB 1805, Symphony 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 classic, romantic and contemporary styles. The equivalent of one-half recital must be given the junior year and a full recital in the senior year.


## 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

Click here to view the general "Bachelor of Music" requirements within the "College of Music" section.

## Major in Performance

The following choices are available under performance.

- Piano (performance)
- Piano (pedagogy)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments

0 Strings: violin, viola, cello and double bass
O Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone euphonium, horn and tuba
O Percussion
0 Harp
0 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.

1. Completion of at least 60 semester hours with an average of $C$ or better.
2. 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)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

3. Completion of sophomore applied major study, or equivalent for transfer students, with at least a grade of B.
4. Successful completion of Upper Division Examination.

## Graduation requirements for majors in Performance

1. Completion of 20-32 hours in the major instrument/voice. (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 theory, piano and 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, MUCP and MUED. Credit hours and courses vary by performance area.
6. Other music and general electives $3-10$ hours (see program outlines below for specific recommendations).
7. A total of 121-134 hours are required.

## Degree requirements

## 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 Academics section of this catalog and the College of Music requirements.

## Major requirements

34 hours, including:

- MUAM 1502 - Organ (12)
- MUAM 3502 - Organ (12)
- MUAG 4380 - Organ Literature and Pedagogy (3)
- MUAG 4711 - Keyboard Senior Recital Capstone (3)
- MUAG 4720 - Organ Service Playing I (2) (a grade of B or better satisfies the Piano Proficiency Exam requirement)
- MUAG 4730 - Organ Service Playing II (2)


## 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)
- MULB, Music Laboratory (1000-level) (choral laboratory recommended) (each long term/semester, minimum of 8)
- MUAG 3800 - Fundamentals of Conducting
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- 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)


## Foreign language

(Contact the Department of World Languages, Literatures and Cultures for placement)

- FREN 2040 - Intermediate French
- FREN 2050 - Intermediate French or
- GERM 2040 - Intermediate German
- GERM 2050 - Intermediate German

Music history, 3 hours

- MUMH 4050-Symphonic Literature
- MUMH 4760-Chamber Music Literature
- MUMH 4780-American Music


## Minor requirements

23 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


## Plus 3 hours selected from

- MUTH 3410 - Sixteenth-Century Counterpoint
- MUTH 3520 - Harmonic Analysis
- MUCP 3080 - Class Composition
- MUCP 4310 - Instrumentation


## Electives

7 hours (6 of which must be advanced)

## 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.


## 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

Click here to view the general "Bachelor of Music" requirements within the "College of Music" section.

## Major in Performance

The following choices are available under performance.

- Piano (performance)
- Piano (pedagogy)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments

0 Strings: violin, viola, cello and double bass
O Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone euphonium, horn and tuba
0 Percussion
O Harp
0 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.

1. Completion of at least 60 semester hours with an average of C or better.
2. 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)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

3. Completion of sophomore applied major study, or equivalent for transfer students, with at least a grade of B.
4. Successful completion of Upper Division Examination.

## Graduation requirements for majors in Performance

1. Completion of 20-32 hours in the major instrument/voice. (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 theory, piano and 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, MUCP and MUED. Credit hours and courses vary by performance area.
6. Other music and general electives $3-10$ hours (see program outlines below for specific recommendations).
7. A total of 121-134 hours are required.

## 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 Academics section of this catalog and the College of Music requirements.

## Major requirements

38 hours, including:

- MUAM 1502 - Organ (12)
- MUAM 3502 - Organ (6)
- MUAG 3800 - Fundamentals of Conducting
- MUAG 3820-Choral Conducting
- MUAG 4380 - Organ Literature and Pedagogy
- MUAG 4711 - Keyboard Senior Recital Capstone
- MUAG 4720 - Organ Service Playing I (2) (a grade of B or better satisfies the Piano Proficiency Exam requirement)
- MUAG 4730 - Organ Service Playing II (2)
- MUAG 4740 - Seminar in Church Music (6)


## Other required courses

- MUAG 1013 - Keyboard Skills for Music Majors and/or
- MUAG 1014 - Keyboard Skills for Music Majors (may be waived upon successful completion of the Piano Proficiency upon entrance to UNT, and replaced by 2 credits of MUAS 1000-level applied secondary)
- MULB, Music Laboratory (1000 level) (choral laboratory recommended) (each long term/semester, minimum of 8)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- 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 history, 3 hours

- MUMH 4050 - Symphonic Literature
- MUMH 4760 - Chamber Music Literature
- MUMH 4780 - American Music


## Foreign language

- FREN 2040 - Intermediate French
- FREN 2050 - Intermediate French or
- GERM 2040 - Intermediate German
- GERM 2050 - Intermediate German


## Minor requirements

- 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


## Plus 3 hours selected from

- MUTH 3410- Sixteenth-Century Counterpoint
- MUTH 3510 - Form Analysis
- MUTH 3520 - Harmonic Analysis
- MUCP 3080 - Class Composition
- MUCP 4310 - Instrumentation
- MUCP 4460 - Contemporary Music


## Electives

7 hours (1 of which must be advanced)

## 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.


## Performance (specialization: Piano Pedagogy), BM

The purpose of the Bachelor of Music with a major in performance and a specialization in piano pedagogy 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

## Major in Performance

The following choices are available under performance.

- Piano (performance)
- Piano (pedagogy)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments

0 Strings: violin, viola, cello and double bass
O Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone euphonium, horn and tuba
O Percussion
0 Harp
O 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.

1. Completion of at least 60 semester hours with an average of C or better.
2. 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)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

3. Completion of sophomore applied major study, or equivalent for transfer students, with at least a grade of B.
4. Successful completion of Upper Division Examination.

## Graduation requirements for majors in Performance

1. Completion of 20-32 hours in the major instrument/voice. (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 theory, piano and 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, MUCP and MUED. Credit hours and courses vary by performance area.
6. Other music and general electives $3-10$ hours (see program outlines below for specific recommendations).
7. A total of 121-134 hours are required.

## 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 Academics section of this catalog and the College of Music requirements.

## Major requirements

37 hours, including:

- MUAM 1501 - Piano (8)
- MUAM 3501 - Piano (6)
- MUAS 3523 - Functional Piano (2)
- MUAG 3260 - Piano Literature
- MUAG 3270 - Piano Literature
- MUAG 4160 - Elementary Piano Pedagogy
- MUAG 4170 - Intermediate Piano Pedagogy
- MUAG 4001 - Student Teaching in Studio Piano
- MUAG 4002 - Student Teaching in Group Piano
- MUAG 4711 - Keyboard Senior Recital Capstone


## 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
- MUCM 3510 - String Chamber Music (2)
- MULB 1811 - Accompanying (each long term/semester, minimum of 8)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- HDFS 1013 - Human Development (may be used to satisfy Social and Behavioral Sciences 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 history, 3 hours

- MUMH 4760-Chamber Music Literature
- MUET 4500 - Introduction to Ethnomusicology
- MUCP 4460 - Contemporary Music


## Minor requirements

26 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
- MUTH 3520 - Harmonic Analysis


## Plus 3 hours selected from

- MUAG 3240-Techniques of Piano Accompanying
- MUCP 3080-Class Composition
- MUCP 4310 - Instrumentation
- MUCP 4460 - Contemporary Music


## Electives

4 hours.

## Other requirements

- 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.
- Successful completion of the Open Score/Transposition exam.


## 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

Click here to view the general "Bachelor of Music" requirements within the "College of Music" section.

## Major in Performance

The following choices are available under performance.

- Piano (performance)
- Piano (pedagogy)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments

O Strings: violin, viola, cello and double bass
O Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone euphonium, horn and tuba
0 Percussion
0 Harp
0 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.

1. Completion of at least 60 semester hours with an average of C or better.
2. 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)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

3. Completion of sophomore applied major study, or equivalent for transfer students, with at least a grade of B.
4. Successful completion of Upper Division Examination.

## Graduation requirements for majors in Performance

1. Completion of 20-32 hours in the major instrument/voice. (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 theory, piano and 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, MUCP and MUED. Credit hours and courses vary by performance area.
6. Other music and general electives $3-10$ hours (see program outlines below for specific recommendations).
7. A total of 121-134 hours are required.

## 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 Academics section of this catalog and the College of Music requirements.

## Major requirements

- MUAM 1501 - Piano (12)
- MUAM 3501 - Piano (9)
- MUAG 3260 - Piano Literature
- MUAG 3270 - Piano Literature
- MUAG 4160 - Elementary Piano Pedagogy
- MUAG 4170 - Intermediate Piano Pedagogy
- MUAG 4711 - Keyboard Senior Recital Capstone


## 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
- MUCM 3510 - String Chamber Music (2)
- MULB 1811 - Accompanying (each long term/semester, minimum of 8)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500 - Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- 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 history, 3 hours

- MUMH 4760-Chamber Music Literature
- MUCP 4460 - Contemporary Music


## Minor requirements

23 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

Plus 3 hours selected from

- MUAG 3240-Techniques of Piano Accompanying
- MUCP 3080 - Class Composition
- MUCP 4310 - Instrumentation
- MUCP 4460 - Contemporary Music
- MUTH 3520 - Harmonic Analysis


## Electives

8 hours ( 3 hours of which must be in music; 5 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.
- Successful completion of the Open Score/Transposition exam.


## 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

Click here to view the general "Bachelor of Music" requirements within the "College of Music" section.

## Major in Performance

The following choices are available under performance.

- Piano (performance)
- Piano (pedagogy)
- Organ (performance)
- Organ (church music)
- Harpsichord
- Voice
- Orchestral Instruments

0 Strings: violin, viola, cello and double bass
O Winds: flute, oboe, clarinet, bassoon, saxophone, woodwinds (a combination of all five instruments), trumpet, trombone euphonium, horn and tuba
0 Percussion
O Harp
O 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.

1. Completion of at least 60 semester hours with an average of C or better.
2. 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)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)

3. Completion of sophomore applied major study, or equivalent for transfer students, with at least a grade of B.
4. Successful completion of Upper Division Examination.

## Graduation requirements for majors in Performance

1. Completion of 20-32 hours in the major instrument/voice. (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 theory, piano and 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, MUCP and MUED. Credit hours and courses vary by performance area.
6. Other music and general electives $3-10$ hours (see program outlines below for specific recommendations).
7. A total of 121-134 hours are required.

## Degree requirements

## Hours required and general/college requirements

A minimum of 134 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 Academics section of this catalog and the College of Music requirements.

## Major requirements, 36 hours

- MUAM 1503 - Voice (8)
- MUAM 3503 - Voice (9)
- MUAG 1905 - English Diction for Singers
- MUAG 1906 - French Diction
- MUAG 1907 - German Diction
- MUAG 1909 - Italian Diction
- MUAG 3800 - Fundamentals of Conducting
- MUAG 3820 - Choral Conducting
- MUAG 4210 - Vocal Literature
- MUAG 4300 - Science and Pedagogy of Singing
- MUAG 4712 - Voice Senior Recital Capstone
- MUEN 3040 - Opera Theatre (2)

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)
- MUMH 1600 - Music in Human Imagination (may be used to satisfy the Creative Arts requirement of the University Core Curriculum)
- MUMH 3500-Music History and Literature to 1750
- MUMH 3510 - Music History and Literature Since 1750
- MUMH 4070-Operatic Literature
or
- MUMH 4770-Masterpieces of Choral Literature
- 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)


## Foreign language

- ITAL 1010 - Elementary Italian and
- ITAL 1020 - Elementary Italian


## Followed by

- GERM 1010 - Elementary German and
- GERM 1020 - Elementary German
or
- FREN 1010 - Elementary French and
- FREN 1020 - Elementary French


## Music laboratory, each long term/semester, minimum of 8 hours from

- MULB 1801 - A Cappella Choir
- MULB 1802 - Concert Choir
- MULB 1803 - Women's Chorus
- MULB 1815 - Men's Chorus
- MULB 1816 - University Singers


## Minor requirements

## 20 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


## Plus 3 hours selected from

- MUTH 3410 - Sixteenth-Century Counterpoint
- MUTH 3420 - Eighteenth-Century Counterpoint
- MUTH 3510 - Form Analysis
- MUTH 3520 - Harmonic Analysis
- MUCP 3080-Class Composition
- MUCP 4310 - Instrumentation


## Electives

8 hours (3 of which must be advanced).

## 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 a group of Italian, French, German and English songs and an aria from opera or oratorio.


## Minors

## 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); music history (MUMH 3000 and MUMH 3010); additional music electives, 4 semester hours credit (may include courses with the following UNT course prefixes: MUAG, MUCM, MUET, MUGC, MUJS, MUAC, MUAM, MUAS, MUCP, MUED, MUEN, MUMH, MULB, MUTH).

## Requirements

## College of Music Degree Requirements

## 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 a degree program advisor.

## Bachelor of Music

This degree may be earned with a major in (1) performance; (2) general, choral and instrumental music; (3) composition; (4) music theory; or (5) jazz studies.

The student who majors in performance may choose piano (performance), piano (pedagogy), organ (performance), organ (church music), harpsichord, voice or an orchestral instrument. Additional choices include classical guitar and multiple woodwinds.

Each student should secure from the music office or advisor the eight-term/semester outline for the chosen major.

Instruction in each area is designed to train students for public performance and teaching in schools or private studios, to prepare them for passing barrier examinations, to develop them culturally, to develop musicianship and technical proficiency, to strengthen sight-reading and the ability to assimilate music without guidance, and to prepare them for participation in church services, orchestras, ensemble groups or graduate work. The curriculum for general, choral and instrumental music majors also leads to teacher certification by the State of Texas. Instruction is given in both group and individual settings.

## Degree requirements

Candidates for the Bachelor of Music must meet the following requirements.

1. Hours required and general/college requirements: Completion of a minimum of 121-134 total semester hours (depending on major, see below); 31 hours must be completed at UNT; 42 hours must be advanced ( 24 of which must be taken at UNT). Fulfillment of degree requirements for the Bachelor of Music degree as specified in the "University Core Curriculum" in the Academics section of this catalog and the College of Music requirements.
2. Major requirements: Major of 32-66 hours in music in a prescribed field, depending on the program. See specific degree for exact hours.
3. Other course requirements: See individual major below.
4. Minor: Minor of 18 hours minimum, 6 of which must be advanced. See specific degree plan for required minor below.
5. Electives: See individual major.
6. Other requirements:

0 Theory Proficiency Examination.
0 Piano Proficiency Examination.
O Other proficiency examinations as required in specific programs. See individual major.
O Participation in a music laboratory (MULB) each long term/semester with a minimum of eight terms/semesters, except the BM with a major in general, choral and instrumental music (teacher certification), which requires a minimum of seven terms/semesters.

## General academic requirements

- Completion of University Core Curriculum (42 hours). See "University Core Curriculum Requirements" in the Academics section of this catalog. Some courses required on degree plans may be used to fulfill requirements under the Creative Arts, Language, Philosophy and Culture, Discovery and Capstone categories of the core.
- Completion of College of Music Core Curriculum (50 hours): music theory, 14 hours; music history and literature, 12 hours; music laboratory each long term/semester (a minimum of 8 hours); concentration or major instrument, 12 hours; secondary instrument, 2 hours; conducting, 2 hours.
- Completion of major program requirements and electives, for a total of 121-134 hours.

General academic requirements for all music majors include completion of courses in the University Core Curriculum. Consult the degree outlines for the various programs and the list of courses to satisfy University Core Curriculum Requirements available from the degree program advisor.

Majors in general, choral and instrumental music also must satisfy specific Teacher Certification course requirements, most of which are included in the University Core Curriculum (consult the degree outline). In addition to developmental reading, music theory, music history and literature, performance, conducting, and music laboratory requirements, a general, choral and instrumental music major must complete 18 hours of professional education that include 6 hours of music education courses to complete the course requirement of 129 hours.

## Teacher certification

Requirements for all-level music certification are included in the requirements for the BM with a major in general, choral and instrumental music.
Consult the College of Music and the College of Education for further requirements.

## Bachelor of Arts

Students completing the Bachelor of Arts degree with a major in music will have developed a strong understanding of music history, literature, and theory. Musicianship skills will be developed to a level commensurate with a liberal arts degree. The curriculum can serve as a basis for
advanced degrees in non-performance areas of music. This degree may be earned with an emphasis in (1) general music or (2) music history and literature.

## Degree requirements

Candidates for the Bachelor of Arts with a major in music must meet the following requirements.

1. Hours required and general/college requirements: Completion of 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 "General University Requirements" in the Academics section of this catalog and the College of Music requirements.
2. Major requirements: Major of 51 hours in music, depending on the program. See specific degree for exact hours.
3. Other course requirements: See individual major.
4. Minor: Optional.
5. Electives: See individual major.
6. Other requirements:

O Theory Proficiency Examination.
0 Piano Proficiency Examination.
0 Computer Proficiency Examination.
O Successful completion of Upper Division Examination in applied lessons (MUAC).

## General academic requirements

- Completion of University Core Curriculum (42 hours). See "University Core Curriculum Requirements" in the Academics section of this catalog. Some courses required on degree plans may be used to fulfill requirements under the Creative Arts, Life and Physical Sciences, Discovery and Capstone categories of the core.
- For the emphasis in music history and literature, students must complete all music history credits with no grade lower than B.


# College of Public Affairs and Community Service 

Main Office<br>Chilton Hall, Room 209<br>Mailing address:<br>1155 Union Circle \#311340<br>Denton, TX 76203-5017<br>940-565-2239<br>Fax: 940-565-4663<br>Web site: www.pacs.unt.edu<br>Office of Student Services<br>Chilton Hall, Room 289<br>Mailing address:<br>1155 Union Circle \#305248<br>Denton, TX 76203-5017<br>940-565-4664<br>Fax: 940-565-2352<br>\section*{Tom Evenson, Dean}

## Nicole Dash, Associate Dean

The College of Public Affairs and Community Service is composed of six academic departments and several centers and community-based programs. Undergraduate and graduate degree programs focus primarily on applied behavioral and professional disciplines. Degree programs are designed to integrate theory and practice and include a strong emphasis on student participation in the Dallas-Fort Worth region and beyond. The college offers programs leading to the Bachelor of Applied Arts and Sciences, Bachelor of Arts, Bachelor of Science, Bachelor of Social Work, Master of Arts, Master of Science, Master of Public Administration, Doctor of Audiology and Doctor of Philosophy degrees. Further information on graduate degrees is available in the Graduate Catalog.

Fields of study include gerontology, audiology, behavior analysis, criminal justice, emergency administration and planning, public administration, rehabilitation, social work, speech-language pathology, nonprofit studies and alternative dispute resolution.

Degree programs in the College of Public Affairs and Community Service require specific courses contained in parts of the University Core Curriculum (see "University Core Curriculum Requirements" in the Academics section of this catalog) to satisfy particular 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 Community Service should contact the Office of Student Services regarding 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 Applied Arts and Sciences
- 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 Applied Arts and Sciences

## Degree requirements for the BAAS

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 Applied Arts and Sciences degree as specified in the "General University Requirements" in the Academics section of this catalog and the College of Public Affairs and Community Service requirements.
2. Major requirements: Completion of all requirements for the major as specified by the respective program.
3. Other course requirements: See individual program.
4. Minor requirements: No minor required.
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.

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.

## 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 Academics section of this catalog and the College of Public Affairs and Community Service 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 Academics section of this catalog and the College of Public Affairs and Community Service 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 Academics section of this catalog and the College of Public Affairs and Community Service 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.

## Minors

## Applied Gerontology minor

Undergraduate students majoring in such compatible fields as social and behavioral sciences, merchandising and hospitality management, recreation or business may develop a multidisciplinary minor (18 semester hours) in applied gerontology in consultation with an advisor.

## Required courses

- AGER 3480 - Psychology of Adult Development and Aging
- AGER 4550 - Sociology of Aging
- AGER 4780 - Aging Programs and Services


## Undergraduate Academic Certificates

## Applied Gerontology certificate

An undergraduate academic certificate in applied gerontology requires 12 hours.

## Required courses, 12 hours

- AGER 4500 - Long-Term Care Case Management with Older Adults
- AGER 4550 - Sociology of Aging
- AGER 4750-Sexuality and Aging
- AGER 4780 - Aging Programs and Services


## Eligibility requirements

In order to qualify for the certificate in applied gerontology, a student must meet the following eligibility requirements. Contact the College of Public Affairs and Community Service advising office for more information.

1. Applicant must have completed two years of college.
2. Applicant must be accepted to UNT through Undergraduate Admissions.

## Requirements

## College of PACS Degree Requirements

## 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 Applied Arts and Sciences

## Degree requirements for the BAAS

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 Applied Arts and Sciences degree as specified in the "General University Requirements" in the Academics section of this catalog and the College of Public Affairs and Community Service requirements.
2. Major requirements: Completion of all requirements for the major as specified by the respective program.
3. Other course requirements: See individual program.
4. Minor requirements: No minor required.
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.

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.

## 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 Academics section of this catalog and the College of Public Affairs and Community Service 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 Academics section of this catalog and the College of Public Affairs and Community Service 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 Academics section of this catalog and the College of Public Affairs and Community Service 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.

# Department of Audiology and Speech-Language Pathology 

Main Departmental Office<br>907 W. Sycamore<br>Mailing address:<br>1155 Union Circle \#305010<br>Denton, TX 76203-5017<br>940-565-2481<br>Fax: 940-565-4058<br>Web site: speechandhearing.unt.edu

## Ernest J. Moore, Chair

## Faculty

Speech and hearing sciences is a discipline that emphasizes the scientific study of human auditory-verbal communication with reference to disorders involving speech, language and hearing. 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 speech, language and hearing 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 undergraduate program is designed for persons wishing to pursue graduate study in speech-language pathology and audiology and offers an avenue for students interested in pursuing other health professions, teaching, psychology, medicine, gerontology, etc. 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). A doctoral degree in audiology is required for licensure in Texas and for clinical certification by ASHA.

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, language, voice and fluency. Services also include hearing testing, fitting for hearing aids and hearing protection devices, and aural rehabilitation for persons with impaired hearing.

Services are free to enrolled students, but fees for services are charged to faculty, staff and their families. A limited number of fee waivers are available.

## Majors

## Speech-Language PathologylAudiology, BS

A Bachelor of Science with a major in speech-language pathology/audiology gives you the skills needed to assess and treat people with speech, language and hearing disorders, through a curriculum centered around practical experience.

The department offers the Bachelor of Science degree with a major in speech-language pathology/audiology.

## 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.
## Major requirements, 39 hours

Completion of at least 39 hours including:

- SPHS 2015 - Nature of Communication Disorders *
- SPHS 2020 - Phonetics *
- $\quad$ SPHS 3010 - Clinical Methods in Speech-Language Pathology and Audiology
- SPHS 3025-Anatomical Bases of Speech and Hearing
- SPHS 3030-Speech and Hearing Sciences
- SPHS 3035 - Normal Speech and Language Development
- SPHS 3040 - Introduction to Audiology
- SPHS 4035 - Introduction to Disorders of Articulation and Phonology
- SPHS 4040 - Introduction to Language Disorders
- SPHS 4045 - Basic Rehabilitative Audiology
- SPHS 4050 - Neurological Bases of Speech and Hearing
- SPHS 4060 - Clinical Practicum in Speech-Language Pathology and Audiology, Level I
- SPHS 4065 - Clinical Practicum in Speech-Language Pathology/Audiology II
* Must be completed with a grade of C or better before enrolling in SPHS 3030 and subsequent courses and may only be retaken once.


## Other course requirements

The following courses must be completed with a grade of C or better before enrolling in SPHS 3030 and subsequent courses and may only be retaken once.

- MATH 1680 - Elementary Probability and Statistics
or
- MATH 1681 - Elementary Probability and Statistics with Algebra Review
- BIOL 1112 - Contemporary Biology
- PHYS 1270 - Science and Technology of Musical Sound
or
- PHYS 1315 - Introduction to the World of Physics


## Additional requirements

## Laboratory science, 3-4 hours in addition to the University Core Curriculum

Choose one from the following:

- BIOL 2301 - Human Anatomy and Physiology I and
- BIOL 2311 - Human Anatomy and Physiology I Laboratory or
- BIOL 3350 - Human Heredity and
- BIOL 3360 - Heredity Lab or
- CHEM 1360-Context of Chemistry


## 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 (American Sign Language, Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Latin, Portuguese, Russian or Spanish).

## 18 additional hours

Students majoring in audiology and speech-language pathology are required to complete 18 hours outside of the department. Students may elect one of the following:
a. A minor of at least 18 hours, including at least 6 advanced hours;
b. 18 hours, including 9 advanced, selected from two or more departments outside the Department of Speech and Hearing Sciences (selected in consultation with the student's faculty advisor); or
c. Choose one of the following interdisciplinary specializations totaling 18 hours:

## Global disorders

- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- EDSP 3210 - Educational Aspects of Exceptional Learners
- PSYC 3620 - Developmental Psychology
- PSYC 4620 - Abnormal Child Psychology
- RHAB 3100 - Disability and Society
- RHAB 3200 - Physical and Psychosocial Aspects of Disability I


## Child

- BEHV 2300-Behavior Principles I
- HDFS 2033 - Parenting in Diverse Families
- HDFS 3123 - Child Development
- PSYC 3620 - Developmental Psychology
- PSYC 4620 - Abnormal Child Psychology
- RHAB 3000-Microcounseling

Adult

- ANTH 4200 - Health, Healing and Culture: Medical Anthropology
- PSYC 3480 - Adult Development and Aging
- RHAB 3000 - Microcounseling
- RHAB 3100 - Disability and Society
- SOCI 1510 - Introduction to Sociology
- SOCI 4550 - Sociology of Aging


## Lifespan

- AGER 2000-Global Aging and Individual Aging
- HDFS 3113 - Infant and Toddler Development
- HDFS 3123 - Child Development
- HDFS 4133 - Adolescent Development
- SOCI 1510 - Introduction to Sociology
- SOCI 4550 - Sociology of Aging


## Minor

See "Additional Requirements" above.

## 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 Community Service.

## Other requirements

Major should be declared and degree audit prepared with the Audiology and Speech-Language Pathology Undergraduate Director.
To graduate with a major in speech-language pathology/audiology, a student must:

- Maintain a GPA of 2.5 in the major.
- Earn a grade of C or better on all SPHS courses. Students earning less than a C in any one of the SPHS courses will be allowed to retake that course only once.


## Minors

## Speech and Hearing Sciences 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 speech and hearing sciences.

## Courses

- $\quad$ SPHS 2015 - Nature of Communication Disorders
- SPHS 2020 - Phonetics
- SPHS 3010 - Clinical Methods in Speech-Language Pathology and Audiology
- SPHS 3025 - Anatomical Bases of Speech and Hearing
- SPHS 3030 - Speech and Hearing Sciences
- SPHS 3035 - Normal Speech and Language Development
- SPHS 3040 - Introduction to Audiology
- SPHS 4035 - Introduction to Disorders of Articulation and Phonology
- SPHS 4040 - Introduction to Language Disorders
- SPHS 4045 - Basic Rehabilitative Audiology
- SPHS 4050 - Neurological Bases of Speech and Hearing


# Department of Behavior Analysis 

Main Office<br>Chilton Hall, Room 360<br>Mailing address:<br>1155 Union Circle \#310919<br>Denton, TX 76203-5017<br>940-565-2274<br>Fax: 940-565-2467<br>Web site: Www.pacs.unt.edu/behavior-analysis/

## Jesus Rosales-Ruiz, 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 BA in Applied Behavioral 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 with projects and research.

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 Academics section of this catalog and the College of Public Affairs and Community Service requirements.

## Major requirements

- BEHV 2300 - Behavior Principles I
- BEHV 2700 - Behavior Principles II
- BEHV 3440-Data Collection and Analysis
- BEHV 3550-Behavior Change Techniques
- BEHV 3660 - Survey of Applied Behavior Analysis Literature
- BEHV 3770-Building Skills with Behavior Technology
- BEHV 4010 - Functional Analysis and Problem Behavior
- BEHV 4310 - Behavior Principles and Self-Management
- BEHV 4400-Organizational Behavior Management
- BEHV 4750-Capstone Course in Applied Behavior Analysis


## 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, aging, anthropology, biological sciences, business foundations, chemistry, computer science, criminal justice, emergency administration, health promotion, library and information sciences, rehabilitation and sociology.

## Other course requirements

None.

## Electives

Sufficient electives to satisfy the advanced hour requirement and/or the minimum total hours (120) for the degree.

## Other requirements

- Minimum GPA of 2.7 in behavior analysis courses.
- At least 30 hours must be completed at UNT.


## 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 - Behavior Principles I
- BEHV 2700 - Behavior Principles II
- BEHV 3440 - Data Collection and Analysis


## Additional requirements

# Department of Community and Professional Programs 

Main Office<br>Chilton Hall, Room 263<br>Mailing address:<br>1155 Union Circle \#305370<br>Denton, TX 76203-5017<br>940-565-3437<br>Web site: pacs.unt.edu/capp<br>\section*{Brenda McCoy, Chair}

## Faculty

The Department of Community and Professional Programs offers four fields of study that share a focus on building professional skills as well as working to promote the social good. Undergraduate degrees are offered in social work and applied arts and sciences (BAAS). The BAAS is a multidisciplinary degree program specifically designed for transfer students. Minors and certificate programs are also offered in alternative dispute resolution (ADR) and in nonprofit studies.

The disciplines administered by the Department of Community and Professional Programs are designed to prepare students for professional careers in a variety of fields including business, state and local government, nonprofit management, or for graduate school. Social work graduates are eligible to take the examination for licensure as a social worker by the State of Texas and are qualified for employment in a variety of human service settings, including mental health centers, hospitals, hospice, youth and children's services, aging programs, criminal justice, and organizations that deal with poverty and issues of social and economic justice.

## Applied Arts and Sciences (BAAS)

The Bachelor of Applied Arts and Sciences (BAAS) is a multidisciplinary degree program that is specifically designed for students transferring to UNT with occupationally-specific credits earned at a community college or technical institution. Veterans or active duty service members may also receive college credit for specialized military training.

## Social Work (BSW)

The Bachelor of Social Work (BSW) degree prepares students for entry-level practice with special populations including the poor, those who are oppressed, and other at-risk groups. It is fully accredited by the Council on Social Work Education. Students begin the program as pre-social work majors and may apply for acceptance to take the major after completion of specified prerequisites.

## 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 (1725 Duke Street, Suite 500, Alexandria, VA 22314-3457; 703-683-8080, ext. 205).

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 Community Service 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 in the department office. 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)
- SOCI 1520 - Contemporary Social Problems


## Majors

## Applied Arts and Sciences, BAAS

This 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 or from an Associate of Applied Science degree. It may also facilitate graduation for students who are returning to college after spending time in the workplace. Interested students should contact the Department of Community and Professional Programs or the Advising Office in the College of Public Affairs and Community Service.

## Degree requirements for the BAAS

1. 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 "General University Requirements" in the Academics section of this catalog and the College of Public Affairs and Community Service requirements.
2. Major requirements:

Occupational specialization, 21 Hours:
Comprised of courses related to a specific occupation, field or subject. The occupational specialization typically consists of fieldspecific 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 specialization through courses taken in a community college or in the military may create one by selecting a primary area of study.
Professional foundations, 9 Hours: Specific courses from the College of Public Affairs and Community Service approved by the BAAS program director that teach students to sharpen their ability to communicate, negotiate, analyze information and network effectively. A minimum 2.0 grade point average is required for the professional foundations component. Students must earn a C or better in each of the courses in this component to receive credit toward the degree.

## Professional development concentrations, $\mathbf{3 6}$ Hours:

Consists of two or three separate multidisciplinary concentrations, developed in collaboration between the BAAS program and the 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 complimentary to the student's career plans.
3. Minor requirements: None required.
4. 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 36 hours of advanced-level course work.
5. 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.

## 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 (1725 Duke Street, Suite 500, Alexandria, VA 22314-3457; 703-683-8080, ext. 205).

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 Community Service 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 in the department office. 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-credithour 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)
- SOCI 1520-Contemporary Social Problems


## 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 Academics section of this catalog and the College of Public Affairs and Community Service requirements.

## Major requirements

The social work major consists of 55 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; SOCI 1520)
- Obtain a degree audit from the College of Public Affairs and Community Service advising office
- Obtain 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 3800-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 4500 - Human Behavior and the Social Environment II
- SOWK 4800 - Social Work Practice II
- SOWK 4880 - Quantitative Methods of Social Research

Third semester after admission to the major (senior year)

- RHAB 3975 - Addictions
- SOWK 4430 - Applied Social Welfare Policy
- SOWK 4810 - 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


## Minor

None required.

## Electives

Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours (120) required for the degree.

## 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 2.25 GPA;
- 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.


## Minors

## Four required courses

- COMM 3320-Communication and Conflict Management
- PACS 4000 - Mediation
- PACS 4050 - Negotiation and Dispute Resolution
- PACS 4060 - Practicum in Mediation and Dispute Resolution


## Plus three courses from the following list

Chosen in consultation with an undergraduate advisor in the ADR program and representing at least two different academic departments:

- BLAW 3430-Legal and Ethical Environment of Business
- CJUS 3210-Judicial and Legal Systems
- MGMT 3870-Management Research Methods
- PACS 4010 - Family Mediation
- PACS 4020 - Dispute Resolution in the Workplace
- PACS 4030 - Dispute Resolution in a Global Workplace
- PACS 4040-Crisis Intervention
- PACS 4070 - Arbitration Basics
- PSYC 3640 - Marital Adjustment

Students interested in this minor should contact Leslie Roberts in the Department of Community and Professional Programs.

## Leadership of Community and Nonprofit Organizations minor

A minor in leadership of community and nonprofit organizations (LCNO) 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 LCNO should consult the LCNO academic advisor for specific program requirements.

## Required courses, 6 hours

- PACS 4200 - Leadership Theory and Practice for Volunteer Managers **
- PACS 4300 - Nonprofit Leadership Capstone


## Field courses, 12 hours

The remaining 12 hours are chosen from the following fields, with at least three different fields represented.

## Historical/philosophical foundations

- PACS 3000 - Pathways to Civic Engagement
- PACS 4200 - Leadership Theory and Practice for Volunteer Managers *
- PACS 4230 - Social Evolution of Contemporary Volunteerism **


## Nonprofit public relations/fundraising

- JOUR 3410 - Public Relations for Non-Profits
- PACS 4210 - Introduction to Philanthropy and Fundraising
- PACS 4220 - Proposal Writing and Grants Administration


## General nonprofit management

- PACS 4250 - Community Resource Mapping and Collaboration **
- PACS 4300 - Nonprofit Leadership Capstone *
- PADM 3700 - Issues in Public Administration


## Volunteer management

- PACS 4240 - Volunteer Management Concepts and Applications **
- PACS 4260 - Volunteer Program Planning and Evaluation **
- PACS 4610 - Topics in Community Service


## Experiential learning in a global society

- PACS 4310 - Community Service Internship
- SOWK 4890 - Topics in Social Welfare


## Notes

* Students pursuing the leadership of community and nonprofit organizations minor must take these courses.
**Students pursuing the 12 semester credit hour certificate in volunteer and community resource management must take PACS 4240, PACS 4250 and PACS 4260, in addition to PACS 4200.


## Undergraduate Academic Certificates

## Alternative Dispute Resolution certificate

A certificate in alternative dispute resolution requires a total of 12 hours.

## Required courses, 9 hours

- PACS 4000 - Mediation
- PACS 4050 - Negotiation and Dispute Resolution
- PACS 4060 - Practicum in Mediation and Dispute Resolution


## Elective course, 3 hours

3 hours chosen from the following:

- PACS 4010 - Family Mediation
- PACS 4020 - Dispute Resolution in the Workplace
- PACS 4030 - Dispute Resolution in a Global Workplace
- PACS 4040-Crisis Intervention
- PACS 4070 - Arbitration Basics


## 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 at Trey.Anderson@unt.edu.

Students should apply to receive the certificate 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 Community Service Advising Office in Chilton Hall, Room 289. Applications are first reviewed by the Advising Office and then submitted to the Registrar's Office for processing.

## Required courses, 9 hours

- PACS 4240 - Volunteer Management Concepts and Applications
- PACS 4250 - Community Resource Mapping and Collaboration
- PACS 4260 - Volunteer Program Planning and Evaluation


## Elective course, 3 hours

3 hours chosen from:

- PACS 4200 - Leadership Theory and Practice for Volunteer Managers
- PACS 4230-Social Evolution of Contemporary Volunteerism


## Department of Criminal Justice

Main Office<br>Chilton Hall, Room 265<br>Mailing address:<br>1155 Union Circle \#305130<br>Denton, TX 76203-5017<br>940-565-2562<br>Fax: 940-565-2548<br>Web site: www.pacs.unt.edu/criminal-justice

## Eric J. Fritsch, 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 and procedure, 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 Academics section of this catalog and the College of Public Affairs and Community Service requirements.

## Major requirements

48 hours, including 42 hours in criminal justice:

- CJUS 2100-Crime and Justice in the United States
- CJUS 2600 - Diversity Issues in Criminal Justice
- CJUS 3201 - Criminal Law
- CJUS 3300 - Police Systems
- CJUS 3400 - Correctional Systems
- CJUS 3600-Criminology
- CJUS 3700 - Ethical Issues in Criminal Justice
- CJUS 4700 - Research Methods in Criminal Justice
- CJUS 4901 - Senior Seminar: Criminal Justice and Public Policy
- 15 hours of advanced criminal justice elective courses (which may be used to customize an area of interest)


## Supporting courses, 6 hours

- SOCI 1510 - Introduction to Sociology
- PSYC 1630-General Psychology I


## Other course requirements

- TECM 2700-Technical Writing (or its equivalent) (may not be used in place of ENGL 1320)

Communication skills, 3 hours from

One of the following courses (or their equivalents).

- COMM 1010-Introduction to Communication
- COMM 2020 - Interpersonal Communication
- COMM 2040 - Public Speaking
- COMM 2140 - Advocating in Public


## Minor

None required

## Electives

18-27 hours (i.e., the number of elective hours needed to fulfill the degree requirement of 120 hours)

## 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.

## Grad Track Options

## Criminal Justice, BS with grad track option leading to Criminal Justice, MS

The Department of Criminal Justice offers a grad track option for existing UNT undergraduate students majoring in criminal justice. In this grad track option, students can take up to 6 hours in the first semester of their senior year and up to 6 hours in the second semester of their senior year.

## Admission requirements

All criminal justice faculty will work to identify exceptional students in the undergraduate program. The graduate committee in the department will ultimately decide which students will be invited to apply for the pathway. Students who are invited must complete all the application requirements and processes required of all students who apply to the Master of Science with a major in criminal justice.

## Program requirements

- CJUS 5000 - Criminal Justice Policy (corresponds with CJUS 4901 - Senior Seminar: Criminal Justice and Public Policy)
- CJUS 5700 - Evaluation and Research Methodologies (corresponds with CJUS 4700 - Research Methods in Criminal Justice)
- CJUS 5500 - Seminar in Criminal Justice Administration (corresponds with CJUS 4500 - Administration of Criminal Justice Agencies)
- CJUS 5200 - Legal Aspects of the Criminal Justice System (corresponds with CJUS 4200 - Criminal Procedure)
- CJUS 5620 - Seminar in Victimology (corresponds with CJUS 4650 - Victimology)
- CJUS 5900 - Special Problems (corresponds with CJUS 4900 - Special Problems)

For the remainder of the bachelor's degree requirements, please see Criminal Justice, BS.

## Minors

## Criminal Justice minor

A minor in criminal justice requires completion of 18 semester hours.

## Required courses

- CJUS 2100 - Crime and Justice in the United States
- CJUS 3201 - Criminal Law
- CJUS 3600 - Criminology


## Plus 9 hours

Nine additional hours of criminal justice courses

## Undergraduate Academic Certificates

## Criminalistics certificate


#### Abstract

Criminalistics involves the documentation, identification, collection, preservation and analysis of items of physical evidence such as firearms, ammunition components, blood spatter patterns, footwear and tire track impression evidence, fingerprints, hairs and fibers and trace evidence found at crime scenes. The goal of criminalistics is to positively place the guilty at the crime scene using physical evidence. The criminalistics certificate program at UNT is an 18-hour program in which students learn how to document, identify, collect and preserve items of physical evidence. Additionally, students are taught what the capabilities and limitations are of criminalistics laboratories that are ultimately responsible for analyzing the physical evidence brought to them by crime scene investigators.


The criminalistics certificate program is specifically designed for students who are interested in field investigations (crime scene investigations), detectives, and police officers. Others who can potentially benefit from the program include future lab examiners, prosecutors, criminal defense attorneys, journalists, emergency response technicians, firefighters, emergency room hospital staff and physicians.

## Required courses, 12 hours

- CJUS 3110 - Survey of Forensic Investigations
- CJUS 3330 - Introduction to Criminalistics
- CJUS 4390 - Crime Scene Investigation Theory
- CJUS 4370 - Advanced Criminalistics I
or
- CJUS 4380 - Advanced Criminalistics II


## Elective courses, 6 hours

Chosen from the following:

- BIOL 3331 - Biomedical Criminalistics
- CJUS 3340 - Computer Crime
- CJUS 4360 - Criminal Investigation
- CJUS 4370 - Advanced Criminalistics I
- CJUS 4380 - Advanced Criminalistics II
- CJUS 4860 - Studies in Criminal Justice


## Department of Disability and Addiction Rehabilitation

Main Office
Chilton Hall, Room 218

Mailing address:
1155 Union Circle \#311456
Denton, TX 76203-5017
940-565-2488
Fax: 940-565-3960

Web site: www.unt.edu/dar

## Linda Holloway, Chair

Brandi Darensbourg, Director of Undergraduate Rehabilitation Program

## Faculty

The Department of Disability and Addiction Rehabilitation offers an undergraduate program in rehabilitation studies. Currently, our program is one of ten undergraduate programs in the United States fully accredited by the Council on Rehabilitation Education. In addition to the BS with a major in rehabilitation studies, the department offers a certificate and a minor in rehabilitation studies, as well as a minor in addiction studies and a certificate in substance use treatment that prepare students 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 non-profit, governmental, and for-profit programs serving individuals with mental health concerns, substance use disorders, intellectual 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.

The department's undergraduate programs are structured to meet the needs and interests of students transferring from community colleges. The 30-hour major is designed to allow students the opportunity to carefully select complimentary electives or to specialize in specific areas of rehabilitation such as substance use treatment. Our professional advisor 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 articulation and maximize their credits.

Extensive practical experience in community placements is combined with comprehensive classroom curricula to build an in-depth and wellrounded program. A low faculty/student ratio allows students 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. To this end, we have three active student organizations - North Texas Rehabilitation Association, Active Minds, and Eagle Peer Recovery - that students can participate in during their academic career.

A College of Public Affairs and Community Service degree program advisor plays a significant role in the development of a degree plan that meets the individual student's needs and interests.

## Programs of study

The department offers an undergraduate major in rehabilitation studies; minors; and undergraduate academic certificates. (See the complete list, below.)

## 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 web site. Students interested in applying for these scholarships should contact the department.

## Majors

## Rehabilitation Studies, BS

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.

The Bachelor of Science with a major in rehabilitation studies is fully accredited by the Council on Rehabilitation Education (1699 Woodfield Road, Suite 300, Schaumburg, IL, 60173, 847-944-1345).

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 Academics section of this catalog and the College of Public Affairs and Community Service requirements.

## Major requirements

27 hours in rehabilitation studies:

- RHAB 3000-Microcounseling
- RHAB 3100 - Disability and Society
- RHAB 3200 - Physical and Psychosocial Aspects of Disability I
- RHAB 3400 - Physical and Psychosocial Aspects of Disability II
- RHAB 3900-Case Management in Rehabilitation
- RHAB 4100 - Rehabilitation Service Delivery Systems
- RHAB 4700 - Employment Services
- RHAB 4860 - Professionalism and Leadership
- RHAB 4880-Rehabilitation Practicum


## Plus an addictions course, 3 hours

RHAB 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

Electives may be required to satisfy the advanced hour requirement and/or the minimum total hours (120) required for the degree.

## Other requirements

- Demonstration of at least 400 hours of field work and a minimum overall grade point average of 2.3 is required for graduation

Students interested in majoring in rehabilitation studies should complete an application and make an appointment with the rehabilitation studies academic advisor for an initial interview. The advisor will provide information about the program and its appropriateness for that student. Upon admission into the program, the student is assigned an academic advisor. The student works with that advisor in the development of a degree plan and throughout the academic program until graduation.

## Grad Track Options

## Rehabilitation Studies, BS with grad track option leading to Rehabilitation Counseling, MS

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 a description of their own career goals and how the graduate program will facilitate their achievement of those goals;
- 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:
4. academic/intellectual merit (e.g., assessment of GPA, quality of letters of recommendation, quality of written self-statement);
5. 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
6. 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 a meeting attended by all faculty members 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 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 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 - Introduction to Rehabilitation Counseling (for RHAB 4100 Rehabilitation Service Delivery Systems)

RHAB 5730 - Medical and Psychosocial Aspects of Disability (for RHAB 3200 - Physical and Psychosocial Aspects of Disability I)

RHAB 5732 - Principles of Psychiatric Rehabilitation (for RHAB 4300 Introduction to Psychiatric Rehabilitation)
RHAB 5125 - Alcohol and Other Drug Abuse Counseling Models (for RHAB 4275 Alcohol, Drugs and Disability)

## Minors

## Addiction Studies minor

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.

## Required courses

- RHAB 3975-Addictions
or
- RHAB 4075 - Drugs and Alcohol and
- RHAB 4175 - Addiction Treatment Models


## Plus four of the following

- RHAB 4275 - Alcohol, Drugs and Disability
- RHAB 4375 - Addiction Counseling and Groups
- RHAB 4475 - Assessment of Alcoholism and Chemical Dependency
- RHAB 4575-Current Issues in Substance Use Disorders
- RHAB 4675 - Alcohol and Drug Abuse Competencies


## Licensure

Students seeking licensure are strongly advised to take:

- RHAB 4375 - Addiction Counseling and Groups
- RHAB 4475 - Assessment of Alcoholism and Chemical Dependency
- RHAB 4675 - Alcohol and Drug Abuse Competencies


## 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 - Microcounseling
- SOWK 1450 - Introduction to Social Work


## Plus four courses selected from

- RHAB 3100 - Disability and Society
- RHAB 3200 - Physical and Psychosocial Aspects of Disability I
- RHAB 3400 - Physical and Psychosocial Aspects of Disability II
- RHAB 3900-Case Management in Rehabilitation
- RHAB 4075 - Drugs and Alcohol
- RHAB 4100 - Rehabilitation Service Delivery Systems
- RHAB 4275 - Alcohol, Drugs and 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.

## Rehabilitation Studies minor

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 3200 - Physical and Psychosocial Aspects of Disability I
- 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.

Courses are available both on campus and online.

## Required courses

Students must complete four courses, including:

- RHAB 3100 - Disability and Society
- RHAB 3200 - Physical and Psychosocial Aspects of Disability I
- RHAB 3900-Case Management in Rehabilitation
- RHAB 4700 - Employment Services


## Substance Use Disorders Treatment certificate

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 $\S 140.405$, visit www.dshs.state.tx.us/lcdc and navigate to "Rules and Regulations"). Completion of the certificate also contributes to skills applicable in any human service field.

## Required courses

- RHAB 4075 - Drugs and Alcohol
- RHAB 4175 - Addiction Treatment Models
- RHAB 4475 - Assessment of Alcoholism and Chemical Dependency
- RHAB 4675 - Alcohol and Drug Abuse Competencies


## Department of Public Administration

Public Administration Departmental Office
Chilton Hall, Room 204
Mailing address:
1155 Union Circle \#310617
Denton, TX 76203-5017
940-565-2165
Fax: 940-565-4466
Web site: www.padm.unt.edu
Emergency Administration and Planning Program Office
Chilton Hall, Room 204
Mailing address:
1155 Union Circle \#310617
Denton, TX 76203-5017
$940-565-3292$
Fax: 940-565-4466
Web site: www.padm.unt.edu/eadp
Abraham David Benavides, Chair
Faculty
Programs of Study

The Department of Public Administration offers graduate programs leading to a PhD and Master of Public Administration and BS with a major in emergency administration and planning. 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. 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 who wish to select public administration as an area of concentration may choose one of three options: a major in emergency administration and planning with a minor in public administration, a major in applied arts and sciences with public administration as one of the professional development areas, or a minor in public administration. 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.

## Emergency Administration and Planning

Web site: www.padm.unt.edu/eadp

The Bachelor of Science with a major in emergency administration and planning (EADP) provides theoretical education and technical training for individuals interested in helping governments and businesses to mitigate, prepare for, respond to, and recover from natural disasters and other types of mass emergencies. Established in 1983, the EADP program at the University of North Texas was the first of its kind in the United States.

The EADP program prepares students for careers in emergency management and related fields in the public, private and non-profit sectors. Job titles include local and state emergency coordinators, Federal Emergency Management Agency program analysts, business continuity specialists, hospital disaster planners, and Red Cross emergency service directors.

The program also offers a minor in emergency administration and planning.

Courses in EADP are typically offered in the late afternoon and evenings to allow flexibility for those students who simultaneously work and pursue their education. Students not currently employed in the emergency management field are required to participate in an internship with a relevant agency or organization in order to gain experience in preparation for a career in this growing profession.

## Majors

## Emergency Administration and Planning, BS

A Bachelor of Science with a major in emergency administration and planning helps you develop valuable skills in disaster planning, interpersonal communication and leadership, all of which are skills essential to providing professional leadership in educating communities on strategies to prepare for and alleviate natural, technological and other 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 Academics section of this catalog and the College of Public Affairs and Community Service requirements: 42 hours in the university core, 48 hours in the major, 18 hours for the required minor, plus electives to total 120 required semester hours.

## Major requirements

Required courses for all EADP students are:

- EADP 3010 - Introduction to Emergency Management
- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 3045 - Disaster Response and Recovery
- EADP 3055-EOC Design and Operations
- EADP 3080 - Leadership and Organizational Behavior
- EADP 4080 - Capstone Course in Emergency Management
- PADM 3410-Financial Aspects of Government


## The remaining hours for the major may be selected from

- 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 - The Federal Government and Disasters
- EADP 4030 - Private Sector Issues
- EADP 4040 - International Disasters
- EADP 4050-Special Populations and Disasters
- EADP 4060 - Technology in Emergency Management
- EADP 4065 - Disaster Exercise Design
- EADP 4090 - Terrorism and Emergency Management
- PADM 3000 - Public Administration
- PADM 3700 - Issues in Public Administration
- PADM 4130 - American Intergovernmental Relations
- PADM 4450 - Public Policy Analysis
- BIOL 3160 - Conservation Biology
- GEOG 2180-Geosystems, Environment and Society
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4050 - Cartography and Graphics
- GEOG 4120 - Medical Geography
- GEOG 4170 - Mapping and Field Methods
- GEOG 4240 - Meteorology
- GEOG 4400 - Introduction to Remote Sensing
- MGMT 4180 - Workplace Health and Safety
- PACS 3000 - Pathways to Civic Engagement
- PACS 4210 - Introduction to Philanthropy and Fundraising
- PACS 4220 - Proposal Writing and Grants Administration
- PACS 4230 - Social Evolution of Contemporary Volunteerism
- PACS 4240 - Volunteer Management Concepts and Applications
- PACS 4250 - Community Resource Mapping and Collaboration
- PACS 4260 - Volunteer Program Planning and Evaluation
- RMIN 4600 - Risk Management
- SOCI 3550 - Collective Behavior
- SOCI 3560 - Sociology of Disasters


## 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
- GEOL 1610 - Introductory Physical Geology
- GEOG 1710 - Earth Science


## 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.

## Minor requirements

A minor of at least 18 hours; 6 must be advanced.

## Electives

At least 15 hours. Courses may be selected from any offered at UNT that the student and the advisor deem appropriate to the degree.

## 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.


## 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

- EADP 3010 - Introduction to Emergency Management
- 15 additional hours, 9 of which must be selected from a list of selected EADP courses


## Selected EADP courses

- EADP 3035 - Hazard Mitigation and Preparedness
- EADP 3045 - Disaster Response and Recovery
- EADP 3080 - Leadership and Organizational Behavior
- PADM 3410 - Financial Aspects of Government


## Note

The remaining 6 hours may be chosen from any EADP-prefix course (except EADP 4080, EADP 4800 and EADP 4810).

## Public Administration minor

A minor in public administration requires 18 hours, 9 of which must be at the upper-division level. Up to 6 hours of the minor may be in emergency administration and planning.

## Required

- PADM 3000 - Public Administration
- PADM 3020-Public Management


## Plus 12 hours

Plus 12 hours, at least 3 of which must be at the upper-division level.

# College of Visual Arts and Design 

Main Office<br>Art Building, Room 107<br>Mailing address:<br>1155 Union Circle \#305100<br>Denton, TX 76203-5017<br>940-565-2855<br>Fax: 940-565-4717<br>Web site: www.art.unt.edu<br>Student Services Office<br>Art Building, Room 111<br>940-565-2216<br>\section*{Greg Watts, Dean}

Eric Ligon, Associate Dean for Administrative Affairs Denise Amy Baxter, Associate Dean for Academic Affairs

The College of Visual Arts and Design is a faculty of artists, designers and scholars engaged in the integrated activities of teaching and research. Faculty in the college believe a high level of professional activity not only enhances teaching, but also provides students with models upon which to pattern their own careers. Building on a traditional arts foundation, the faculty prize innovation in their work and in that of their students. The college's size, numerous programs and location in the Dallas-Fort Worth region create multiple opportunities for students to grow in their own disciplines. Because the students have varied socioeconomic backgrounds, their interactions create an atmosphere of heightened artistic initiative and independence.

Instruction is offered for students seeking a cultural foundation in art, but the curriculum focuses primarily on professional programs for those majoring and minoring in various art fields.

The College of Visual Arts and Design is accredited by the National Association of Schools of Art and Design (11250 Roger Bacon Drive, Suite 21, Reston, VA, 20190; 703-437-0700).

## Mission

To engage our diverse student population with issues of artistic heritage, to stimulate their imagination and involvement with the world, to foster their critical and analytical thinking, and to inspire their creativity through educational opportunities in art education, art history, design, and studio arts, supported by a vital program of creative research.

## Goals

Access: To provide undergraduate and graduate students, many of whom are first generation college students, access to outstanding programs.

Pursuit of excellence: To recruit and retain highly qualified students, to develop student potential, and to manage selective degree programs at the undergraduate and graduate levels, providing a high quality environment that prepares students to become leading professionals in their fields.

Service to the region and the world: To provide programming and access to resources in collaboration with educational, governmental, and cultural agencies, reflecting our role as part of a multi-campus university system integrated into the Dallas-Fort Worth-Denton region and networked world-wide.

Prominence: To ensure the prominence of our students, faculty, programs, and institutes regionally, nationally and internationally, and continue our role as leaders in visual arts education.

## Entering students

Entering students interested in majoring in the College of Visual Arts and Design will initially be advised by the office of Student Services. Admission to the university does not guarantee admission to the major. All students will be classified as pre-majors until they meet the criteria for their chosen major. For full details see an academic advisor in the Art building, Room 111.

## Admission requirements

Admission to the College of Visual Arts and Design

## Academic advising

Academic advisors are available to assist continuing, freshman and transfer students in the College of Visual Arts and Design Student Services Office, Art Building, Room 111. Advisors assist 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 art majors who are on probation must consult an advisor prior to registration.

## Transfer credits

A transferred course must be reviewed for approval in order to be substituted for a required art course. Transfer credits in art from other schools can be substituted for UNT degree requirements only when content of the two courses is the same. Art core courses (Art Appreciation, Design I, Design II, Drawing I, Drawing II, Art History Survey I and Art History Survey II) are transferable from most schools. The student should provide a transcript of all college work so the advisor may better assist the student with course selection. Transfer students' transcript evaluations are tentative, pending successful completion of a term/semester of work in art at UNT.

Transfer courses in the major area of art are evaluated by program faculty to be sure that students have acquired necessary competencies. It is the student's responsibility to provide the faculty advisor with a copy of the catalog that describes the content of any course to be transferred. Examples of work created in the class may also be required for evaluation of skill level. Faculty advisors are available by appointment when school is in session.

Students who transfer to UNT as art majors generally need at least three years at the university to complete degree requirements in sequence, regardless of the number of credit hours previously completed.

## Academic requirements

Art majors and art minors must take courses on the four class levels in sequence and 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 visual arts studies 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

Art History
ART 2350, ART 2360

| 6 hours |  |
| :--- | ---: |
| Art: Studio Art, Drawing Portfolio | ART 1500 |

3 hours
Art: Studio Art, 2D Design Portfolio
Art Elective

## 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 Associate Dean for Academic and Student Affairs, Art Building, Room 111, regarding the application of IB credit toward degree programs in the College of Visual Arts and Design. Students who wish to petition to substitute IB work for credit other than an art elective should be prepared to show a portfolio of work. Students should contact the department of their major.

## 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 Bachelor of Arts (BA) and Bachelor of Fine Arts (BFA). BA and BFA degree programs are offered through the following departments:

## Department of Art Education and Art History

- BA—Interdisciplinary Art and Design Studies, with concentrations in arts management and design management
- BA—Art History
- BFA—Visual Art Studies

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, fibers, 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 Student Services Office. These suggested plans may also be accessed through the College of Visual Arts and Design web site (www.art.unt.edu).

## 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 a degree audit when they reach the sophomore level of their chosen major. Some majors do their audits in classroom groups (defer to department chair for more specific information). Once the department submits the degree audit to the Student Services Office (Art Building, Room 111), the form will be processed, and the student will be notified via e-mail when it is available for pick up. Students may obtain an updated copy each term/semester from Student Services, Art Building, Room 111. Academic advisors are available by appointment to assist students with questions that may arise as they chart their progress.

## Major and minor

For requirements in the major and minor, students should consult "University Core Curriculum" in the Academics section and the appropriate department section of this catalog.

## College of Visual Arts and Design galleries

The University of North Texas Art Gallery, located in the Art Building, presents a broadly based exhibition program with emphasis on contemporary art. It functions as the communications intersection and training ground for future artists, designers and educators, and stimulates lively discourse on current issues in art.

The Cora Stafford Gallery, a 900-square-foot space located in Oak Street Hall, provides an experimental laboratory for student- and facultygenerated exhibitions as well as an alternative forum for installation work, small shows and other spontaneous programming.

## Scholarships

Art scholarships have been established through gifts from faculty, students, alumni and friends of the College of Visual Arts and Design. In addition to endowed scholarships, occasional annual scholarships are awarded. More than 70 art scholarships are awarded annually for a total of more than $\$ 80,000$.

Applicants for all scholarships in art must be enrolled as full-time undergraduate or graduate students in an art major at UNT. Additional criteria for each scholarship, application materials and deadlines are available through the Student Services Office, College of Visual Arts and Design, Art Building, Room 111.

## Requirements

## College of Visual Arts and Design Degree Requirements

## 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 Bachelor of Arts (BA) and Bachelor of Fine Arts (BFA). BA and BFA degree programs are offered through the following departments:

Department of Art Education and Art History

- BA—Interdisciplinary Art and Design Studies
- BA—Art History
- BFA—Visual Art Studies

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, fibers, metalsmithing and jewelry, new media art, photography, printmaking, and sculpture.

# Department of Art Education and Art History 

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Main Office
Art Building, Room 224
Mailing address:
1155 Union Circle #305100
Denton, TX 76203-5017
940-565-4777
Fax: 940-565-4717
E-mail: aeah@unt.edu
Web site: www.art.unt.edu
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## Mickey Abel, Chair

## Faculty

The Department of Art Education and Art History offers the BA degree with majors in art history and interdisciplinary art and design studies, and the BFA degree with a major in visual arts studies. The MA degree is offered with majors in art history and art education. The PhD is offered with a major in art education. Students interested in these degrees may contact the department chair.

## Mission/Vision Statement

The mission of the Department of Art Education and Art History in the College of Visual Arts and Design is to enhance students' understanding of contemporary and past visual art forms. The department is committed to excellence in teaching and research. Within and between its comprehensive degree-granting programs, the department provides students and faculty with the opportunity to examine global artistic production, relevant technologies, critical methods, learning theories, and innovative approaches to pedagogy and knowledge acquisition.

## Pre-majors

## Visual Arts Studies pre-major

## Visual Arts Studies admission and pre-major requirements

Entering students interested in majoring in the College of Visual Arts and Design are classified as pre-majors.
To be admitted to the visual arts studies major (and to be eligible to enroll in advanced art courses), a pre-major must meet all of the following requirements.

## Complete with a grade of C or better

- ART 1200 - Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II


## Complete two of the following with a grade of C or better

- ASTU 2200 - Beginning Figure Drawing
- ASTU 2300 - Introduction to Printmaking Techniques
- ASTU 2350 - Sculpture I
- ASTU 2210 - Painting I
or
- ASTU 2417 - Beginning Watercolor Painting


## Complete one of the following with a grade of C or better

- ASTU 2050-Beginning Ceramics
- ASTU 2130 - Introduction to Weaving
- ASTU 2150 - Metalsmithing and Jewelry I


## Portfolio review

Successfully complete portfolio review while enrolled in AEAH 3753.

## Minimum GPA of 2.75

## Passing scores on TASP/THEA

Or appropriate exemption.

## 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.

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 Academics 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 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- AEAH 4800-Methodologies in the History of Art and Visual Culture
- AEAH 4848 - Art History Senior Seminar
- 6 hours of studio art
- 6 hours of art elective
- Foreign language (preferably French or German) through the sophomore year (2040-2050)


## 21 hours of advanced art history courses

(Numbered 4801 through 4844) of which at least 9 hours must be taken from the following group:

- AEAH 4802 - Art of Ancient Greece
- AEAH 4803 - Art of Ancient Rome
- AEAH 4804-Medieval Art
- AEAH 4805-Topics in Medieval Art
- AEAH 4806 - Topics in Renaissance Art
- AEAH 4807 - Topics in Seventeenth-Century Art
- AEAH 4808 - Eighteenth-Century Art
- AEAH 4809 - Topics in Eighteenth-Century Art


## Note

Other AEAH advanced art history courses addressing art before the year 1800 may be substituted with the faculty advisor's permission. AEAH 4840 may not be taken for advanced art history credit.

## 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 111.

## 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.


## Interdisciplinary Art and Design Studies with a concentration in Arts Management, BA

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 Academics 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 1200-Art Appreciation
or
- ART 1300 - Art Appreciation for Non-Art Majors
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- AEAH 4899 - Interdisciplinary Arts and Design Studies Capstone


## Arts Management concentration

- AEAH 4614 - Art and Business
- AEAH 4812 - Modernism and the Visual Arts 1890-1945
- AEAH 4813 - Postmodernism and the Visual Arts 1945-Present
- AEAH 4814 - Theories of Contemporary Art
- AEAH 4940 - Understanding Art Museums
- ASTU 3030 - Computer Applications in the Visual Arts
- ASTU 4010 - Professional Practices for the Studio Artist
- an advanced art elective


## Plus 6 hours from

- ANTH 1150 - World Cultures Through Film
- or any 1000 - or 2000-level ART, ADES or ASTU course


## 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 111.

## Minor requirements

Students must choose from management or leadership of community and non-profit organizations.

## 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

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 Academics section of this catalog and the College of Visual Arts and Design requirements.

Major requirements

- ART 1200-Art Appreciation or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- AEAH 4899 - Interdisciplinary Arts and Design Studies Capstone


## Design Management concentration

- ADES 4660-Seminar in Design Management
- ADES 4662 - Design Management Integrative Capstone
- MGMT 3720-Organizational Behavior
- MGMT 3820 - Management Concepts
- MGMT 3850 - Foundations of Entrepreneurship
- MKTG 3650 - Foundations of Marketing Practice


## 3 hours from

- ADES 1540 - Foundations for Communication Design
- ASTU 3030 - Computer Applications in the Visual Arts


## 3 hours from

- ADES 1500 - Introduction to Communication Design
- ADES 1550 - Introduction to Fashion Design
- ADES 1625 - Introduction to Interior Design


## Menu hours requirement

The minimum number of menu hours required by this degree is 33 hours.

## Menu 1, 6 hours selected from

- ADES 3580 - History of Fashion to 1865
- ADES 3585 - History of Twentieth-Century Fashion
- AEAH 4815 - History of Interiors and Furniture II
- AEAH 4841 - History of Interiors and Furniture I
- AEAH 4842 - History of Communication Design


## Menu 2, 3-6 hours selected from

- ADES 1500 - Introduction to Communication Design
- ADES 1510 - Typography I
- ADES 1540 - Foundations for Communication Design
- ADES 1550 - Introduction to Fashion Design
- ADES 1560 - Fashion Design: Introduction to Industrial Sewing Techniques
- ADES 1625 - Introduction to Interior Design
- ADES 2515 - Image Making and Color Theory
- ADES 2550 - Fashion: Patternmaking I
- ADES 2630 - Drawing for Interior Design


## Menu 3, 9-12 hours selected from

(6 hours must be advanced)

- ART 4120 - Art on Location
- ART 4570 - Interdisciplinary Topics in Art
- ADES 4615 - Topics in Interior Design
- ANTH 4500 - Language and Culture
- ANTH 4701 - Topics in Sociocultural Anthropology
- COMM 3120-Nonverbal Communication
- HFMD 2400 - Introduction to the Furniture Industry
- HFMD 3380-Global Home Furnishings Industry
- JOUR 3410 - Public Relations for Non-Profits
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- LTEC 4510 - Communications in Business, Education and Industry
- MDSE 2490 - Introduction to Retail Merchandising
- MDSE 3370 - Fashion Theory and Trend Analysis
- MDSE 3750 - Consumer Studies
- PHIL 4740 - Environmental Justice
- SOCI 4600 - Sociology of Mass Communication


## Menu 4, 3-6 hours selected from

- MKTG 3010 - Professional Selling
- MKTG 3660 - Advertising Management
- MKTG 4280-Global Marketing Issues and Practice
- MKTG 4630 - Electronic Retailing and Promotion Strategies


## Menu 5, 6-9 hours selected from

- MGMT 3330-Communicating in Business
- MGMT 3860-Human Resource Management
- MGMT 3880 - Business Ethics and Social Responsibility
- MGMT 3915 - Creativity and Opportunity Development
- MGMT 4210 - E-Management: Managing in a Digital Economy
- MGMT 4235-Social Entrepreneurship
- MGMT 4335-Technology and Innovation Management
- MGMT 4470 - Leadership
- MGMT 4660 - International Management Perspectives


## 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 111.

## 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, BA

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 Academics 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 1200-Art Appreciation
- ART 1300 - Art Appreciation for Non-Art Majors
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- AEAH 4614 - Art and Business
- AEAH 4899 - Interdisciplinary Arts and Design Studies Capstone
- ASTU 3030 - Computer Applications in the Visual Arts


## 9 hours of advanced art history, including 3 hours from

- AEAH 4818 - Topics in Latin American Art
- AEAH 4819 - Topics in Native American Art
- AEAH 4820-Pre-Columbian Art of Mesoamerica
- AEAH 4821 - Topics in Pre-Columbian Art
- AEAH 4822 - African Art
- AEAH 4823 - Asian Art
- AEAH 4824 - Topics in Asian Art
- AEAH 4825 - Topics in Islamic and/or Middle Eastern Art
- AEAH 4801 - Topics in Art History (with IADS coordinator approval)


## Menu 1, 6 hours from

- ANTH 1150-World Cultures Through Film or
- Any 1000- or 2000-level ART, ADES or ASTU course


## Menu 2, 9 hours from

- ANTH 3101 - 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 - Peoples and Cultures of 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 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 4070-Urban Ethnic Cultures
- ANTH 4701 - Topics in Sociocultural Anthropology (when taught as "Symbolic Anthropology" or "Design Anthropology")
- ARCH 3650-Origins of Civilization
- BCIS 3615-Visual Display of Business Information
- CMHT 4000-Global Discovery in Merchandising and Hospitality Management (3 hours)
- COMM 3120 - Nonverbal Communication
- COMM 3865 - Adaptation and Staging
- COMM 4260 - Performance and Culture
- COMM 4460 - Performance Art
- EENG 4850 - Computer Vision and Image Analysis
- FREN 3055 - Image of the Artist in France Throughout the Ages
- FREN 4070 - French Culture and Literature through Film
- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4050 - Cartography and Graphics
- GEOG 4060 - Applied GIS: MapInfo Professional®
- GEOG 4070 - China Field School
- GEOG 4170 - Mapping and Field Methods
- HFMD 3355 - Historic and Contemporary Styles of Home Furnishings
- HFMD 3380-Global Home Furnishings Industry
- HFMD 3570 - Decorative Accessories Merchandising
- HIST 3762 - Rome: The Biography of a City
- ITAL 3050-Contemporary Italian Culture Through Film
- JOUR 3020 - Advertising Account Planning
- JOUR 3040 - Advertising Media Strategy
- JOUR 3050 - Advertising Creative
- JOUR 3055 - Visual Strategy
- JOUR 3200 - Mass Communication Research Methods
- JOUR 3210 - Applied Design for Advertising and Public Relations
- JOUR 3300 - Introduction to Visual Communication for News
- JOUR 3700 - Photojournalism
- JOUR 4020 - Advertising Industry in New York
- JOUR 4051 - Advertising Creative 2
- JOUR 4052 - Advertising Portfolio
- JOUR 4070 - Advertising Campaigns
- JOUR 4250 - Race, Gender and the Media: A Methods Approach
- JOUR 4343 - Visual News Storytelling
- JOUR 4720 - Multimedia Storytelling for News
- JOUR 4730 - Advanced Visual Communication
- LTEC 3220 - Computer Graphics in Education and Training
- LTEC 4210 - Digital Multimedia in Education and Training
- MDSE 3350 - Historic and Contemporary Styles of Apparel
- MDSE 3370 - Fashion Theory and Trend Analysis
- MDSE 3650 - Advanced Textiles
- MDSE 3750-Consumer Studies
- MDSE 3850 - Promotions
- MDSE 4001 - New York Study Tour for Merchandising and Digital Retailing
- MDSE 4002 - Dallas Study Tour for Merchandising and Digital Retailing
- MDSE 4003 - Global Discovery: Hong Kong/China
- MDSE 4010-Global Sourcing
- MDSE 4080 - Merchandising Ventures
- MDSE 4560 - Sustainable Strategies in Merchandising
- RETL 4850 - Brand Development
- MKTG 3660 - Advertising Management
- MKTG 4330-Strategic Brand Management
- PHIL 3100 - Aesthetics
- RESM 4180 - Planning, Designing, Maintaining RESM Facilities and Areas
- RUSS 3080 - Russian Through Music and Film
- SOCI 4600 - Sociology of Mass Communication
- 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 4385 - Hispanic Culture in the United States
- SPAN 4430 - Sexualities in Contemporary Spanish Cinema
- 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 4130 - Lighting III: Design
- THEA 4143-Costume III: Design
- THEA 4146 - Stagecraft 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.

## 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 Visual Arts and Design Student Services Office, Art Building, Room 111.

## 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 marketing, merchandising (fashion emphasis), business, archaeology, anthropology, computer education, management, history, or journalism.

## 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.


## Visual Arts Studies, BFA

The Bachelor of Fine Arts with a major in visual arts studies prepares you for a career in elementary, middle or high school art education or a career in community art programs. This degree also grooms you for graduate study in other education areas such as art museum education.

Visual Arts Studies pre-major requirements

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 Academics section of this catalog and the College of Visual Arts and Design requirements.

## Major requirements

Completion of at least 66 hours of art and 21 hours of professional development to include:

- ART 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ASTU 2200 - Beginning Figure Drawing
- ASTU 2300 - Introduction to Printmaking Techniques
- ASTU 2350 - Sculpture I
- ASTU 2210 - Painting I
or
- ASTU 2417 - Beginning Watercolor Painting
- AEAH 3753 - Visual Arts Studies: Foundations of Visual Arts Studies
- AEAH 3770 - Visual Arts Studies: Computer Art Applications
- AEAH 4760 - Visual Arts Studies: A Global Examination of Aesthetics
- AEAH 4790 - Visual Arts Studies: Inquiry and Dialogue About Art
- AEAH 4795 - Topics in Visual Arts Studies
- 9 advanced hours of art history
- 3 advanced hours of studio art (ASTU)


## 3 hours from

- ASTU 2050 - Beginning Ceramics
- ASTU 2130 - Introduction to Weaving
- ASTU 2150 - Metalsmithing and Jewelry I


## Additional requirements

In addition to the above courses, AEAH 4750 and AEAH 4780 must be taken as part of the professional development sequence. The major in visual arts studies prepares students to teach art in public schools. Students must meet state certification requirements and all general requirements specified by the College of Education.

## Other course requirements

- HDFS 3123 - Child Development
- EDEE 4101 - Student Teaching in EC through Grade 6
- EDSE 3800 - Professional Issues in Teaching
- EDSE 4060 - Content Area Reading in Secondary Schools
- EDSE 4138 - Student Teaching Secondary School - Art


## 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 111.

## 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).


## Minors

## Art History minor

A minor in art consists of at least 18 hours, including at least 6 advanced hours. At least 9 hours must be completed at UNT.

## Course sequence

- ART 1200 - Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- 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<br>Art Building, Room 237<br>Mailing address:<br>1155 Union Circle \#305100<br>Denton, TX 76203-5017<br>940-565-3621<br>Fax: 940-565-4717<br>E-mail: design@unt.edu<br>Web site: www.art.unt.edu

## Cynthia Mohr, Chair

## Faculty

The Department of Design offers the Bachelor of Fine Arts (BFA) degree with majors in communication design, fashion design and interior design, and administers the Interdisciplinary Art and Design Studies with a concentration in Design Management, BA, which is housed in the Department of Art Education and Art History. 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, interior design and design research, and the Master of Arts (MA) with a major in design with concentrations in design research and interior design for sustainability. Students interested in these degrees may contact the department chair.

## Mission/Vision Statement

The three professional programs in the Department of Design share a common mission that prepares students not only to meet, but also to define and re-invent solutions for the fundamental challenges that impact their respective professions in an increasingly changing world. The curricula in each of these programs have been designed and are being taught to help future designers develop the conceptual, aesthetic, analytical and technical skills necessary to achieve these objectives.

## Communication Design

The BFA degree program with a major in communication design is structured to help students who complete the program become effective conceptual thinkers and, most importantly, effective problem solvers who learn how to design (among other things) books, web sites, advertising campaigns, corporate identity systems, posters, electronic motion graphics, interactive information delivery systems and retail packaging. Students emerge from this program with the ability to generate original, creative messages and ideas, and the skills necessary to visually communicate them to specific audiences. They learn to do this by thoughtfully manipulating typography and imagery within carefully constructed systems and structures to direct, inform, educate, clarify, evoke, expose and beautify in both print and electronic media.

## Fashion Design

The 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, historically and present day, and the technical skills necessary to design, develop, and merchandise womenswear or menswear lines for the ready-to-wear market. They are also trained in the technological proficiencies necessary to function in the current-day apparel design and manufacturing business. The students acquire the ability to design and create, applying conceptual design practices through a rigorous series of courses.

## Interior Design

The CIDA accredited interior design program is structured to provide students with a complete exposure to residential and commercial interior design practice. Our curriculum prepares students for analyzing interior design problems, assessing existing conditions, researching and synthesizing solutions, visually and verbally presenting solutions, and reviewing the process for insights on future improvements, all with the goal of creating interior design solutions that are beautiful, conceptually relevant and safe.

## 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 and/or a capstone course 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 from the Department of Design Office, Art Building, Room 237. Students who do not pass one or another of the successive required reviews should consult with their faculty advisor and/or the department chair regarding further options.

Students are responsible for notifying faculty that they need to participate in the exit review. A faculty advisor in the student's major should be contacted at the beginning of the student's last fall or spring term/semester prior to graduation. Exit reviews are conducted only in fall and spring terms/semesters. Students who anticipate summer graduation must have their work reviewed during the previous spring term.

Note: Students should contact a faculty advisor in their major for specific expectations and procedures for all portfolio reviews.

## 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 majoring 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 advanced art courses), a pre-major must meet all of 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

- ART 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ADES 1500 - Introduction to Communication Design
- ADES 1510-Typography I
- ADES 1540 - Foundations for Communication Design
- ADES 2515 - Image Making and Color Theory


## Entry portfolio

Submit an entry portfolio (as described on the department web site) to the Communication Design Entry Portfolio Review and have been admitted prior to starting the Communication Design Freshman and Sophomore studio sequence.

## Portfolio review

Submit a portfolio (as described on the department web site) and pass the Communication Design Mid-Point Portfolio Review during the sophomore year.

## GPA requirements

- Have at least a 2.75 GPA on required art courses.
- Have a minimum 2.25 UNT grade point average.


## Fashion design pre-major

Entering students interested in majoring in the College of Visual Arts and Design are classified as pre-majors.

## Fashion Design admission and pre-major requirements

Entering students interested in majoring 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 advanced art courses), a pre-major must meet all of 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

- ART 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ADES 1550 - Introduction to Fashion Design

Once these courses are completed with a grade of $C$ or better, students are eligible to receive codes for ADES 1560 and ADES 2550.

## Complete with a grade of C or better

- ADES 1560 - Fashion Design: Introduction to Industrial Sewing Techniques
- ADES 2550 - Fashion: Patternmaking I


## Portfolio review

Submit and pass the portfolio to the Fashion Design Entry Portfolio Review at the end of ADES 2550.

## GPA requirements

- Have at least a 2.50 GPA on required art courses.
- Have a minimum 2.25 UNT grade point average.


## Interior Design pre-major

Entering students interested in majoring in the College of Visual Arts and Design are classified as pre-majors.

## Interior Design admission and pre-major requirements

Entering students interested in majoring in the College of Visual Arts and Design will be 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

- ART 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ADES 1625 - Introduction to Interior Design


## Complete with a grade of C or better

- ADES 2630 - Drawing for Interior Design
- ART 2350 - Art History Survey I


## Portfolio review

Submit a portfolio (as described on the department web site) and pass the sophomore review in the fall semester to gain admittance into ADES 2640.

## GPA requirements

- Have at least a 2.50 GPA on the required art courses.
- Have a minimum 2.25 UNT grade point average.


## Majors

## Communication Design, BFA

The Bachelor of Fine Arts with a major in communication design produces effective conceptual thinkers and creative problem solvers, and socially responsible citizens. You will gain the ability to generate original, creative messages and ideas and will create a professional portfolio to submit to potential employers.

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## Communication Design admission and pre-major requirements

Entering students interested in majoring 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 advanced art courses), a pre-major must meet all of 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

- ART 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ADES 1500-Introduction to Communication Design
- ADES 1510 - Typography I
- ADES 1540 - Foundations for Communication Design
- ADES 2515 - Image Making and Color Theory


## Entry portfolio

Submit an entry portfolio (as described on the department web site) to the Communication Design Entry Portfolio Review and have been admitted prior to starting the Communication Design Freshman and Sophomore studio sequence.

## Portfolio review

Submit a portfolio (as described on the department web site) and pass the Communication Design Mid-Point Portfolio Review during the sophomore year.

## GPA requirements

- Have at least a 2.75 GPA on required art courses.
- Have a minimum 2.25 UNT grade point average.


## 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 Academics 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):

## Art core

- ART 1200 - Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II

Communication Design major

- ADES 1500 - Introduction to Communication Design
- 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 4515 - Cause-Based Design
- ADES 4520-Graphic Design Advanced Campaigns
- ADES 4525 - Graphic Design Final Portfolio
- ADES 4541 - Portfolio Development
- AEAH 4842 - History of Communication Design
- 3 hours of printmaking, painting, watercolor, ceramics, jewelry and metalsmithing, fibers, photography, or sculpture
- Advanced art history (6 hours)


## Other required courses

## 3 hours selected from:

- ADES 4700-Professional Internship
- ANTH 3101 - American Culture and Society
- ANTH 3130 - African-American Anthropology
- ANTH 3140 - Latinos in the U.S.
- ANTH 3300 - Peoples and Cultures of the Pacific
- BEHV 3150-Basic Behavior Principles
- JOUR 3050 - Advertising Creative
- JOUR 4052 - Advertising Portfolio
- 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 requirements

No minor is required.

## Electives

Usually 9 hours (6 advanced). 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 111.

## 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 discover the skills necessary to conceptualize, present and develop finished garments from your original designs. We also provide you a thorough understanding of the fashion design industry from historical and present day perspectives.

Entering students interested in majoring in the College of Visual Arts and Design will be classified as pre-majors.

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## Fashion Design admission and pre-major requirements

Entering students interested in majoring 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 advanced art courses), a pre-major must meet all of 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

- ART 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ADES 1550 - Introduction to Fashion Design

Once these courses are completed with a grade of C or better, students are eligible to receive codes for ADES 1560 and ADES 2550.

## Complete with a grade of C or better

- ADES 1560 - Fashion Design: Introduction to Industrial Sewing Techniques
- ADES 2550 - Fashion: Patternmaking I


## Portfolio review

Submit and pass the portfolio to the Fashion Design Entry Portfolio Review at the end of ADES 2550.

## GPA requirements

- Have at least a 2.50 GPA on required art courses.
- Have a minimum 2.25 UNT grade point average.


## 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 Academics section of this catalog and the College of Visual Arts and Design requirements.

## Major requirements

Completion of at least 78 hours of art, including an 18-hour art core (required for all design majors):

## Art core

- ART 1200-Art Appreciation
- ART 1440 - Design I
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II


## Fashion Design major

Completion of at least 57 hours of art to include
(in addition to the 18 -hour core)

- ART 1450 - Design II
- ADES 1550 - Introduction to Fashion Design
- ADES 1560 - Fashion Design: Introduction to Industrial Sewing Techniques
- ADES 2550 - Fashion: Patternmaking I
- ADES 2555 - Fashion: Patternmaking II
- ADES 2560 - Fashion Design: Advanced Industrial Sewing Techniques
- ADES 2570 - Fashion Drawing
- ADES 3550 - Fashion: Draping
- ADES 3560 - Technical Design in Fashion
- ADES 3555 - Fashion: Industry Techniques
- ADES 3570 - Computers in Fashion: Presentation
- ADES 3575 - Computers in Fashion: Concept to Product
- ADES 3580 - History of Fashion to 1865
- ADES 3585 - History of Twentieth-Century Fashion
- ADES 4550 - Fashion: Target Market
- ADES 4555 - Fashion: Collection
- ADES 4560 - Fashion Design Concepts
- ADES 4580 - Fashion Design: Professional Practice
- ASTU 2120 - Introduction to Fibers
or
- ASTU 2130-Introduction to Weaving
or
- ASTU 3120 - Fibers: Screen Printing
- MDSE 2650 - Textiles for Apparel


## Plus one of the following

- ART 4120 - Art on Location
- ADES 3565 - Fashion Accessories
- ADES 4590 - Fashion Design Studio
- ADES 4595 - Exploration: Fashion Design
- ADES 4700 - Professional Internship


## 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 Services Office, Art Building, Room 111.

## 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.


## 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

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## Interior Design admission and pre-major requirements

Entering students interested in majoring in the College of Visual Arts and Design will be 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

- ART 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ADES 1625 - Introduction to Interior Design


## Complete with a grade of C or better

- ADES 2630 - Drawing for Interior Design
- ART 2350 - Art History Survey I


## Portfolio review

Submit a portfolio (as described on the department web site) and pass the sophomore review in the fall semester to gain admittance into ADES 2640.

## GPA requirements

- Have at least a 2.50 GPA on the required art courses.
- Have a minimum 2.25 UNT grade point average.


## 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 Academics section of this catalog and the College of Visual Arts and Design requirements.

## Major requirements

Completion of at least 75 hours of art, including an 18-hour art core (required for all design majors):

## Art core

- ART 1200 - Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II


## Required courses, at least 57 hours

## (in addition to the 18 -hour core)

- ADES 1625 - Introduction to Interior Design
- ADES 2630 - Drawing for Interior Design
- ADES 2640 - Interior Design: Space Planning I
- ADES 3610 - Interior Design: Presentation Techniques
- ADES 3620 - Interior Design: AutoCAD
- ADES 3630 - Interior Design: Space Planning II
- ADES 3635 - Interior Design: Detailing
- ADES 3640 - Interior Design: Space Planning III
- ADES 3645 - Interior Design: Building Systems
- ADES 4615 - Topics in Interior Design (6 hours)
- ADES 4625 - Interior Design: Professional Practice
- ADES 4630 - Interior Design: Space Planning IV
- ADES 4640 - Interior Design: Space Planning V
- ADES 4700 - Professional Internship
- AEAH 4815 - History of Interiors and Furniture II
- AEAH 4841 - History of Interiors and Furniture I


## Professional support courses

Students are also required to take the following professional support courses:

- HFMD 2655 - Textiles for Home Furnishings
- MGMT 3820-Management Concepts
- MKTG 3650 - Foundations of Marketing Practice


## 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 Services Office, Art Building, Room 111.

## 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.


## Grad Track Options

Interior Design, BFA with grad track option leading to Design with a concentration in Interior Design for Sustainability, MA

The Department of Design offers a grad track pathway for the existing UNT undergraduate student pursuing a major in interior design to first earn their bachelor's and then earn their master's degree in a shorter period of time. In this grad track option, the student will take a maximum of 12 credit hours of graduate courses while completing the BFA with a major in interior design. These credits will then be counted toward the MA with a major in design and a concentration in interior design for sustainability. Prior to registering for graduate courses, the student must have been admitted into the grad track option.

## Admission requirements and program policies

Admission requirements

Interior design undergraduate majors at UNT must have completed at least 75 credit hours of undergraduate course work or the equivalent before applying for admission to the grad track option. Other admission requirements include:

- an official transcript
- statement of purpose articulating a topic of sustainable design project/research interest and future career goals upon completion of the master's degree
- two letters of recommendation from program faculty members in the major area attesting to the student's ability to successfully engage in graduate level course work
- a minimum cumulative GPA of 3.5 , with a minimum GPA of 3.5 in the following courses:

O ADES 3620
O ADES 3635
O ADES 3640
O ADES 3645
Students must also meet all admission criteria established by the Toulouse Graduate School, with the exception of completion of the baccalaureate degree.

The student's application will be reviewed by the entire Interior Design faculty.

## Program policies

The student admitted to the grad track option will be admitted into the MA program on a conditional basis. Once the student has satisfied all course work for the BFA degree and maintained a 3.5 or higher GPA, they will be fully admitted to the MA program.

Undergraduate students who have been accepted to the grad track option must complete all of their bachelor's degree requirements 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.

The grad track student must enroll in graduate school in the first long semester following the completion of the BFA degree. If the student fails to enroll in the first long semester upon completion of the BFA degree, the graduate course credit hours taken during the undergraduate degree will not apply to the MA degree, even if the student returns to graduate school in the future. Once enrolled in the MA program, grad track students must complete the MA degree in the following year(s) to complete his or her MA degree with a concentration in interior design for sustainability.

Grad track students will not be eligible for most graduate prerequisites including teaching and research assistantships and related health insurance, financial aid, or graduate award programs until the undergraduate degree is completed and the student is officially accepted as a graduate student.

## Program requirements

After completing at least 90 hours of the undergraduate program, the accepted grad track student will be allowed to take the following graduatelevel courses:

- ADES 5515 - Using Critical Methods to Guide Critical Writing in Design (replaces an elective credit)
- ADES 5520 - Methods Employed by Design Researchers (replaces an elective credit)
- ADES 5630 - Interior Design: Space Planning IV (replaces ADES 4630 - Interior Design: Space Planning IV)
- ADES 5632 - Interior Design: Space Planning V (replaces ADES 4640 - Interior Design: Space Planning V) See the BFA with a major in interior design for the remainder of the requirements for the bachelor's degree.


## Department of Studio Art

Main Office
Art Building, Room 316
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Web site: art.unt.edu

## Annette Lawrence, Chair

## Faculty

The Department of Studio Art offers the BFA degree with a major in studio art and concentrations in ceramics, drawing and painting, fibers, metalsmithing and jewelry, new media art, photography, printmaking and sculpture. Students interested in these degrees may contact the department chair.

Studio classrooms are open to students most evenings and weekends for completion of required class work. Students must provide their own art supplies.

## Mission/Vision statement

The mission of the Department of Studio Art is to promote excellence in the visual arts through a comprehensive educational program in its eight studio concentrations. The eight concentrations in the Department of Studio Art are ceramics, drawing and painting, fibers, jewelry and metalsmithing, new media, photography, printmaking and sculpture. Each of the areas of study requires students who major in the concentration to take courses from the other areas to assure that the students are getting a well-rounded experience. Students are expected to experiment and test the boundaries of their chosen mediums. They are also expected to know the historical and contemporary contexts of the fields that they are entering. With eight concentrations, each providing a fully immersive experience for the students, the department accomplishes comprehensive training of artists who leave the college prepared to work as professionals in their chosen fields. If students choose not to pursue careers as practicing artists, they are prepared to work in the field of art or other fields that value the ability to problem solve, think critically, and initiate projects at the ground level.

## Entering students

Entering students interested in majoring in a discipline in the Department of Studio Art will be classified as pre-majors and will initially be advised by the office of Student Services. Admission to the university does not guarantee admission to the major.

## Portfolio reviews

Each concentration has a review system consisting of an entry-level portfolio review and a mid-point portfolio review, which the student must pass to continue in the concentration. All concentrations require that seniors pass an exit review and/or a capstone course prior to graduation. It is the students' responsibility to familiarize themselves with all requirements for their concentration. Further information regarding the review system for each concentration is available from the College of Visual Arts and Design Student Services Office in the Art Building, Room 111. Upon request, advising staff will provide students with a curriculum sheet that specifies degree requirements and outlines the procedure for required review(s) in their concentration.

Students who do not pass one or another of the successive required reviews should consult with their faculty advisor and/or the department chairperson regarding further options.

Students are responsible for notifying faculty that they need to participate in the exit review. A faculty advisor in the student's major should be contacted at the beginning of the student's last fall or spring term/semester prior to graduation. Exit reviews are conducted only in fall and spring terms/semesters. Students who anticipate summer graduation must have their work reviewed during the previous spring term.

Note: Students should contact a faculty advisor in their major for specific expectations and procedures for all portfolio reviews.

## Pre-majors

## Studio Art pre-major

Entering students interested in majoring in the College of Visual Arts and Design will be classified as pre-majors. To be admitted to the studio art major (and to be eligible to enroll in advanced art courses), a pre-major must meet all the following requirements:

Complete a minimum of 30 hours of college courses (including the following) and:

## Complete the following with a grade of C or better

- ART 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I or
- ART 2360 - Art History Survey II


## 2000-level course in ASTU concentration of choice

Complete the 2000-level course in the ASTU concentration of choice with a grade of B or higher.
(Drawing and painting majors must receive a "B" in ASTU 2210 and ASTU 2215; sculpture majors must receive a "B" in ASTU 2350 and ASTU 3350; and, for printmaking, the beginning ASTU course is a 3000-level course)

## GPA requirements

- Have a minimum 2.5 GPA on required ART courses.
- Have a minimum 2.0 GPA overall


## Note

Drawing and painting and photography also require selection through entry portfolio (as described on web site).

## Majors

## Studio Art with a concentration in Ceramics, BFA

The Bachelor of Fine Arts with a major in studio art and a concentration in ceramics is designed to assist the undergraduate student in achieving excellence in his or her personal direction in the medium. The curriculum is structured to challenge the student both conceptually and technically through a series of progressively more intense assignments and experiences. In the beginning classes, early emphasis is placed on a common foundation of basic fabrication and decorating techniques and is followed by opportunities to expand those skills in intermediate and upper-level courses.

## Program requirements

Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 "General University Requirements" in the Academic section of this catalog and the College of Visual Arts and Design 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 1200 - Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ASTU 2200 - Beginning Figure Drawing


## Ceramics concentration

- ASTU 2050 - Beginning Ceramics
- ASTU 3050 - Intermediate Ceramics: Wheel Throwing
- ASTU 3055 - Intermediate Ceramics: Handbuilding
- ASTU 4010 - Professional Practices for the Studio Artist
- ASTU 4050 - Advanced Ceramics Studio (9 hours)
- ASTU 4051 - Advanced Ceramics Studio I
- 6 hours (3 advanced) from a second craft field
- 3 hours from a third craft field
- 6 advanced hours of art history
- 15 hours (12 advanced) of art electives


## 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 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 Services Office, Art Building, Room 111.

## 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

The mission of the drawing and painting concentration is to provide a comprehensive educational program designed to lay a solid foundation of basic skills and concepts, to foster critical thinking, and to inspire creativity so that each student may find his or her own aesthetic voice and develop a sustainable studio practice.

## Program requirements

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 "General University Requirements" in the Academic section of this catalog and the College of Visual Arts and Design 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 1200 - Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ASTU 2200 - Beginning Figure Drawing


## Drawing and Painting concentration

- AEAH 4812 - Modernism and the Visual Arts 1890-1945
- AEAH 4813 - Postmodernism and the Visual Arts 1945-Present
- ASTU 2210 - Painting I
- ASTU 2215 - Painting II
- ASTU 3200 - Intermediate Figure Drawing
- ASTU 3210 - Intermediate Painting I
- ASTU 4010 - Professional Practices for the Studio Artist
- ASTU 4210 - Advanced Painting Studio I
- ASTU 4215 - Advanced Drawing Studio I


## 3 hours from

- ASTU 3212 - Intermediate Painting II
- ASTU 3220 - Figure Painting I


## Menu 1, 3 hours

- ASTU 2050-Beginning Ceramics
- ASTU 2130 - Introduction to Weaving
- ASTU 2150 - Metalsmithing and Jewelry I
- ASTU 2350 - Sculpture I


## Menu 2, 6 hours

- ASTU 4212 - Advanced Painting Studio II
- ASTU 4217 - Advanced Drawing Studio II
- ASTU 4220 - Figure Painting Studio
- ASTU 4230 - Hybrid Forms
(May only take each course once)


## Menu 3, 3 hours

- ASTU 3030 - Computer Applications in the Visual Arts
- ASTU 3120 - Fibers: Screen Printing
- ASTU 3305 - Artist's Bookmaking
- ASTU 3310 - Printmaking: Etching
- ASTU 3315 - Printmaking: Monotype Printmaking
- ASTU 3320 - Printmaking: Screen Printing
- ASTU 3330 - Printmaking: Lithography
- ASTU 3340 - Printmaking: Relief Printmaking


## Art electives, 12 hours

12 hours (6 advanced) of art electives.

## Additional requirements

- Entry review administered after ASTU 2215.
- Intermediate review administered after ASTU 3212 or ASTU 3220.
- Exit review conducted during final enrollment in a 4000 -level drawing or painting course.

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.

## 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 Services Office, Art Building, Room 111.

## 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 Fibers, BFA

Students graduating with a Bachelor of Fine Arts with a major in studio art and a concentration in fibers are expected to have a basic understanding of surface design and weaving techniques and to have the ability to balance conceptual ideas with formal aesthetics. Students are expected to use proper terms when discussing fiber techniques, processes, equipment and materials. Additionally, it is expected that each student is knowledgeable of current issues relating to the fiber art field.

## Program requirements

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 "General University Requirements" in the Academic section of this catalog and the College of Visual Arts and Design 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 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ASTU 2200 - Beginning Figure Drawing


## Fibers concentration

- ASTU 2120 - Introduction to Fibers
- ASTU 2130 - Introduction to Weaving
- ASTU 3120 - Fibers: Screen Printing
- ASTU 3131 - Weaving I
- ASTU 3135 - Fibers: Alternative Processes
- ASTU 3141 - Surface Design I
- ASTU 4010 - Professional Practices for the Studio Artist
- ASTU 4132 - Weaving II
- ASTU 4133 - Weaving III
- ASTU 4142 - Surface Design II
- ASTU 4143 - Surface Design III


## Additional course work

- 6 hours (3 advanced) from a second craft
- 6 hours of advanced art history
- 9 hours (6 advanced) of art electives

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 De or below will not satisfy any art-based course requirements, electives or prerequisites.

## 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 Services Office, Art Building, Room 111.

## 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 Metalsmithing and Jewelry, BFA

The Bachelor of Fine Arts with a major in studio art and a concentration in metalsmithing and jewelry is designed to assist the undergraduate student to achieve excellence in his or her personal ambitions within related metalsmithing and jewelry fields. Early emphasis is placed on a common foundation of experiences in jewelry and metal design, problem solving and fabrication techniques. This is followed by extensive experience in traditional and contemporary technical aspects of the field, greater awareness of the historical and social relationships of their work and maintenance and safe use of equipment. Some emphasis is placed specifically on jewelry and other functional objects in the basic courses, but students are encouraged to examine the concept of function and how it has evolved within the field and the culture at large.

## Program requirements

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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:

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 "General University Requirements" in the Academic section of this catalog and the College of Visual Arts and Design 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 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ASTU 2200 - Beginning Figure Drawing


## Metalsmithing and Jewelry concentration

- ASTU 2150 - Metalsmithing and Jewelry I
- ASTU 4150 - Advanced Metalsmithing \& Jewelry Studio I
- ASTU 4151 - Advanced Metalsmithing \& Jewelry Studio II


## 9 hours from

- ASTU 3150 - Intermediate Metalsmithing and Jewelry: Color and Surface
- ASTU 3155 - Intermediate Metalsmithing and Jewelry: Plasticity
- ASTU 3160 - Intermediate Metalsmithing and Jewelry: Adornment
- ASTU 3165 - Intermediate Metalsmithing and Jewelry: Technology
- ASTU 3170 - Intermediate Metalsmithing and Jewelry: Mechanisms and Multiples


## Additional course requirements

- 3 additional hours from the metalsmithing and jewelry options
- 6 hours (3 advanced) from a second craft
- 3 hours from a third craft
- 6 advanced hours of art history (3 of which must be AEAH 4840)
- 18 hours ( 15 advanced) of art electives


## 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 Services Office, Art Building, Room 111.

## 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

The goal of the new media art concentration is to inspire students to find their individual artistic voice. Through enforcing a rigorous studio practice, as well as technical and conceptual competencies within the new media art field, students are prepared to become independent artists and thinkers able to achieve their personal aesthetic and intellectual goals. Upon graduation, BFA students have the qualifications to be successful artists, excellent candidates for MFA application and trained for any work which requires a fine arts degree combined with technical skills.

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 "General University Requirements" in the Academic section of this catalog and the College of Visual Arts and Design 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 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ASTU 2200 - Beginning Figure Drawing


## New Media Art concentration

- AEAH 4813 - Postmodernism and the Visual Arts 1945-Present
- AEAH 4814-Theories of Contemporary Art
- ASTU 2450 - Introduction to New Media Art
- ASTU 2460 - Time-Based Media Art
- ASTU 3450 - Creative Software Programming and Physical Computing
- ASTU 3460 - New Media Art: Experimental 3D
- ASTU 4010 - Professional Practices for the Studio Artist
- ASTU 4450 - Topics in New Media Art (6 hours)
- ASTU 4460 - Advanced New Media Art (6 hours)


## Additional courses

21 hours (15 advanced) of any non-new media classes taken in ART, art history, ADES, ASTU and/or MUCP (maximum of 6 hours in MUCP).
Students who choose to take MUCP 4590 for 2 SCH may take 1 SCH lab MUEN 4595 for degree credit.

## 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 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 Services Office, Art Building, Room 111.

## 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

The Bachelors of Fine Arts with a major in studio art and a concentration in photography at the University of North Texas is designed to provide undergraduate students with the opportunity to build technical skills while developing a strong conceptual basis for their art. Through a rigorous program of study including classes with instruction in digital imaging, black and white photography, view camera, alternative processes, and time based media, students are encouraged to develop both conceptually and technically. Photographic study includes researching historical references and contemporary issues to inform the creative process and to further artistic development.

## Program requirements

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 "General University Requirements" in the Academic section of this catalog and the College of Visual Arts and Design 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 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ASTU 2200 - Beginning Figure Drawing


## Photography concentration

- AEAH 4843 - History of Photography
- ASTU 2250 - Photography I
- ASTU 2255 - Photography II
- ASTU 2210 - Painting I
or
- ASTU 2417 - Beginning Watercolor Painting
- ASTU 3250 - Photography III
- ASTU 3270 - Darkroom Photography
- ASTU 4250 - Photography Studio (6 hours)
- ASTU 4260 - Photography and the Web
- ASTU 4270 - Alternative Photographic Processes
- ASTU 4280 - Photography: Advanced Lighting Techniques or
- ASTU 4290 - Topics in Photography
- 3 advanced hours of art history
- $\quad 12$ hours ( 9 advanced) of art electives
- Must pass entry review held at the end of ASTU 2255


## 3 hours from

- ASTU 2050 - Beginning Ceramics
- ASTU 2150 - Metalsmithing and Jewelry I
- ASTU 2350 - Sculpture I


## 3 hours from

- ASTU 3120 - Fibers: Screen Printing
- ASTU 3305 - Artist's Bookmaking
- ASTU 3310 - Printmaking: Etching
- ASTU 3315 - Printmaking: Monotype Printmaking
- ASTU 3320 - Printmaking: Screen Printing
- ASTU 3330 - Printmaking: Lithography
- ASTU 3340 - Printmaking: Relief Printmaking

Note:

All students seeking a BFA in Studio Art with a concentration in Photography must receive a grade of B or better in ASTU 2250 for the course to count toward their degree. This requirement also includes course equivalents that are transferred to UNT.

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.

## 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 Services Office, Art Building, Room 111.

## 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

The mission of the concentration in printmaking is to promote excellence in the print arts through a comprehensive educational program designed to transmit our artistic heritage, lay a solid foundation of basic skills and concepts, foster critical thinking, and inspire creativity so that each student may find his or her own aesthetic voice.

## Program requirements

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.

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 "General University Requirements" in the Academic section of this catalog and the College of Visual Arts and Design 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 1200-Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ASTU 2200 - Beginning Figure Drawing


## Printmaking concentration

- AEAH 4813 - Postmodernism and the Visual Arts 1945-Present
- AEAH 4844 - History of Prints
- ASTU 2210 - Painting I
- ASTU 2250 - Photography I
- ASTU 3200 - Intermediate Figure Drawing
- ASTU 4010 - Professional Practices for the Studio Artist
- ASTU 4300 - Printmaking Studio (6 hours)


## 9 hours from

- ASTU 3305 - Artist's Bookmaking
- ASTU 3310 - Printmaking: Etching
- ASTU 3315 - Printmaking: Monotype Printmaking
- ASTU 3320 - Printmaking: Screen Printing
- ASTU 3330 - Printmaking: Lithography
- ASTU 3340 - Printmaking: Relief Printmaking


## 6 hours from

- ASTU 4305 - Advanced Artist's Bookmaking
- ASTU 4310 - Printmaking: Advanced Etching
- ASTU 4315 - Printmaking: Advanced Monotype
- ASTU 4320 - Printmaking: Advanced Screen Printing
- ASTU 4330 - Printmaking: Advanced Lithography
- ASTU 4340 - Printmaking: Advanced Relief Printmaking


## Art electives

15 hours of art electives (9 advanced)

## 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.

## Mid-point review

Students who wish to be in the printmaking concentration must participate in the Printmaking Mid-point Review during their second Menu 1 printmaking course. Students must pass the Printmaking Mid-point Review in order to proceed to the 4000-level printmaking courses. Reviews are offered in Fall and Spring semesters only. Students who wish to be in the printmaking concentration are discouraged from taking their second Menu 1 course during a summer term. If they do so, they must participate in the mid-point review during the Fall semester and will not be permitted to enroll in 4000-level printmaking courses during the Fall term. Students who do not pass the review may request permission to resubmit an improved portfolio for review the following long semester. Failure to pass the review after two attempts will automatically eliminate the student from the printmaking program.

## 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 Services Office, Art Building, Room 111.

## 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 $\mathrm{C}(2.0)$ or better in art courses will count toward degree requirements.


## Studio Art with a concentration in Sculpture, BFA

The mission of the concentration in sculpture is to promote excellence in three-dimensional design and sculpture through a comprehensive educational program designed to transmit our artistic heritage, lay a solid foundation of basic skills and concepts, foster
critical thinking, and inspire creativity, so that each student may find his or her own aesthetic voice and successfully convey his or her concepts through three-dimensional form. Students of sculpture, by understanding issues of space, scale, and the relationship of the body to the built environment, contribute to the cultural, historical, and intellectual discourse of our time.

## Program requirements

## Admission requirements

In addition to the university admission requirements, applicants to the College of Visual Arts and Design must meet the following minimum requirements:

- Freshman applicants must have a verbal SAT score of 450 or higher, or an English ACT score of 18 or higher.
- Transfer applicants (including those transferring from another major within the university) must have a cumulative GPA of 2.5 or higher.
Students who do not meet the minimum requirements listed above may submit a one-page support document/images that may be taken into consideration during the admission process. At the time of the application, this optional document/images should be submitted to https://cvadforms.unt.edu/cvad-entry-requirements. Applicants admitted under these circumstances will be admitted on a conditional basis. They will be required to earn a GPA of 2.5 during their first semester to continue as a major or pre-major in the college.


## 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 "General University Requirements" in the Academic section of this catalog and the College of Visual Arts and Design 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 1200 - Art Appreciation
or
- ART 1301 - Honors Art Appreciation
- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ART 1510 - Drawing II
- ART 2350 - Art History Survey I
- ART 2360 - Art History Survey II
- ASTU 2200 - Beginning Figure Drawing


## Sculpture concentration

- ASTU 2350 - Sculpture I
- ASTU 3200 - Intermediate Figure Drawing
- ASTU 3350 - Sculpture II
- ASTU 4010 - Professional Practices for the Studio Artist
- ASTU 4350 - Advanced Sculpture Studio (9 hours)
- ASTU 4351 - Advanced Sculpture Studio I
- AEAH 4814 - Theories of Contemporary Art
- 6 hours from ceramics, fibers, or metalsmithing and jewelry
- 6 advanced hours of art history
- $\quad 15$ hours (12 advanced) of art electives


## 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 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 Services Office, Art Building, Room 111.

## 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

## Ceramics 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.

## Ceramics

- ART 1440-Design I
- ART 1450 - Design II
- ASTU 2050 - Beginning Ceramics
- ASTU 3050 - Intermediate Ceramics: Wheel Throwing
- ASTU 3055 - Intermediate Ceramics: Handbuilding
- ASTU 4050 - Advanced Ceramics Studio
or
- ASTU 4051 - Advanced Ceramics Studio I

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.

## Fibers 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.

## Fibers

- ART 1440 - Design I
- ART 1450 - Design II
- ASTU 3120 - Fibers: Screen Printing
- ASTU 2120 - Introduction to Fibers
or
- ASTU 2130 - Introduction to Weaving
- ASTU 3131 - Weaving I
or
- ASTU 3141 - Surface Design I
- ASTU 4132 - Weaving II
or
- ASTU 4142 - Surface Design II

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.

## Metalsmithing and Jewelry 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.

## Metalsmithing and Jewelry

- ART 1440 - Design I
- ART 1450 - Design II
- ASTU 2150 - Metalsmithing and Jewelry I
- ASTU 4150 - Advanced Metalsmithing \& Jewelry Studio I


## 6 hours from

- ASTU 3150 - Intermediate Metalsmithing and Jewelry: Color and Surface
- ASTU 3155 - Intermediate Metalsmithing and Jewelry: Plasticity
- ASTU 3160 - Intermediate Metalsmithing and Jewelry: Adornment
- ASTU 3165 - Intermediate Metalsmithing and Jewelry: Technology
- ASTU 3170 - Intermediate Metalsmithing and Jewelry: Mechanisms and Multiples


## Mid-point review

Students must pass the mid-point review to enter ASTU 4150.

## 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.

## 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

- ART 1440 - Design I
- ART 1450 - Design II
- ASTU 2250 - Photography I
- ASTU 2255 - Photography II (must pass portfolio review before proceeding)
- ASTU 3250 - Photography III


## Plus 3 hours selected from

- ASTU 4260 - Photography and the Web
- ASTU 4270 - Alternative Photographic Processes
- ASTU 4280 - Photography: Advanced Lighting Techniques
- ASTU 4290 - Topics in 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.

## Sculpture 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.

## Sculpture

- ART 1440 - Design I
- ART 1450 - Design II
- ART 1500 - Drawing I
- ASTU 2350 - Sculpture I
- ASTU 3350-Sculpture II
- ASTU 4350 - Advanced Sculpture Studio
or
- ASTU 4351 - Advanced Sculpture Studio I


## Note

Additional prerequisites do not apply to sculpture minors.

## 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.

## Toulouse Graduate School

Main Office
Eagle Student Services Center, Room 354
Mailing address:
1155 Union Circle \#305459
Denton, TX 76203-5017
940-565-2383
Fax: 940-565-2141
E-mail: graduateschool@unt.edu
Web site: www.gradschool.unt.edu
Costas Tsatsoulis, Interim Dean

Joseph R. Oppong, Associate Dean of Research and Professional Development

## 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 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.

## Administration, faculty and librarians

UNT system and university officers

## Board of Regents

Brint Ryan, Chair (2021), Dallas
Milton B. Lee (2017), Austin
Ashok (A.K.) Mago (2021), Dallas
Donald Potts (2017), Dallas
Rusty Reid (2019), Fort Worth
Gwyn Shea (2013), Dallas
Al Silva (2017), San Antonio
B. Glen Whitley (2019), Hurst

Laura Wright (2021) Dallas

Student Regent
Appointed annually

## UNT system administration

Lee F. Jackson, MPA, Chancellor of the University of North Texas System
Michael R. Williams, DO, MD, MBA, President of the UNT Health Science Center at Fort Worth
Robert Mong, President of UNT Dallas
Rosemary R. Haggett, PhD, Vice Chancellor for Academic Affairs and Student Success, Board Secretary
Jack Morton, JD, Vice Chancellor for Governmental Relations
Nancy S. Footer, JD, Vice Chancellor and General Counsel
Janet Waldron, Vice Chancellor for Finance
James Maguire, MArch, AUA, NCARB, Vice Chancellor for Facilities Planning and Construction
Tracy Grunig, MPA, CPA, CFE, CISSP, Chief Audit Executive

## UNT administration

Neal J. Smatresk, PhD, President
Finley Graves, PhD, Provost and Vice President for Academic Affairs
David Wolf, PhD, Vice President for Advancement
Bob Brown, MBA, Vice President for Finance and Administration
Deborah S. Leliaert, MEd, Vice President for University Relations and Planning
Shannon Goodman, MEd, Vice President for Enrollment
Elizabeth With, EdD, Vice President for Student Affairs
Hank Dickenson, MSS, Acting Director of Athletics
Thomas McCoy, PhD, Vice President for Research and Economic Development
Joanne Woodard, MA, Vice President for Institutional Equity and Diversity

## Academic deans

Honors College
Glênisson de Oliveira, PhD, Interim Dean

College of Arts and Sciences
David Holdeman, PhD, Interim Dean

## College of Business

Marilyn Wiley, PhD, Dean

College of Education
Jerry R. Thomas, EdD, Dean
College of Engineering

Costas Tsatsoulis, PhD, Dean

College of Information
Herman L. Totten, PhD, Dean

Frank W. and Sue Mayborn School of Journalism

Dorothy Bland, PhD, Dean

College of Merchandising, Hospitality and Tourism
Judith C. Forney, PhD, Dean

College of Music

James Scott, DMA, Dean
College of Public Affairs and Community Service

Thomas L. Evenson, PhD, Dean

College of Visual Arts and Design
Greg Watts, MFA, Dean

## Toulouse Graduate School

Costas Tsatsoulis, PhD, Interim Dean

University Libraries
Martin Halbert, 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 Profile System (https://faculty.unt.edu/index.php). Select "Faculty Profiles" from the Browse menu. To access faculty information from a specific department or from the Libraries, use the dropdown menu at the head of the faculty list.

Graduate faculty of the Graduate School of Bio-medical Sciences and the School of Public Health at the University of North Texas Health Science Center at Fort Worth (UNTHSC) 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 UNTHSC Graduate Catalog for UNTHSC graduate faculty listings.

## Emeritus faculty

Adkins, Cecil, Music (1963-2000).
Adkison, Judith, Education (1983-2011).
Albertson, Roxanne, Education (1979-2000).
Allen, John Ed, Arts and Sciences (1963-2011).
Altekruse, Michael, Education (1995-2005).
Anderson, Miles, Arts and Sciences (1950-1992).
Aronson, Harriet, Arts and Sciences (1971-1999).
Austin, Larry, Music (1978-1996).
Bahnsen, Kenneth, Education (1955-2003).
Bailey, Don C., Education (1962-1999).
Baird, James, Arts and Sciences (1966-2011).
Bane, Robert, Education (1970-2007).
Bator, Elizabeth, Arts and Sciences (1983-2009).
Beitinger, Thomas L., Arts and Sciences (1976-2011).
Belcher, William F., Arts and Sciences (1950-1985).
Benet, Diana, Arts and Sciences (2001-2012).
Berg, Robert, Education (1968-2006).
Berger, Lorraine, Visual Arts (1964-1995).
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).
Brady, William T., Arts and Sciences (1962-1999).
Braswell, Michael, Business (1990-2015).
Braterman, Paul S., Arts and Sciences (1988-2006).
Brock, Horace, Business Administration (1959-1992).
Brookshire, William, Education (1970-2003).
Brothers, Lester, Music (1974-2005).
Brown, Newel Kay, Music (1970-1991).
Brusilow, Anshel, Music (1989-2008).
Buckalew, Mary, Arts and Sciences (1965-1998).
Buhler, June, Education (1973-2000).
Bush, Deanna D., Music (1980-2011).
Caldwell, Patsy, Education (1959-2000).
Campbell, Lloyd P., Education (1970-2006).
Candelaria, Leonard, Music (1974-2003).
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).
Cleveland, Donald, Library and Information Sciences (1977-2004).
Clogan, Paul, Arts and Sciences (1971-1998).
Coda, Bernard, Business Administration (1965-1997).
Coe, Barbara, Business Administration (1980-2005).
Coe, Teddy L., Business Administration (1980-2007).
Colson, Ted, Arts and Sciences (1956-1993).
Combest, Sandi, Arts and Sciences (1966-2001).
Contreras, Gloria, Education (1987-2011).
Cooke, J. V., Arts and Sciences (1937-1974).
Cooper, J. Arthur, Education (1966-1998).
Copeland, Ben, Business Administration (1963-2000).
Corbin, John, Library and Information Sciences (1973-1977, 1987-2000).
Cornelius, Bill, Education (1966-2004).
Crader, Jeannine, Music (1970-1997).
Crocker, Betty, Education (1988-2010).
Cross, C. Jack, Education (1955-1992).
Crowder, Robert, Arts and Sciences (1979-1997).
Dameron, Joseph, Education (1968-1995).
Damico, Anthony, Arts and Sciences (1966-2001).

Davidson, Martin, Arts and Sciences (1967-1984).
Davis, Addie Nell, Human Resource Management (1951-1981).
Davis, D. Jack, Visual Arts and Design (1971-2011).
Day, Kaaren, Education (1989-2008).
Deering, William, Arts and Sciences (1965-2008).
DeLaney, Gloria, Education (1960-1999).
Desiderato, Robert, Arts and Sciences (1966-2004).
Detrick, Robert, Arts and Sciences (1969-1996).
Dickson, Kenneth L., Arts and Sciences (1978-2010).
DiFiori, Linda, Music (1996-2014).
Ditzenberger, Roger, Education (1980-2007).
Dixon, Paul, Education (1992-2006), Dean.
Dobson, Gerard R., Arts and Sciences (1969-1999).
Donahue, Manus, Arts and Sciences (1982-2002).
Earp, Norman Wesley, Education (1963-1995).
Eaton, Henry, Arts and Sciences (1966-2011).
Eddy, John Paul, Education (1979-2000).
Ellis, Janet, Public Affairs and Community Service (1989-2009).
Engels, Dennis, Education (1976-2011).
Esterchild, Elizabeth, Public Affairs and Community Service (1969-2007).
Evans, Mary, Human Resource Management (1958-1981).
Feigert, Frank, Arts and Sciences (1977-2003).
Fink, Ron, Music (1964-2000).
Fisher, Vernon, Visual Arts (1978-2006).
Fitzpatrick, Lloyd, Arts and Sciences (1970-2014).
Froehlich, Hildegard, Music (1976-2001).
Garner, Cody, Music (1989-2006).
Gibbons, Henry, Music (1980-2012).
Giese, James William, Business Administration (1966-1985).
Gillespie, James E., Music (1978-2011).
Gleeson, Larry, Visual Arts and Design (1972-2007).
Glick, Edwin, Arts and Sciences (1970-1995).
Golden, David, Arts and Sciences (1985-2004).
Goodwin, Vicki, Business (1991-2014).
Gough, Georgia Leach, Arts and Sciences (1952-1975).
Greenlaw, M. Jean, Education (1978-2005).
Groom, Joan, Music (1973-2011).
Grubbs, Bill, Engineering (1993-2011).
Gunter, Pete, Arts and Sciences (1969-2005).
Haerle, John M. (Dan), Jr., Music (1977-2007).
Halstead, Frank, Education (1966-1997).
Harris, Mary, Education (2000-2014).
Harrison, Thomas, Arts and Sciences (1972-2004).
Hartman, David, Public Affairs and Community Service (1992-2011).
Hasty, Ron, Business Administration (1992-2011).
Haynes, Jack R., Arts and Sciences (1963-1999).
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).
Hinely, Reginald, Education (1962-2000).
Holcomb, Terry, Education (1973-2005).
Holman, John, Public Affairs and Community Service (1984-2006).
Hudnall, Margaret, Music (1968-2004).
Hudson, Johnetta, Education (1999-2012).
Jeffrey, Lloyd N., Arts and Sciences (1955-1983).
Johnson, Charles, Education (1957-1994).
Johnson, Douglas A., Arts and Sciences (1971-2004).
Johnson, James, Jr., Visual Arts (1968-1995).
Johnson, J. Keith, Music (1986-2014).
Johnson, Ray W., Arts and Sciences (1965-1999).

Johnson, Karrell, Music (1997-2013).
Johnston, Richard, Arts and Sciences (1968-1984).
Jordan, Ann, Public Affairs and Community Service (1990-2014).
Kamman, William T., Arts and Sciences (1962-2009).
Kemerer, Frank R., Education (1978-2003).
Kennelly, Kevin, Arts and Sciences (1967-2000).
Kern, R. Fred, Music (1980-2011).
Kester, Stephen A., Arts and Sciences (1967-1994).
Kesterson, David, Arts and Sciences (1968-2007).
King, Barry, Business Administration (1970-1995).
Kirkpatrick, Hugh, Arts and Sciences (1961-1992).
Klammer, Thomas, Business (1970-2007).
Kowalski, Jacek, Arts and Sciences (1989-2014).
Kuiper, John, Arts and Sciences (1987-1998).
Kuss, Malena, Music (1976-1999).
LaPoint, Thomas, Arts and Sciences (1999-2014).
Landreth, Garry, Education (1966-2001).
Larson, George, Arts and Sciences (1970-2000).
Lee, James Ward, Arts and Sciences (1958-1999).
Leung, Paul, Public Affairs and Community Service (1999-2015).
Lewis, Paul, Arts and Sciences (1970-2005).
Linebarger, James Morris, Arts and Sciences (1963-1996).
Lowe, Gale B., Business Administration (1965-1995).
Lundsteen, Sara, Education (1977-1999).
Luttrell, H. Dale, Education (1970-2007).
Mackey, James, Arts and Sciences (1969-1999).
Mahoney, James H., Education (1956-1982).
Marcello, Ronald E., Arts and Sciences (1967-2009).
Martin, Barbara, Library and Information Science (1984-2010).
Martin, Charles B., Arts and Sciences (1964-1999).
Martin, Cora, Community Service (1967-1992).
Masaracchia, Ruthann, Arts and Sciences (1990-2002).
Mason, Diana, Arts and Sciences (2001-2012).
Matteson, Samuel, Arts and Sciences (1987-2014).
Mattil, Edward L., Arts and Sciences (1971-1985).
Mauldin, Richard D., Arts and Sciences (1977-2011).
McAlister, Edgar Ray, Business Administration (1963-2005).
McCallon, Earl, Education (1965-2000).
McCarter, R. William, Visual Arts (1968-2005).
McCoy, Jerry, Music (2000-2015).
McCroskey, Lenora, Music (1982-2009).
McDonald, James, Business (1976-2013).
McKee, Bill, Arts and Sciences (1978-2011).
McLeod, Pat, Education (1954-2000).
McNeill, Perry, Engineering (1994-2006).
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).
Morris, William, Business Administration (1971-2001).
Morrison, George, Education (1995-2015).
Morrisson, Clovis C., Jr., Arts and Sciences (1962-1997).
Moseley-Grady, Patricia, Education (1974-2002).
Nahrgang, Lee, Arts and Sciences (1965-2007).
Nash, Jerry, Arts and Sciences (1997-2007).
Neeley, Paden, Business Administration (1960-2003).
Neuberger, John, Arts and Sciences (1977-2010).
Newsom, Herman A., Education (1962-1977).
Newsom, Ron, Education (1977-2011).
Newton, Connie, Visual Arts and Design (1989-2007).

Nichols, Margaret I., Library and Information Sciences (1956-1995).
Nichols, Martha, Arts and Sciences (1964-1997).
Nordstrom, Lyle, Music (2000-2010).
Norton, E. Douglas, Education (1971-2005).
Norton, Scott, Arts and Sciences (1963-2005).
Olsen, Solveig, Arts and Sciences (1968-2005).
deOnis, Carlos, Arts and Sciences (1968-1995).
Papich, George, Music (1967-2000).
Patton, Robert, Education (1973-2013).
Paz, Denis, Arts and Sciences (1995-2013).
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).
Poirot, James, Education (1976-2014).
Preston, Thomas R., Arts and Sciences (1982-2006); Dean.
Reban, Milan, Arts and Sciences (1967-2008).
Reynolds, Johnny Sue, Merchandising and Hospitality Management (1990-2006).
Rich, Carroll Y., Arts and Sciences (1959-1995).
Richards, Thomas, Business (1983-2004).
Richardson, Peggy, Education (1970-2001).
Riggs, James, Music (1973-2008).
Riney, Bobye J., Merchandising and Hospitality Management (1973-1991).
Rutherford, Paris, Music (1978-2009).
Sale, Richard B., Arts and Sciences (1965-1995).
Saleh, Farida, Arts and Sciences (1978-2005).
Sandefur, Walter Scott, III, Education (1962-2002).
Schafer, Rollie, Arts and Sciences (1976-2007).
Schietroma, Robert, Music (1977-1998).
Schol, Don, Visual Arts and Design (1969-2011).
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).
Simms, Richard L., Education (1970-2006).
Slater, K. Neil, Music (1981-2008).
Smallwood, J. B., Arts and Sciences (1965-2000).
Smith, Don W., Arts and Sciences (1967-2011).
Smith, Howard, Education (1969-1997); Acting President.
Smith, John, Arts and Sciences (1964-1993).
Spence, J. Wayne, Business (1980-2010).
Sprague, D. Jack, Visual Arts and Design (1990-2010).
Staples, Donald, Arts and Sciences (1979-2004).
Stephens, Elvis Clay, Business Administration (1963-1999).
Stern, Laura, Arts and Sciences (1994-2014).
Stevens, L. Robert, Arts and Sciences (1963-1998).
Summers, Patricia, Arts and Sciences (1967-2002).
Sundquist, David, Music (1989-2009).
Sybert, Jim, Arts and Sciences (1956-2002).
Tanner, Fred, Education (1968-1987).
Tanner, James T.F., Arts and Sciences (1965-2012).
van Tassel, Frances, Education (1993-2010).
Taylor, Elmer, Visual Arts (1974-2013).
Taylor, Glen L., Business Administration (1953-1998).
Teeter, C. Russ, Education (1967-2006).
Terrell, Sandra, Arts and Sciences (1979-2011).
Thompson, John, Arts and Sciences (1967-1995).
Thornton, John H., Business (1971-2006).
Tipps, Steve, Education (1992-2002).

Totten, Herman, Information (1977-2015).
Toulouse, Robert B., Education (1948-1985); Provost.
Turner, Elizabeth, Arts and Sciences (2002-2016).
Turner, J. William, Education (1961-1998).
Turner, Philip, Library and Information Sciences (1969-2011).
Vanecek, Michael T., Business Administration (1978-2006).
Vann, J. Don, Arts and Sciences (1964-1999).
Veazey, Charles O., Music (1973-2011).
Vela, Roland, Arts and Sciences (1965-2000).
Vidrine, Donald, Arts and Sciences (1968-1998).
Walker, Myra, Visual Arts and Design (1987-2015).
Waller, William, Arts and Sciences (1989-2009).
Warner, Roger, Music (1976-2006).
Washington, Roosevelt, Jr., Education (1974-1996).
Watson, Hoyt F., Education (1976-1998).
Watson, Jack, Education (1956-1995).
Weinstein, Bernard, Public Affairs and Community Service (1989-2009).
Wells, Richard, Journalism (1979-2009).
Wenrich, Wesley, Arts and Sciences (1970-1993).
Westmoreland, Reginald, Arts and Sciences (1963-1998).
Wheeless, Lawrence, Arts and Sciences (1993-2004).
Wilhelm, Ronald, Education (1991-2013).
Williams, Fred, Business (1968-2007).
Williamson, John, Education (1968-2006).
Wilson, William, Arts and Sciences (1968-2001).
Wright, Eugene P., Arts and Sciences (1966-2006).
Wu, Fred, Business Administration (1993-2005).
Yeric, Jerry L., Arts and Sciences (1970-2002).
Youngblood, Judy, Visual Arts (1976-1997).
Zimmerman, Earl, Arts and Sciences (1970-2009).

Dates indicate years at UNT.

## Emeritus librarians

Bradley, Lou Ann (1974-2010).
Galloway, Margaret E. (1967-1997).
*Grose, B. Donald (1988-2009).
**Kelly, Melody (1974-2009).
Lavender, Kenneth (1981-2001).
Martin, Morris (1971-2013).
Mitchell, George D. III (1968-1997).

* Dean Emeritus
**Associate Dean Emeritus

Dates indicate years at UNT.

## President emeritus

V. Lane Rawlins (2010-2014).

## 'Fessor Graham award

The most recent winner of the 'Fessor Graham Award is Michael Thompson, Senior Lecturer in Philosophy and Religion.

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, 2015
Michael Thompson, 2016

## Accrediting institutions

The University of North Texas is accredited to award bachelor's, master's and doctoral degrees by the following:
The Southern Association of Colleges and Schools Commission on Colleges

1866 Southern Lane
Decatur, GA 30033-4097
404-679-4500
www.sacscoc.org

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

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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

Computing Accreditation Commission and Technology Accreditation Commission
111 Market Place, Suite 1050
Baltimore, MD 21202
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

## Accreditation Council for Cooperative Education (ACCE)

Stevens Institute of Technology Castle Point
Hoboken, NJ 07030
201-216-8228
www.co-opaccreditation.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.ku.edu/~acejmc

## American Chemical Society

Committee on Professional Training
1155 Sixteenth Street NW
Washington, DC 20036
800-227-5558
www.chemistry.org

## American Library Association

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

## American Psychological Association

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, Inc.
1219 South Park Street
Kalamazoo, MI 49001
269-492-9310
www.abainternational.org
Commission on English Language Program Accreditation (CEA)

1725 Duke Street, Suite 500
Alexandria, VA 22314
703-519-2070
www.cea-accredit.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

146 Monroe Center NW, Suite 1318
Grand Rapids, MI 49503-2822
616-458-0400
www.accredit-id.org

## Council on Rehabilitation Education (CORE)

1699 Woodfield Rd., Suite 300
Schaumburg, IL 60173
847-944-1345
www.core-rehab.org

## Council on Social Work Education

1725 Duke Street, Suite 500
Alexandria, VA 22314-3457
703-683-8080, ext. 205
www.cswe.org

## Forensic Science Education Programs

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Accreditation Commission
410 North 21st Street
Colorado Springs, CO }8090
719-636-1100
www.aafs.org
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## National Association for the Education of Young Children (NAEYC)

1509 16th Street NW
Washington, DC 20036-1426
800-424-2460
www.naeyc.org

National Association of Schools of Art and Design

11250 Roger Bacon Drive, Suite 21
Reston, VA 20190
703-437-0700

National Association of Schools of Music

11250 Roger Bacon Drive, Suite 21
Reston, VA 20190
703-437-0700
nasm.arts-accredit.org
National Association of Schools of Public Affairs and Administration

1120 G Street NW, Suite 730
Washington, DC 20005
202-628-8965
www.naspaa.org

National Council for Accreditation of Teacher Education (NCATE)

2010 Massachusetts Avenue NW, Suite 500
Washington, DC 20036-1023
202-466-7496
www.ncate.org

National Recreation and Park Association/American Association of Leisure and Recreation (NRPA/AALR)
Council on Accreditation
22377 Belmont Ridge Road
Ashburn, VA 20148-4501
703-858-0784
www.nrpa.org

State Board for Educator Certification

1701 North Congress Avenue, 5th Floor
Austin, TX 78701
888-863-5880
www.tea.state.tx.us

## How to read courses

## Course Numbering System

Freshman courses, 1000-1999.
Sophomore courses, 2000-2999.
Junior courses, 3000-3999.
Senior courses, 4000-4999.
Graduate courses, 5000 and above.

The graduate student enrolled in a 5000-level course that meets with a senior-level undergraduate course will be expected to complete additional requirements beyond those expected of undergraduates in the same course.

Special Problems Courses (2900, 2910, 4900 and 4910) are used upon approval of the department chair or dean for individual instruction in any department to cover course content in special circumstances. Courses 5900, 5910, 5920 and 5930 are used in any department that offers graduate work; courses 6900 and 6910 are used in any department that offers doctoral work.

Experimental Courses (1980, 2980 and 4980) are new courses offered on a trial basis for 1-4 hours credit each. Registration is permitted only upon approval of the department chair.

Honors College Capstone Thesis (4951) allows a student in the Honors College to complete an honors thesis as a course within the student's major. The Honors College Capstone Thesis is a major research project prepared by the student with the mentorship of a faculty member in the student's major department. An oral defense is required for successful completion of the thesis

Advanced Courses (numbered 3000 to 4999) are open to students who have 12 semester hours of credit in a given subject or who have the indicated prerequisites, and to those without the prerequisites who have the consent of the department. In some instances, college/school/departmental requirements may vary. Students should consult individual areas prior to enrolling in advanced courses.

## General Course Information

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 offerings if the number of registrants is too small to justify conducting the course. Students interested in a particular course during a particular period should inquire in advance and/or consult the applicable online Schedule of Classes at registrar.unt.edu.

Figures in parentheses following the course credit hours indicate the number of clock hours per week devoted to lecture and laboratory. When it appears, the third and final number in these parentheses indicates the number of recitation hours per week. Specific information regarding courses within a particular department is located immediately before the course listings.

Graduate course listings and descriptions are found in the Graduate Catalog.

## Prerequisite

A prerequisite is a course or other preparation that must be completed before enrollment in another course. All prerequisites are included in catalog course descriptions.

## Semester Hour

A semester hour is the unit of credit at UNT; the credit allows for 1 lecture hour a week for 15 weeks or the equivalent.

## Texas Common Course Numbering System

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 throughout Texas. Common courses are freshman and sophomore academic credit courses that have been identified as common by institutions that are members of the common course numbering system. The system ensures that if the
student takes a course the receiving institution designates as common, then the course will be accepted in transfer and the credit will be treated as equivalent to the course offered by the receiving institution.

The TCCNS chart lists the courses that the associate deans at UNT have identified as common and their TCCNS equivalents. Students wishing to transfer a course that is not listed should obtain approval from the department of their intended major prior to taking the course. The student's academic dean determines applicability of the credit to a degree program. Before using this table, students should be sure that the institution they attend employs the TCCNS.

Common course numbers shown on this list as equating to 3000-level (upper-division) courses at UNT will transfer as equivalent courses, but will not be counted as upper-division credit.

Information provided is subject to change without notice and does not constitute a contract between UNT and a student or applicant for admission. Transfer credit is subject to audit during a student's academic career at UNT. Total hours accepted may be increased or decreased to reflect correction of prior evaluation or consideration of additional transfer work to ensure compliance with UNT academic policies.

Prospective transfer students should contact the department of their intended major for course work guidelines prior to enrollment. The most current version of the common course numbering system course equivalents for UNT is available from the Office of Admissions.

The TCCNS numbers, when applicable, are indicated in parentheses below the UNT course number and title in the course description, except when two UNT courses are required to meet a TCCNS equivalent. See "How to Read Course Descriptions" in this section for an example. Grade points earned at other institutions are excluded in the computations of the UNT cumulative grade point average, but transfer hours accepted are included in determining the classification and minimum required level of performance. Additional information concerning academic status is available from the offices of the academic deans. Additional courses may be equivalent but are not listed as being a part of TCCNS, contact the academic dean of your major at UNT for advising.

Students enrolled at UNT must secure their dean's approval to enroll concurrently in another college or university. Failure to obtain advance approval may result in the refusal of the university to accept such work in transfer.

For academic advising at the University of North Texas contact the college/school of your major:
Honors College, 940-565-3305
College of Arts and Sciences, 940-565-2051
College of Business, 940-565-2110
College of Education, 940-565-2736
College of Engineering, 940-565-2051
College of Information, 940-565-2445
Frank W. and Sue Mayborn School of Journalism, 940-565-2205
College of Merchandising, Hospitality and Tourism, 940-565-2436
College of Music, 940-565-2791
College of Public Affairs and Community Service, 940-565-4664
College of Visual Arts and Design, 940-565-2216

## How to Read Course Descriptions

Note: A sample has been compiled to identify different components of the course description and does not accurately reflect an existing course. Explanations are given below the example. Not all course descriptions include every component shown in the following example.

## Example from Catalog:

## ENGL 1320 - College Writing II

(ENGL 1302)
3 hours (3;0;1)

Prerequisite(s): ENGL 1310 or equivalent.
Corequisite(s): ENGL 1210 or consent of department.

Same as COMM 1320.

Core Category: Communication (English Composition and Rhetoric)

## Explanation of Example:

ENGL is the course prefix. 1320 is the course number. The text in parentheses, (ENGL 1302) is the Texas Common Course Numbering System (TCCNS) common number, explained under "Texas Common Course Numbering System." College Writing II is the title of the course. $\mathbf{3}$ hours represents the number of semester credit hours earned. ( $\mathbf{3 ; 0 ; 1} \mathbf{1}$ ) shows that 3 hours will be spent in lecture, 0 hours will be spent in laboratory, and 1 hour will be spent in recitation. Continuation of ENGL 1310. Writing in response to reading and research. Emphasis on perfecting texts through several drafts is the course description. Prerequisite(s): ENGL 1310 or equivalent explains that ENGL 1310 must be completed prior to enrolling in ENGL 1320. Corequisite(s): ENGL 1210 or consent of department shows that ENGL 1210 must be completed before or while enrolled in ENGL 1320. Core Category: Communication (English Composition and Rhetoric) refers to the "University Core Curriculum Requirements" in the Academics section of this catalog. Same as COMM 1320 indicates that ENGL 1320 and COMM 1320 are cross-listed. Cross-listed courses are the same course, offered under two different prefixes.

## 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. Students may not retake this course once they have completed (with a C or better) a course for which this is a prerequisite.

## 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.

## ACCT 2900-Special Problems

1-3 hours.

Prerequisite(s): None.

## 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.

## 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.

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.

## 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. ACCT 3405 may be taken concurrently with ACCT 3120 .

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.

## 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.

## 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 selfimprovement. 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.

Prerequisite(s): ACCT 3110 with a grade of C or better.
May not be taken more than twice at UNT.

## 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 only be taken once for Honors College credit.

## 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.

Corequisite(s): ACCT 3120.

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.)

## ACCT 4130 - Financial Statement Analysis

3 hours

Ratio analysis and interpretation of balance sheet and income statement data. Account classifications and income measurements; company ratios, trends and present position; development of industry standards and status of business indicators as a guide for economic forecasts.

Prerequisite(s): ACCT 2010 and ACCT 2020 with grades of C or better; ECON 1100 and ECON 1110; BCIS 2610.

Not open to accounting majors. 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.

## ACCT 4140 - Advanced Accounting Principles

3 hours

Problems connected with income determination and equity accounting, and consolidated statements; domestic and foreign branches, and international accounting; statement of affairs; fiduciaries; actuarial science.

Prerequisite(s): ACCT 3120 with a grade of C or better.

May not be taken more than twice at UNT.

## ACCT 4270 - Advanced Cost Accounting

3 hours

Nature, measurement and analysis of accounting data appropriate to managerial decision making, and comprehensive budgeting; statistical cost estimation; cost-volume-profit analysis; gross profit analysis; application of probability to cost control; capital planning. PERT-cost.

Prerequisite(s): ACCT 3270 with a grade of C or better.

May not be taken more than twice at UNT.

## 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 with grades of C or better.

May not be taken more than twice at UNT. (This course may be taken during the junior year.)

## 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.

## ACCT 4410-Auditing - Evidence

3 hours

The investigation of accounting information. This is an introductory course in all aspects of the investigative process in auditing. Topics include evaluation in internal control, compliance testing, substantive testing, operational audits, statistical sampling and auditing EDP.

Prerequisite(s): ACCT 4400 with a grade of C or better.

May not be taken more than twice at UNT.

## ACCT 4420 - International Accounting

3 hours

Integrates the functional areas of accounting and demonstrates how accounting relates to the disciplines in the College of Business core. Crossfunctional and global approaches to organizational issues are emphasized. Enhances the ability of students to think critically, and to develop knowledge, skills, and attitudes necessary to compete effectively in the global business world. Topics covered include: multinational strategy, global perspectives in accounting, environmental, social and political influences on accounting, accounting information systems in a multinational enterprise, performance evaluation in a multinational enterprise, and the exploration of timely topical issues such as NAFTA, the European Union, and the globalization of securities markets.

Prerequisite(s): ACCT 4100 with a grade of C or better.

May not be taken more than twice at UNT.

## 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.

## ACCT 4900-Special Problems

1-3 hours

Prerequisite(s): None.

## ACCT 4910 - Special Problems

1-3 hours

Prerequisite(s): None.

## 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.

## Aerospace Studies

## AERO 1030 - The Foundation of the United States Air Force

1 hour (1;1;1)
Survey of the structure and missions of Air Force organizations; officership and professionalism; and an introduction to communication skills.

Prerequisite(s): None.

AERO 1040 - The Foundation of the United States Air Force

## 1 hour (1;1;1)

Survey of the structure and missions of Air Force organizations; officership and professionalism; and an introduction to communication skills.
Prerequisite(s): None.

## AERO 2030 - The Evolution of the U.S.A.F. Air and Space Power

## 1 hour (1;1;1)

Historical survey of the evolution of United States Air Force air and space power, from the earliest beginnings to the present. Includes an assessment of communication skills.

Prerequisite(s): None.

AERO 2040 - The Evolution of the U.S.A.F. Air and Space Power

## 1 hour (1;1;1)

Historical survey of the evolution of United States Air Force air and space power, from the earliest beginnings to the present. Includes an assessment of communication skills.

Prerequisite(s): None.

## AERO 2920-Cooperative Education in Aerospace Studies

1-3 hours

Supervised work in a job or project directly related to the student's major, professional field of study or career objective.

Prerequisite(s): Student must meet employer's requirements and have consent of department chair.

May be repeated for credit.

## AERO 3310-Leadership Studies

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4 hours (3;1;1)
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Study of leadership and management fundamentals, professional knowledge, leadership ethics and communication skills required of an Air Force officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied.

Prerequisite(s): None.

## AERO 3320 - Leadership Studies

## 4 hours (3;1;1)

Study of leadership and management fundamentals, professional knowledge, leadership ethics and communication skills required of an Air Force officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied.

Prerequisite(s): AERO 3310.

## AERO 4310 - National Security Affairs/Preparation for Active Duty

## 4 hours (3;1;1)

Examines the need for national security, analyzes the evolution and formulation of the American defense policy, strategy, and joint doctrine; investigates the methods for managing conflict; and overview of regional security, arms control and terrorism. Special topics of interest focus on the military as a profession, officership, the military justice system, civilian control of the military, preparation for active duty, and current issues affecting military professionalism.

Prerequisite(s): AERO 3310, AERO 3320.

## AERO 4320 - National Security Affairs/Preparation for Active Duty

## 4 hours (3;1;1)

Examines the need for national security, analyzes the evolution and formulation of the American defense policy, strategy, and joint doctrine; investigates the methods for managing conflict; and overview of regional security, arms control and terrorism. Special topics of interest focus on the military as a profession, officership, the military justice system, civilian control of the military, preparation for active duty, and current issues affecting military professionalism.

Prerequisite(s): AERO 3310, AERO 3320, AERO 4310.

## AERO 4920-Cooperative Education in Aerospace Studies

## 1-4 hours

Supervised work in a job or project directly related to the student's major, professional field of study or career objective.

Prerequisite(s): 12 hours credit in aerospace studies; student must meet employer's requirements and have consent of department chair.

May be repeated for credit.

## 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.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

## ANTH 1100 - World Cultures

3 hours

Introduction to the ways humans, past and present, have thrived in three different cultural worlds: tribal, imperial and commercial, including the interaction between people and their environments and the role of social power in determining the forms that human cultures have taken through history into the present day. Focuses on capitalism as a cultural form and examines its impacts on societies and groups in our increasingly interdependent world.

Prerequisite(s): None.

Core Category: Component Area Option

## 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.

Prerequisite(s): None.

Core Category: Component Area Option

## ANTH 2035 - Urban Poverty

3 hours

Poverty is an increasing phenomenon in the modern world. This course surveys the history and development of poverty in the western world with concentration on the problems of poverty in modern urban America. The course emphasizes the research of ethnographers in an attempt to help students understand the genesis and basis for the problem of poverty in U.S. cities. A holistic anthropological analysis is used to help explain this growing problem and its ramifications for the larger society.

Prerequisite(s): ANTH 1010 or consent of department.

## ANTH 2070 - Introduction to Race and Ethnic Relations

3 hours

Introductory examination of the basic theories within current and historical race and ethnic relations. Includes examination of evidence of
continuing prejudice, institutional discrimination and modern forms of racism. Other topics include assimilation, pluralism, contact hypothesis, anti-racism, immigration, segregation and racial identity.

Prerequisite(s): None.

Same as SOCI 2070.

Required for all ethnic studies minors.

Core Category: Component Area Option

## ANTH 2200-Gender in Cross-Cultural Perspective

3 hours

The construction of both masculinity and femininity in cross-cultural contexts. Also central are the issues and debates important within the last three decades of feminist anthropology that speak to the questions posed by widespread gender asymmetry and yet the abundant cultural diversity in the expression of gender ideology, roles and relations worldwide. The impact of the globalizing trends of capitalism and neocolonialism is addressed in terms of its impact of changing gender roles both in the first and third worlds.

Prerequisite(s): None.

Core Category: Component Area Option

## 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.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

## ANTH 2700 - Introduction to Physical Anthropology

(ANTH 2401)

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.

Prerequisite(s): None.

Same as BIOL 2700.

Core Category: Life and Physical Sciences

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.

## ANTH 3101-American Culture and Society

3 hours

Culture, cultural diversity and multiculturalism constitute some of the most significant social issues in America today. Oriented around the core concept of culture and cultural groups; designed to introduce the student to the basic concepts of culture and cultural diversity and develop an awareness and appreciation for the full range of diversity in the American (U.S.) culture. Special time and attention devoted to the origins, development and consequences of the diversity that plays such a central role in the lives of people in this nation-state culture.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

## 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 onedimensional 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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

## 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.

Prerequisite(s): None.
Core Category: Language, Philosophy and Culture

## 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 blacks 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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

## ANTH 3200-Peoples and Cultures of 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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

## 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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

## 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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

## 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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

## 3 hours

Course is part of a two-semester 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 are also covered: e.g. toxicology, entomology, DNA science, forensic geology/palynology and remote sensing.

Prerequisite(s): Consent of instructor.

Same as BIOL 3331.

## 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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

## 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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

## 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 macrolevel analyses are used to understand a wide range of issues of both historical and contemporary importance.

Prerequisite(s): None.

## 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 indepth background and understanding of the peoples and cultures of this area.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

May be repeated for credit as topics vary.

## 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 only be taken once for Honors College credit.

## 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.

Prerequisite(s): None.

## ANTH 4011 - Anthropological Field Methods

## 3 hours

Concentrates on the field methods of anthropology, in particular the various data gathering techniques, methods of analysis and field techniques of participant observation. In addition to acquiring the skills of the participant observation method, students gain an increased awareness,
understanding and appreciation of the problems associated with conducting research in cultures other than their own. Special attention is devoted to the interactional aspects of dealing with people from a variety of cultural backgrounds.

Prerequisite(s): None.

## 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 or consent of department.

## ANTH 4070 - Urban Ethnic Cultures

3 hours

Critical examination of how ethnic identity is experienced and articulated in the urban context, historically and contemporarily. Students are exposed to fundamental dynamics that influence the development and maintenance of ethnic cultures in cities by drawing on key concepts from anthropology and urban studies, to include: how ethnic and racial relations are socially structured in the United States; the symbolic materials and mediums through which people express a sense of ethnic identity and belonging (music, dress, dance and stories); and how these expressive cultures unfold in urban settings, both shaped by and reconstituting city life.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): ANTH 1010 or ANTH 2300, or consent of department.
May be repeated for credit as topics vary.

## ANTH 4750-Culture Change

3 hours

Examines cultural change on the broad level of human evolution and the more specific level of directed change. Emphasis is placed on gaining an understanding of the interactional and multicultural aspects of directed culture change in all human groups.

Prerequisite(s): ANTH 1010 or consent of department.

## ANTH 4751 - The Supernatural: Magic, Witchcraft and Religion

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.

Prerequisite(s): ANTH 1010 or consent of department.

## 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.

Prerequisite(s): None.

May be repeated for credit up to a total of 15 hours.

## ANTH 4801 - Topics in Physical Anthropology

3 hours

Selected topics of interest and significance in physical anthropology. While this course is offered on a regular basis, particular topics are taught irregularly.

Prerequisite(s): ANTH 1010 or consent of department.
May be repeated for credit as topics vary.

## ANTH 4900- Special Problems

1-3 hours

Prerequisite(s): None.

Prerequisite(s): None.

ANTH 4920-Cooperative Education in Anthropology

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 credit in anthropology; student must meet the employer's requirements and have consent of the institute director.

May be repeated for credit.

## 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.

## Applied Economics

## AECO 4080 - Principles of Economic and Community Development

3 hours

Presents a broad, interdisciplinary perspective on the local and regional economic development process. Topics include economic base analysis, industrial targeting and recruitment, tax incentives and economic impact analysis.

Prerequisite(s): None.

AECO 4090-The Political Economy of Texas

3 hours

Interdisciplinary survey of the demographic, political and economic forces influencing Texas' emergence as a modern industrial state. Topics include Texas' fiscal and regulatory environments, human capital needs, and relationship with the federal government

Prerequisite(s): None.

## Applied General Music

## MUAG 1001 - Piano Class for Non-Music Majors

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1 hour (0;3)
Fundamentals of keyboard technique for beginning piano students: level I (non-major).
Prerequisite(s): None.
MUAG 1002 - Piano Class for Non-Music Majors
1 hour (0;3)
Fundamentals of keyboard technique for beginning piano students: level II (non-major).
Prerequisite(s): None.
MUAG 1011-Keyboard Skills for Music Majors
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(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.

Prerequisite(s): None.

## 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).

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).

## 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).

MUAG 1102 - Brass Class
(MUSI 1168)

1 hour (0;3)
Trumpet, trombone, French horn and tuba; general brass pedagogy; and acquiring ability to play simple melodies and scales.
Prerequisite(s): None.

May be repeated for credit.

## 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.

## MUAG 1117 - Percussion Class

(MUSI 1188)
1 hour (0;3)

All major percussion instruments; proper playing techniques and methods for teaching fundamentals.

Prerequisite(s): None.
May be repeated for credit.

MUAG 1121 - Strings Class
(MUSI 1190)

1 hour (0;3)

Basic techniques of violin, viola, cello and bass.
Prerequisite(s): None.

May be repeated for credit.

MUAG 1124 - Voice Class for Non-Music Majors
(MUSI 1183)

1 hour (0;3)
Fundamentals of correct breathing, tone production and diction.

Prerequisite(s): None.
For non-music majors with little or no previous voice training. May be repeated for credit.

MUAG 1125-Woodwinds Class
(MUSI 1166)

1 hour (0;3)
Basic technique and general pedagogy of flute, oboe, clarinet, bassoon and saxophone.

Prerequisite(s): None.

May be repeated for credit.

## MUAG 1202 - Brass Class

(MUSI 2168)
1 hour (0;3)

Trumpet, trombone, French horn and tuba; general brass pedagogy; and acquiring ability to play simple melodies and scales.

Prerequisite(s): None.
May be repeated for credit.

MUAG 1207-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.

MUAG 1217 - Percussion Class
(MUSI 2188)

1 hour (0;3)

All major percussion instruments; proper playing techniques and methods for teaching fundamentals.
Prerequisite(s): None.

May be repeated for credit.

MUAG 1221 - Strings Class
(MUSI 2190)

1 hour (0;3)

Basic techniques of violin, viola, cello and bass.

Prerequisite(s): None.
May be repeated for credit.

## MUAG 1224 - Voice Class for Music Majors

1 hour (0;3)

Fundamentals of correct breathing, tone production, diction and basic vocal pedagogy

Prerequisite(s): None.

For instrumental music majors. May be repeated for credit.

MUAG 1225 - Woodwinds Class
(MUSI 2166)

1 hour (0;3)

Basic technique and general pedagogy of flute, oboe, clarinet, bassoon and saxophone.

Prerequisite(s): None.

May be repeated for credit.

## MUAG 1500-Occupational Health - Lessons from Music

3 hours

Explores occupational health through a society-behavior-biology nexus model. The primary focus is on gaining a practical understanding of occupational injuries including musculoskeletal problems from repetitive tasks, noise-induced hearing loss from overexposure to sound, mental health problems associated with competition at work and economic instability, and vocal health. Emphasis on personal and social responsibility, the impact of societal groups on injury prevention, and the development of lifetime wellness skills.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

## MUAG 1905 - English Diction for Singers

1 hour (2;0)
Diction/pronunciation skills for singing in English. Introduction to phonetic analysis of vocal music in English.

Prerequisite(s): None.

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.

## MUAG 1907-German Diction

1 hour (2;0)

Diction/pronunciation skills for singing in German; introduction to phonetic analysis of vocal music in German.

## MUAG 1909 - Italian Diction

1 hour (2;0)
Diction/pronunciation skills for singing in Italian; introduction to phonetic analysis of vocal music in Italian.

Prerequisite(s): MUAG 1905 or consent of instructor.

MUAG 2900-Special Problems

1-3 hours

Prerequisite(s): Consent of college.

## 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.

## MUAG 3240-Techniques of Piano Accompanying

3 hours

Review of sight-reading skills; repertoire from Italian anthology; simpler songs of Schubert, Schumann and Faure; arias. Concerto accompaniments from classic repertoire; discussion and demonstration of piano reductions.

Prerequisite(s): Consent of college.

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.

MUAG 3260 - Piano Literature

3 hours (3;0)
Bach through the early romantics. Survey of major composers, styles and forms; individual topics.

Prerequisite(s): None.

MUAG 3270 - Piano Literature

3 hours (3;0)

The late romantics to the present. Survey of major composers, styles and forms; individual topics.

Prerequisite(s): None.
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.

MUAG 3800 is a prerequisite for MUAG 3820 and MUAG 3870.

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.

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.

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.

MUAG 4002 - Student Teaching in Group Piano

3 hours (1;2)
Observation and supervised student teaching with an emphasis on group piano teaching.

Prerequisite(s): None.

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.

Prerequisite(s): None.

Meets with MUAG 5160.

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.

## 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.

Prerequisite(s): None.

## MUAG 4220 - Fundamentals of Singing-Acting Techniques

1 hour (1;2)

Introductory course to the process of singing-acting which clearly identifies all the parts of the total performing system - mind, emotions, body, face and voice - and presents a way of developing the power of each of those parts separately, and then integrating them in various combinations. Experiential learning course in which the student applies the techniques to his or her individual operatic repertoire or to assigned scenes from opera.

Prerequisite(s): 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.

May be repeated for credit.

## 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.

Prerequisite(s): None.

## 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): MUAG 1125 or MUAG 1225, or consent of college.

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.

Prerequisite(s): None.

May be repeated for credit as topics vary.

## 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.

Prerequisite(s): None.

May be repeated for credit as topics vary.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

## MUAG 4710 - Instrumental Studies Senior Recital Capstone

3 hours (1;0;2)

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 all College of Music Proficiency exams, including the Theory Proficiency Exam (TPE), Upper Division Exam (UDE), and Piano Proficiency Exam.

Individual instruction.

## MUAG 4711 - Keyboard Senior Recital Capstone

3 hours (1;0;2)

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 3501, MUAM 3502 or MUAM 3528 and consent of college. Successful completion of all College of Music Proficiency exams, including the Theory Proficiency Exam (TPE), Upper Division Exam (UDE), and Piano Proficiency/Score Reading Exam.

## MUAG 4712 - Voice Senior Recital Capstone

3 hours (1;0;2)
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 3503 and consent of college. Successful completion of all College of Music Proficiency exams, including the Theory Proficiency Exam (TPE), Upper Division Exam (UDE), and Piano Proficiency Exam.

## MUAG 4720 - Organ Service Playing

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.

## 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.

## 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

Prerequisite(s): None.
May be repeated for credit as topics vary.

## 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.

## 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.

## 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.

## 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.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

Core Category: Component Area Option or Language, Philosophy and Culture

## 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.

## AGER 3480 - Psychology of Adult Development and Aging

3 hours

Personality, cognitive, social and sensory-perceptual aspects of development from early adulthood through death. Emphasis is on the development of a comprehensive understanding of the adult portion of the life span.

Prerequisite(s): None.

Same as PSYC 3480.

## 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 only be taken once for Honors College credit.

## AGER 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): Advanced standing and consent of department.
Same as PSYC 4020.

## AGER 4060 - Therapeutic Activity Intervention and Aging

3 hours

Develops an awareness of the physiological, psychological, economic and sociological processes of aging that affect recreation and leisure behavior and involvement patterns. Emphasis is on age-related illness, disease, and disability and therapeutic activity intervention.

Prerequisite(s): AGER 4550/SOCI 4550 or equivalent recommended.

Same as RESM 4060.

## AGER 4250 - Topics in Gerontology

## 1-3 hours

In-depth analysis and discussion of selected significant subjects in aging.

Prerequisite(s): None.

May be repeated for credit as topics vary.

## AGER 4450 - The Family in Later Life

3 hours

Later stages in the family life cycle are surveyed with emphasis on changing family composition, role transitions and support systems.

Prerequisite(s): SOCI 1510 or equivalent.

Same as SOCI 4450.

## AGER 4500 - Long-Term Care Case Management with Older Adults

## 3 hours

Practitioner-oriented course focuses on the foundations of case/care management and the care management process as practiced with impaired elderly clients and their family caregivers. Topics include older client intake and assessment, establishing goals and a plan of care, coordinating and linking services and resources, and managing and monitoring care. Situations commonly encountered with at-risk elders are examined using protocols.

Prerequisite(s): None.

## 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.

## 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.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

## AGER 4700 - Women in Later Life

3 hours

Examination of the social, psychological and economic issues facing older women from historical, current and futuristic viewpoints. The course identifies historical forces that have shaped the status of older women, explores major issues of importance to older women today, and identifies issues and probable responses that will affect older women in the future.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

## AGER 4840 - Studies in Aging Field Practicum

3 hours

Field practicum (12 hours per week) in an agency or institution delivering services to the elderly; 170 clock hours in the field.
Prerequisite(s): AGER 3480, AGER 4550, AGER 4780. Senior standing in the applied gerontology program.

AGER 4850 - Studies in Aging Field Practicum

3 hours

Field practicum (12 hours per week) in an agency or institution delivering services to the elderly; 170 clock hours in the field

Prerequisite(s): AGER 3480, AGER 4550, AGER 4780. Senior standing in the applied gerontology program.

AGER 4870 - Social Research and Practice

3 hours

Principles and procedures; sources of data, techniques of collection and analysis, and statistical description.
Prerequisite(s): Junior or senior standing.

AGER 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.

Prerequisite(s): AGER 4870 or equivalent.

Same as SOWK 4880.

AGER 4900-Special Problems

1-3 hours

Prerequisite(s): None.

## AGER 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.

## 1-3 hours

Selected topics are developed in an institute format and are regularly scheduled.
Prerequisite(s): None.

May be repeated for credit as topics vary.

## Arabic

ARBC 1010 - Elementary Arabic
(ARAB 1311 or ARAB 1411 or ARAB 1511)
3 hours (3;2)

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): None.

ARBC 1020 - Elementary Arabic
(ARAB 1312 or ARAB 1412 or ARAB 1512)
3 hours (3;2)

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): ARBC 1010 or equivalent.

ARBC 2040 - Intermediate Arabic
(ARAB 2311)

3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): ARBC 1020 or equivalent.

ARBC 2050 - Intermediate Arabic
(ARAB 2312)
3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): ARBC 2040 or equivalent.

ARBC 2900-Special Problems

1-3 hours

Prerequisite(s): Consent of department.

## ARBC 2910-Special Problems

1-3 hours

Prerequisite(s): Consent of department.

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.

## 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.

## ARBC 4900-Special Problems

$1-3$ hours

Prerequisite(s): Consent of department.

ARBC 4910-Special Problems

1-3 hours

Prerequisite(s): Consent of department.

## 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.

Prerequisite(s): None.

Core Category: Life and Physical Sciences

## ARCH 2900-Special Problems

1-3 hours

Prerequisite(s): None.

## 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.

Prerequisite(s): ANTH 1010 or ANTH 2300 or ARCH 2800, or consent of department.

## 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.

Prerequisite(s): ARCH 2800 or consent of department.
May be repeated for credit as topics vary.

## 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.

Prerequisite(s): 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 Sciences.

## Art

## ART 1200-Art Appreciation

3 hours

Art elements and principles applied to forms of visual expression for art majors.

Prerequisite(s): None.

Core Category: Component Area Option

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): None.

For non-art majors only.
Core Category: Creative Arts or Component Area Option

## 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 1200 or ART 1300.

Core Category: Component Area Option or Creative Arts

ART 1440 - Design I
(ARTS 1311)

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.

Prerequisite(s): None.

Concurrent enrollment in lecture/laboratory components required.

ART 1450 - Design II
(ARTS 1312)

## 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.

Concurrent enrollment in lecture/laboratory components required.

## ART 1500 - Drawing I

(ARTS 1316)

3 hours (1;5)

Development of drawing skills based on art elements and concepts.

Prerequisite(s): None.
Concurrent enrollment in lecture/laboratory components required.

## ART 1510 - Drawing II

(ARTS 1317)

3 hours (1;5)

Further development of drawing skills. Complex perspective, figure studies, exploration of color, examination of contemporary and historic art, and development of independent research projects.

Prerequisite(s): ART 1500.

Concurrent enrollment in lecture/laboratory components required.

ART 2350-Art History Survey I
(ARTS 1303)

3 hours

Introduction to the development of Middle Eastern and European art forms from the earliest prehistoric cave paintings through the Gothic Cathedrals of the late Middle Ages.

Prerequisite(s): None.

## ART 2360-Art History Survey II

(ARTS 1304)

3 hours

Art from the 14th century to the present in Europe and America.

Prerequisite(s): None.

Core Category: Creative Arts

## ART 2900-Special Problems

$1-3$ hours
Prerequisite(s): Consent of instructor.
ART 2910 - Special Problems
1-3 hours
Prerequisite(s): Consent of instructor.
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.

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.

## ART 3825 - Honors Information Visualization

3 hours
A freehand drawing and analytical design course for non-art majors.

Prerequisite(s): Honors student status and consent of Honors College.

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 only be taken once for Honors College credit.

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, or consent of instructor.

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.

ART 4570 - Interdisciplinary Topics in Art

3 hours (0;0;3-6)

Study of advanced art topics, incorporating content related to multiple art disciplines. Topics include advanced issues in art direction/photography; typographic issues for fine artists; and parallels in art, culture and dress.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary.

ART 4800 - Art Studio

3 hours (0;6)

Developing additional competence in special areas.

Prerequisite(s): Advanced standing and consent of instructor; specific studio courses may require additional prerequisites.

All may be repeated for credit.

## ART 4813 - Computer Art Studio

3 hours (0;6)
Developing additional competence in special areas.

Prerequisite(s): Advanced standing and consent of instructor.

May be repeated for credit.

## ART 4900-Special Problems

1-3 hours

Prerequisite(s): Consent of instructor.

ART 4910 - Special Problems
$1-3$ hours

Prerequisite(s): Consent of instructor.

## 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.

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.

## Art Education and Art History

## AEAH 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.

Prerequisite(s): None.

AEAH 3750-Children and Art

3 hours

Exploration of the elements and principles of art; experimentation with a variety of art media as related to the theories of creative development and an appreciation of a variety of visual art forms. Concurrent enrollment in lecture/lab component required.

Prerequisite(s): Open to all majors outside of CVAD and IADS majors only.

Satisfies fine arts elective for elementary education majors.

## AEAH 3753 - Visual Arts Studies: Foundations of Visual Arts Studies

3 hours

Introduction to the field of art education.

Prerequisite(s): Partial field experience required.

## AEAH 3770-Visual Arts Studies: Computer Art Applications

3 hours (0;6)

Exploration of the role of computers as a tool in visual arts studies. Emphasis placed on the visual, conceptual and practical use of computers as a medium for making art and connections to the practice of art education.

Prerequisite(s): ART 1440, ART 1450, ART 1500 and ART 1510; or consent of instructor.

## AEAH 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 1200, ART 1300, or ART 1301; ART 2350 and ART 2360.

## AEAH 4750 - Visual Arts Studies: Constructing Visual Arts Practices

## 3 hours (3;3)

Child development theory and creativity examined in relation to contemporary practice in the elementary art classroom. Partial field experience component required.

## AEAH 4760 - Visual Arts Studies: A Global Examination of Aesthetics

3 hours

Cross-cultural examination of philosophical aesthetic issues in art, focusing on the relationship of art to culture.

Prerequisite(s): ART 2350, ART 2360, AEAH 3753.

## AEAH 4770 - Visual Arts Studies: Technology in the Visual Arts

3 hours (2;4)

Examination of how technology in the visual arts can enhance the acquisition and manipulation of knowledge and imagery. Focuses on legal, ethical and philosophical issues related to the use of technology and digital imagery in future careers and society. Apply search strategies. Create and modify solutions.

Prerequisite(s): AEAH 3753, AEAH 3770.

AEAH 4780 - Visual Arts Studies: Reflective Visual Arts Practices

3 hours (3;3)

Preadolescent and adolescent creative development and theory examined in relation to contemporary art-making practice in the secondary art classroom.

Prerequisite(s): AEAH 3753, AEAH 4750. Partial field experience required.

AEAH 4790 - Visual Arts Studies: Inquiry and Dialogue About Art

3 hours

Understanding and finding meaning in artworks and artifacts within an authentic context through inquiry-based models.

Prerequisite(s): AEAH 4750, AEAH 4760, AEAH 4770.

AEAH 4795 - Topics in Visual Arts Studies

3 hours

Selected topics related to the field of art education.

Prerequisite(s): AEAH 3753.

May be repeated for credit as topics vary.

AEAH 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 1200 or ART 1301; ART 2350 and ART 2360; must have degree audit on file; sophomore or junior status within major.

## AEAH 4801 - Topics in Art History

3 hours

Selected topics in the history of art.
Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360, or consent of instructor.

May be repeated for credit as topics vary.

## AEAH 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 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 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 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

AEAH 4804 - Medieval Art

3 hours

Art from fall of the Roman Empire to late Gothic international style.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

AEAH 4805 - Topics in Medieval Art

3 hours

Selected topics in Medieval art from the 3rd century through the 15th century.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

May be repeated for credit as topics vary.

AEAH 4806 - Topics in Renaissance Art

3 hours

Selected topics in art of the Renaissance.
Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

May be repeated for credit as topics vary.

AEAH 4807- Topics in Seventeenth-Century Art

3 hours

Selected topics in 17th-century art.
Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.
May be repeated for credit as topics vary.

## AEAH 4808 - Eighteenth-Century Art

3 hours

Survey of art from the 18th century.
Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 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 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.
May be repeated for credit as topics vary.

AEAH 4810 - Nineteenth-Century Art

3 hours
Survey of art of the 19th-century.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

AEAH 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 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

May be repeated for credit as topics vary.

## AEAH 4812 - Modernism and the Visual Arts 1890-1945

## 3 hours

Explores the relationship of works of "modern" visual art, including their development, interpretation, and use, as well as historical, social and cultural conditions of "modernity" in Europe and North and South America, ca. 1890-1945.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 4813 - Postmodernism and the Visual Arts 1945-Present

3 hours

Explores the relationship of postmodernism in the visual arts, including the development, interpretation, and use of postmodern works, as well as historical, social and cultural conditions of "postmodernity" globally, ca. 1945 to the present.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 4814 - Theories of Contemporary Art

3 hours

Selected theoretical and critical issues in recent art.
Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 4815 - History of Interiors and Furniture II

3 hours
Introduction to the design, function and use of interiors and furnishings from the 19th century to the present.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.
Not offered every term/semester.

AEAH 4816 - American Art

3 hours
Survey of American art, with an emphasis on new perspectives and current scholarship.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

AEAH 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 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

May be repeated for credit as topics vary.

## AEAH 4818 - Topics in Latin American Art

3 hours

Topics in Latin American art, ranging from the 16th century to 1945.
Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

May be repeated for credit as topics vary.

## AEAH 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 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor

May be repeated for credit as topics vary.

## AEAH 4820 - Pre-Columbian Art of Mesoamerica

3 hours

Art and architecture of the Pre-Columbian cultures of Mesoamerica.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 4821 - Topics in Pre-Columbian Art

3 hours

Selected topics in the Pre-Columbian art of the Americas.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

May be repeated for credit as topics vary.

## AEAH 4822-African Art

3 hours

Study of the aesthetics of art objects and artifacts from Sub-Saharan Africa and their relationship to the social, political, religious and economic factors that give rise to their cultural significance.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 4823 - Asian Art

3 hours

Survey of the art of India, China, and Japan from prehistoric to modern times, including architecture, sculpture, painting, ceramics and printmaking.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 4824 - Topics in Asian Art

3 hours

Selected topics in the arts of Asia.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.
May be repeated for credit as topics vary.

## AEAH 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 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

May be repeated for credit as topics vary.

## AEAH 4840 - Topics in the History of Crafts

3 hours

Selected topics in the history of crafts.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 4841 - History of Interiors and Furniture I

3 hours

Introduction to the design, function and use of furniture and interiors from prehistory through the 19th century.

Prerequisite(s): ART 1200 or ART 1301, ART 2350, and ART 2360 or consent of instructor.

Not offered every term/semester.

## AEAH 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 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 4843 - History of Photography

3 hours

Survey of the history of photography, including developments in photographic technologies, practices, theory and analysis.

Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 4844 - History of Prints

3 hours

Survey of the history of prints from the Renaissance to the 20th century.
Prerequisite(s): ART 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## AEAH 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 1200 or ART 1301; ART 2350, and ART 2360; AEAH 4800; 9 hours of advanced art history; senior status within major.

## AEAH 4899- Interdisciplinary Arts and Design Studies Capstone

3 hours

Capstone course for interdisciplinary art design studies majors. Advanced interdisciplinary study of art and design. Specific topics vary. Delivered as seminar consisting of assigned readings, class discussion, oral presentations and written research.

Prerequisite(s): ART 1200 or ART 1301; ART 1440, ART 1450, ART 1500, ART 1510, ART 2350, ART 2360, 6 hours of advanced art history, and 3 hours from IADS Menu 2.

## AEAH 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 1200 or ART 1301; ART 2350, and ART 2360 or consent of instructor.

## Astronomy

## PHYS 1052 - The Solar System

(PHYS 1404)

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.

Prerequisite(s): None.

Core Category: Life and Physical Sciences

## PHYS 1062 - Stars and the Universe

(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.

Prerequisite(s): None.

Core Category: Life and Physical Sciences

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

LGAV 3150 - Transportation Law, Public Policy and Regulatory Environment

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.

## LGAV 3510 - Private Pilot and General Aviation Concepts

3 hours

Mastery of baseline knowledge required of holders of the Private Pilot certificate. Focus is to learn and master the requirements specified in 14 CFR Part 141, appendix B, paragraph 3 necessary to pass the written examination portion of the Private Pilot certificate knowledge test.

Prerequisite(s): None.

## LGAV 3520 - Instrument Flying Concepts

3 hours

Mastery of the baseline knowledge required of the holders of the Instrument Rating certificate. Focus is to learn and master the requirements specified in 14 CFR part 141, appendix B, paragraph 3 to pass the written examination portion of the Instrument Rating knowledge test.

Prerequisite(s): LGAV 3510.

LGAV 3530-Commercial Pilot Concepts

3 hours

Mastery of the baseline knowledge required of the holders of the Commercial Certificate. Focus is to learn and master the requirements in 14 CFR part 141, appendix D, paragraph 3 to pass the written examination portion of the Commercial Certificate knowledge test.

Prerequisite(s): LGAV 3510.

## 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, LGAV 3140.

Capstone course to be taken during the last term/semester of course work.

## LGAV 4500 - Human Factors and Cockpit Resource Leadership

3 hours

Comprehensive inquiry into the Advanced Qualification Programs (AQP) used by air carriers to develop programs for the training of flight crews. Focus on Crew Resource Management (CRM) and Line of Flight Training (LOFT) with specific emphasis on avoiding errors, trapping errors before they are committed, and mitigating the consequences of errors.

Prerequisite(s): LGAV 3100, LGAV 3510, LGAV 3530.

Capstone course to be taken during the last term/semester of course work.

## 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.

## 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 as topics vary.

## 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.

## Behavior Analysis

## BEHV 2110 - Behavior Principles and Personal Relations

3 hours

Describes behavior principles that underlie social interactions among individuals. Identifies behavior patterns conducive to satisfying and socially productive interactions and patterns likely to be destructive to others as well as to oneself. Makes use of behavior principles to understand how behavior patterns change in relation to the behavior of others in the social environment. Students use behavior principles to understand the role of their own behavior in productive and in destructive interactions.

Prerequisite(s): None.

May not be substituted for any course required for major.

## BEHV 2300-Behavior Principles I

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.

Prerequisite(s): None.
Core Category: Social and Behavioral Sciences

## BEHV 2700 - Behavior Principles II

3 hours

Behavioral principles describing relations between behavior and antecedents. Principles of operant stimulus control, discrimination and generalization, stimulus equivalence and establishing operations are related to laboratory procedures, to occurrence in everyday life and to intervention techniques. Principles of respondent (Pavlovian) conditioning related to laboratory procedures, everyday occurrence and their applications in behavioral interventions.

Prerequisite(s): BEHV 2300 or BEHV 3150.

## BEHV 3000-Applied Behavior Analysis and Autism I: Basic Techniques

## 4 hours (3;1)

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, and complete extensive supervised practical training.

Prerequisite(s): BEHV 2300 or BEHV 3150.

## BEHV 3150-Basic Behavior Principles

3 hours

Basic principles underlying behavior change in all fields; experimental underpinnings of science of behavior; focus on the relations among events that account for the acquisition and maintenance of individual behavior.

Prerequisite(s): None.

## 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, magic, superstition, mystery illnesses, bogus therapies and pseudoscience. 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.

Prerequisite(s): None.

## BEHV 3440 - Data Collection and Analysis

## 4 hours (3;1)

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 2700; BEHV 2300 or BEHV 3150.

BEHV 3550-Behavior Change Techniques

4 hours (3;1)

Designing and implementing behavior change techniques. Topics include shaping, discrimination training, instructional and imitation training, and differential reinforcement. Behavior change techniques will be applied in such settings as classrooms, institutions, workshops and group homes and their effectiveness evaluated.

Prerequisite(s): BEHV 2700.

## BEHV 3660 - Survey of Applied Behavior Analysis Literature

3 hours

Comprehensive survey of recent literature in multiple areas of application. Topics include applications in classroom behavior, skill acquisition, developmental disabilities, rehabilitation, interpersonal behavior, autism, community behaviors, family interactions, organizational behavior management and others.

Prerequisite(s): BEHV 2300 or BEHV 3150.

## BEHV 3770 - Building Skills with Behavior Technology

4 hours (3;1)

Acquisition of complex repertoires for persons with developmental disabilities. Topics include selection of target behaviors, planning intervention procedures, evaluating results and ensuring maintenance of skills. Ethical and aesthetic considerations.

Prerequisite(s): BEHV 3440 or consent of instructor.

## 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 only be taken once for Honors College credit.

## 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 3000.

## BEHV 4010 - Functional Analysis and Problem Behavior

## 4 hours (3;1)

Introduction to function-based treatment approaches for problem behavior. Topics include anecdotal assessment, descriptive assessment, experimental analysis and various courses of treatment derived from functional assessment, with emphasis on the importance of consistency between procedures and the functional properties of problem behavior.

Prerequisite(s): BEHV 3440 or consent of instructor.

## BEHV 4310-Behavior Principles and Self-Management

## 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.

Prerequisite(s): BEHV 2300 or BEHV 3150.

## BEHV 4400 - 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): None.

## 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): Senior status and a minimum of 18 hours in behavior analysis.

## BEHV 4800 - Topics in Behavioral Applications

## 3 hours

Focus is on the complex relations between behavior and the environment in specific kinds of settings. Topics include applications in institutional settings and work environments in public and private sectors, business and industry.

Prerequisite(s): BEHV 2300 or BEHV 3150.
May be repeated for credit as topics vary.

## BEHV 4900 - Special Problems

1-3 hours

Prerequisite(s): Consent of instructor.

## 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.

## Bilingual and English as a Second Language Education

## 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.

## 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.

Prerequisite(s): None.
May be taken concurrently with EDBE 3480.

## 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.

Prerequisite(s): None.

May be taken concurrently with EDBE 3470.

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.

## 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.

## 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.

## 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.

## 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.

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.

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.

BIOC 3621 - Elementary 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): One term/semester of organic chemistry. Counts toward chemistry minor for biology majors when taken concurrently with BIOC 3622. For students needing one term/semester biochemistry course; admission to the biology/biochemistry major, or consent of department.

May not be used in the degree if credit is earned in BIOC 4540 or BIOC 4550.

## BIOC 3622 - Elementary Biochemistry Laboratory

1 hour ( $0 ; 4$ )

Laboratory techniques for BIOC 3621.

Prerequisite(s): None.

Corequisite(s): BIOC 3621.

May not be used in the degree if credit is earned in BIOC 4560.

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 only be taken once for Honors College credit.

## BIOC 4540 - Biochemistry

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): CHEM 2380 and admission to the biology/biochemistry major, or consent of department.
May not be used in the degree if credit is earned for BIOC 3621. May not be repeated at the graduate level as BIOC 5540

## 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): BIOC 4540 or consent of department.

May not be repeated at the graduate level as BIOC 5550.

## 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.

## 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): At least one of the following: BIOL 3510/BIOL 3520, BIOL 3451/BIOL 3452 or BIOC 4540.

Same as BIOL 4570.

May not be used to satisfy minor requirements in chemistry.

## BIOC 4580 - Molecular Biology and Biotechnology Laboratory

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 .

## BIOC 4900-Special Problems

## $1-3$ hours

Prerequisite(s): CHEM 3220 or equivalent, and consent of directing professor.

## BIOC 4910-Special Problems

1-3 hours

Prerequisite(s): CHEM 3220 or equivalent, and consent of directing professor.

## 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.

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.

## 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.

## 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.

## 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.

Prerequisite(s): None.

Recommended for students interested in majors in the life sciences. Topics vary.

Core Category: Component Area Option

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.

Prerequisite(s): None.

This course may not be used to satisfy the laboratory science requirement for majors in the College of Arts and Sciences.

Core Category: Life and Physical Sciences

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.

Prerequisite(s): None.

May not be counted toward a major or minor in biology.

Core Category: Life and Physical Sciences

BIOL 1122 - Plant Biology

3 hours (3;3)

Plant structure and function; plant genetics, reproduction and development; role in ecosystems, agriculture and industry; food resources and human population. Includes laboratory.

Prerequisite(s): None.

May not be counted toward a major or minor in biology.

Core Category: Life and Physical Sciences

BIOL 1132 - Environmental Science
(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.

Prerequisite(s): None.
May not be counted toward a major or minor in biology.

Core Category: Life and Physical Sciences

BIOL 1142 - Microbes and Society

3 hours (3;3)

Survey of microbiology and the uses and the impacts of microorganisms on human society, including food, role in ecosystems, and disease. Includes laboratory.

Prerequisite(s): None.
May not be counted toward major or minor in biology.

Core Category: Life and Physical Sciences

## BIOL 1710 - Biology for Science Majors I

(BIOL 1306)
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): For students preparing for advanced study in the biological sciences.

Core Category: Life and Physical Sciences

## 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

BIOL 1720 - Biology for Science Majors II
(BIOL 1307)

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): For students preparing for advanced study in the biological sciences.
Core Category: Life and Physical Sciences

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

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.

Core Category: Component Area Option (when combined with BIOL 1755)

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.
Core Category: Component Area Option (when combined with BIOL 1750)

BIOL 1760 - Biology for Science Majors Laboratory

2 hours (0;5)

Laboratory techniques and research methods for introductory biology.

Prerequisite(s): Credit for or concurrent enrollment in BIOL 1710 or BIOL 1711 or BIOL 1720 or BIOL 1722.

BIOL 1761 - Honors Biology for Science Majors Laboratory

2 hours (0;5)

Laboratory techniques and research methods for introductory biology.

Prerequisite(s): Credit for or concurrent enrollment in BIOL 1711 or BIOL 1722.

BIOL 2041 - Microbiology
(BIOL 2321)

3 hours

Survey of the microbial world; classification, ecology, morphology and physiology of eukaryotic and prokaryotic microorganisms.

Prerequisite(s): BIOL 1710/BIOL 1730 ; CHEM 1420 (may be taken concurrently).

Corequisite(s): BIOL 2042.

## 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): CHEM 1420 (may be taken concurrently).

Corequisite(s): BIOL 2041.

## 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): BIOL 1710/BIOL 1720/BIOL 1760 or equivalent.

## 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): BIOL 1710/BIOL 1720/BIOL 1760 or equivalent.

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): BIOL 1710/BIOL 1720/BIOL 1760 or equivalent.

## BIOL 2301 - Human Anatomy and Physiology I

(BIOL 2301)
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.

Prerequisite(s): None.

Corequisite(s): BIOL 2311.

For kinesiology, dance majors and allied health students.
Core Category: Life and Physical Sciences

BIOL 2302 - Human Anatomy and Physiology II
(BIOL 2302)

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 and allied health students.
Core Category: Life and Physical Sciences

BIOL 2311 - Human Anatomy and Physiology I Laboratory
(BIOL 2101)

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): None.
Corequisite(s): BIOL 2301

For kinesiology, dance majors and allied health students.

BIOL 2312 - Human Anatomy and Physiology II Laboratory
(BIOL 2102)

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): None.

Corequisite(s): BIOL 2302
For kinesiology, dance majors and allied health students.

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.

Prerequisite(s): None.
Same as ANTH 2700.

Core Category: Life and Physical Sciences

BIOL 2900-Special Problems

1-3 hours

Individual readings and laboratory research projects in the biological sciences.
Prerequisite(s): None.

BIOL 2910 - Special Problems

1-3 hours

Individual readings and laboratory research projects in the biological sciences.

Prerequisite(s): None.

## 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.

## 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): 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; or consent of department.

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): 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; or consent of department.

## 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): BIOL 3800 or BIOL 4505.
Same as KINE 3080.

## BIOL 3150 - Conservation Biology Laboratory

1 hour (1;0;3)

Laboratory and discussion exercises focused on topics related to Conservation Biology.

Prerequisite(s): BIOL 3160 (may be taken concurrently).

## 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): 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; or consent of department.

## 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): 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; or consent of department.

## 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): CJUS 3330 or consent of department.
Same as ANTH 3331.

## BIOL 3350 - Human Heredity

3 hours

Study of the fundamental principles of human genetics.

Prerequisite(s): BIOL 1112.
May not be counted toward a major in biology. For education, kinesiology, health promotion and allied health majors.

## 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, health promotion and allied health majors.

BIOL 3381 - Medical Bacteriology

3 hours
Bacteria and disease; host-parasite relationships, immunology and epidemiology.

Prerequisite(s): BIOL 2041/BIOL 2042, CHEM 2380.

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): BIOL 3381 and CHEM 2380 (both may be taken concurrently).

## 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): 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; CHEM 2370 (may be taken concurrently); or consent of department.

## 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): BIOL 3451 (may be taken concurrently).

BIOL 3500-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.

Prerequisite(s): None.
Recommended as advanced 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. May not be counted for advanced division of science hours for the BA or BS in biology and biochemistry.

## 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): 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; completion of CHEM 2370 or CHEM 3601 (concurrent enrollment in CHEM 2380 strongly encouraged); or consent of department.

## BIOL 3520 - Cell Biology Laboratory

1 hour (0;2.5)
Laboratory studies emphasizing the isolation and characterization of subcellular organelles.

Prerequisite(s): BIOL 3510 (may be taken concurrently).

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): BIOL 2041/BIOL 2042 and BIOL 3350 or BIOL 3451/BIOL 3452.

## BIOL 3800 - Animal Physiology

3 hours

Cardiovascular, respiratory, renal, gastrointestinal, endocrine and neuromuscular function.

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; CHEM 1410/CHEM 1430; CHEM 1420/CHEM 1440; PHYS 1410/PHYS 1430 orPHYS 1510/PHYS 1530 or PHYS 1710/PHYS 1730; or consent of department.

## 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): CSCE 2050 or consent of instructor.
Same as CSCE 3850.

## 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.

## 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 only be taken once for Honors College credit.

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): 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; or consent of department.

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): 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 5005 .

## 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.

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): BIOL 1710 or BIOL 1711; BIOL 1720 or BIOL 1722; BIOL 1760 or BIOL 1761; BIOL 2140, or consent of department.

May not be repeated at the graduate level as BIOL 5050.

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): 6 hours of biological sciences.

May not be counted toward a BA or BS degree in biology.

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): 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 consent of department.

May not be repeated at the graduate level as BIOL 5051.

## 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): BIOL 4051 (may be taken concurrently) or consent of department.

May not be repeated at the graduate level as BIOL 5052.

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.

Prerequisite(s): Upper-level standing in the humanities or sciences.

Same as PHIL 4053.

## 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.

## BIOL 4055 - Ornithology

3 hours

Classification, distribution, ecology, adaptations, and behavior of birds. Emphasis on both local and global species.
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; or consent of department.

Same as BIOL 5055.

May not be repeated at the graduate level as BIOL 5055.

## BIOL 4056 - Ornithology Laboratory

1 hour (0;3)

Laboratory emphasis on field identification, behavior, and habitats of birds.
Prerequisite(s): BIOL 4055 (may be taken concurrently).

Same as BIOL 5056.

May not be repeated at the graduate level as BIOL 5056.

## BIOL 4070 - Insect Biology

4 hours (3;3)
Morphology, physiology, ethology, classification and control of insects and related arthropods.

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; or consent of department.

May not be repeated at the graduate level as BIOL 5070.

## BIOL 4080 - Radiation Safety

1 hour (1;0)
Radiation sources, interaction of radiation with matter and human tissues, radiation measurement and dosage, instrumentation, regulations and practical safety procedures. Meets state training requirements for use of radioactive isotopes or radiation producing equipment.

Prerequisite(s): 12 hours of biology, chemistry, or physics, or combination of the three.

Same as BIOL 5080.

May not be repeated at the graduate level as BIOL 5080.

## BIOL 4091 - Parasitology

3 hours

Biology, ecology and classification of animal parasites; immunology and physiology of host-parasite interaction.

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; or consent of department.

May not be repeated at the graduate level as BIOL 5091.

## 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).

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): 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; or consent of department.

May not be repeated at the graduate level as BIOL 5100.

## BIOL 4110 - Endocrinology

3 hours

Regulation of physiological processes in animals by hormones and related chemical agents.
Prerequisite(s): BIOL 3800 or BIOL 4505 or equivalent, or consent of department.

May not be repeated at the graduate level as BIOL 5110.

## 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): CHEM 1410/CHEM 1430; CHEM 1420/CHEM 1440; or consent of department.

May not be repeated at the graduate level as BIOL 5120.

BIOL 4130 - Economic Botany

3 hours

Distribution, production, history and botany of plants of economic importance.

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; or consent of department.

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): Microbiology and biochemistry or cell biology.

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 fiveweek summer session.

BIOL 4170 - Advanced Techniques in Microbiology and Molecular Biology Laboratory

2 hours (0;3)

Continuation of BIOL 4160 lab exercises.

Prerequisite(s): None.
Corequisite(s): BIOL 4160.

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): BIOL 2041/BIOL 2042, BIOL 3451/BIOL 3452; organic chemistry or consent of department.

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.

## BIOL 4190 - Techniques in Molecular Biology Laboratory

2 hours (0;3)
Continuation of BIOL 4180 lab exercises.

Prerequisite(s): None.
Corequisite(s): BIOL 4180.

BIOL 4201 - Immunology

3 hours

Immune defense mechanisms including immunobiology, immunochemistry, immunogenetics, immune response to infectious agents, allergy and autoimmune diseases.

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; CHEM 2380 (may be taken concurrently) or CHEM 3601; or consent of department.

May not be repeated at the graduate level as BIOL 5201.

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.

Prerequisite(s): None.

Corequisite(s): BIOL 4201.

May not be repeated at the graduate level as BIOL 5202.

## 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): BIOL 1720 or equivalent.

Open to all majors. May not be repeated at the graduate level as BIOL 5220.

BIOL 4221 - Experimental Methodologies in Neuropsychopharmacology

1 hour

Critical examination of scientific methodologies in studying the effectiveness of psychotropic medicine in treating mental disorders and other mental conditions. Students are expected to discuss and apply the methodologies to test hypotheses by presenting research findings reviewed in neuropsychopharmacological literature.

Prerequisite(s): BIOL 4220 or BIOL 4250 or consent of department.

May not be repeated at the graduate level as BIOL 5221.

## 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): BIOL 2301/BIOL 2302 or BIOL 3800 or BIOL 4505.

May not be repeated at the graduate level as BIOL 5230.

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): CJUS 3330, BIOL 3331, BIOL 3451/BIOL 3452; successful completion of a minimum of 60 semester hours; 8 hours organic chemistry; and admission to Forensic Science Certificate or consent of department.

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): 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; or consent of department.

May not be repeated at the graduate level as BIOL 5150.

## BIOL 4260 - Principles of Evolution

3 hours

Population genetics; ecological, geographical and historical concepts of evolution.

Prerequisite(s): BIOL 3350 or BIOL 3451/BIOL 3452, or equivalent.

May not be repeated at the graduate level as BIOL 5260.

## 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.

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): 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; or consent of department.

May not be repeated at the graduate level as BIOL 5280.

## 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): 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; CHEM 1420/CHEM 1440; or consent of department.

May not be repeated at the graduate level as BIOL 5290.

## 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): 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; or consent of department.

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): BIOL 2301/BIOL 2302 or BIOL 3800 or BIOL 4505.
May not be repeated at the graduate level as BIOL 5320.

## 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): 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; or consent of department.

May not be repeated at the graduate level as BIOL 5330.

## 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): 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; CHEM 1410/CHEM 1430; CHEM 1420/CHEM 1440; or consent of department.

## 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 toxilogical research literature.

Prerequisite(s): 8 hours each of biology and chemistry.

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): 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; CHEM 1410/CHEM 1430; CHEM 1420/CHEM 1440; or consent of department.

May not be repeated at the graduate level as BIOL 5380.

## 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): 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; or consent of department.

May not be repeated at the graduate level as BIOL 5400.

## 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): 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; or consent of department.

May not be repeated at the graduate level as BIOL 5520.

## 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 designed to teach techniques and test hypotheses related to environmental assessment.

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 consent of department.

May not be repeated at the graduate level as BIOL 5440.

## 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): BIOL 3451/BIOL 3452, BIOL 3510/BIOL 3520. Previous or concurrent enrollment in molecular biology or biochemistry recommended.

May not be repeated at the graduate level as BIOL 5460.

## BIOL 4480 - Medical Genetics

3 hours

Human genetics including cytogenetics, immunogenetics, population genetics, molecular genetics and human biochemical genetics.

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; BIOL 3350 or BIOL 3451/BIOL 3452; CHEM 2380 or CHEM 3601; or consent of department.

May not be repeated at the graduate level as BIOL 5840.

## BIOL 4501 - Bacterial Diversity and Physiology

3 hours

Comparative survey of bacteria. Growth, ecology, metabolism, energy transformations, differentiation and adaptive mechanisms.

Prerequisite(s): BIOL 1710 or BIOL 1711; BIOL 1720 or BIOL 1722; BIOL 1760 or BIOL 1761; BIOL 2041/BIOL 2042; CHEM 2370; or consent of department.

May not be repeated at the graduate level as BIOL 5501.

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.

BIOL 4503 - Plant Physiology

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): BIOL 1710 or BIOL 1711; BIOL 1720 or BIOL 1722; BIOL 1760 or BIOL 1761; BIOL 2041/BIOL 2042; or consent of department.

May not be repeated at the graduate level as BIOL 5503.

## BIOL 4504 - Plant Physiology Laboratory

1 hour (0;3)

Companion laboratory to BIOL 4503.

Prerequisite(s): BIOL 4503 (may be taken concurrently).

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): 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; or consent of department.

May not be repeated at the graduate level as BIOL 5505.

## 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).

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): BIOL 1710 or BIOL 1711; BIOL 1720 or BIOL 1722; BIOL 1760 or BIOL 1761; BIOL 2041/BIOL 2042; or consent of department.

## 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.

## BIOL 4560 - Aquatic Insects of North America

## 4 hours (3;4)

Ecology, sampling methods, systematics and classification of Neartic aquatic insects at the family level; use of keys and key terminology in aquatic insect identification.

Prerequisite(s): Invertebrate zoology or entomology, or consent of department.

May not be repeated at the graduate level as BIOL 5570.

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): At least one of the following: BIOL 3451/BIOL 3452, BIOL 3510/BIOL 3520 or BIOC 4540.
Same as BIOC 4570.

May not be used to satisfy minor requirements in chemistry.

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.

## 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): BIOL 4570 or BIOC 4570 or equivalent.

## 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): Junior standing and consent of department.

May be repeated as topics vary. The same topic may not be repeated at the graduate level as BIOL 5650 or BIOL 5670.

## 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): 18 hours of biology, completion of freshman and sophomore science courses required for certification and consent of department. EDSE 3500 and EDSE 4000 are highly recommended.

Students seeking secondary certification in mathematics or computer science who have completed the other science requirements of their majors also may enroll. Does not count as an elective toward a major or minor in biology, except for students seeking teacher certification.

## 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): 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; CHEM 1410/CHEM 1430; CHEM 1420/CHEM 1440; or consent of department.

May not be repeated at the graduate level as BIOL 5720.

## 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): 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; or consent of department.

May not be repeated at the graduate level as BIOL 5751.

BIOL 4752 - Neuroscience II: Brain and Plasticity

3 hours

Brain basis of motivation, sex, emotion, sleep, mental illness, memory; plasticity in developing and adult brain.

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; or consent of department. BIOL 4751 recommended.

May not be repeated at the graduate level as BIOL 5752.

BIOL 4760 - Neurobiology Laboratory

1 hour (0;3)

Vertebrate neuroanatomy and experimental neurobiology using electrophysiological and behavioral methods.
Prerequisite(s): BIOL 4751 (may be taken concurrently).
May not be repeated at the graduate level as BIOL 5760.

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): 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; or consent of department.

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.

## BIOL 4801 - Microbial Genetics

3 hours

Genetic structure, inheritance and gene expression in microorganisms and their viruses.
Prerequisite(s): BIOL 1710 or BIOL 1711; BIOL 1720 or BIOL 1722; BIOL 1760 or BIOL 1761; BIOL 2041/BIOL 2042; CHEM 2370; CHEM 2380 ; or consent of department.

Same as BIOL 5800.

Genetics is also recommended. May not be repeated at the graduate level as BIOL 5800.

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 biological sciences major status; or consent of department.

May not use both BIOL 4800 and BIOL 4805 toward the BS in Biology. May be used only toward capstone requirement or advanced electives in the BA with a major in biology.

## BIOL 4810 - Biocomputing

3 hours

Introduction to computational problems inspired by the life sciences and overview of available tools. Methods to compute sequence alignments, regulatory motifs, phylogenetic trees and restriction maps.

Prerequisite(s): CSCE 3850 or consent of department

Same as MATH 4810 and CSCE 4810.

BIOL 4820 - Computational Epidemiology

3 hours

Application of computational methods to problems in the fields of public health. Design and implementation of disease outbreak models.

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; or consent of department.

Same as CSCE 4820; taught with CSCE 4820/CSCE 5820.

## 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.

## 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.

## 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.

## 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.

## 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.

## BIOL 4940 - Honors Research in Biology

3 hours

Advanced original independent research supervised by a faculty member in the biological sciences.
Prerequisite(s): 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 applied to the biology requirements for the BA degree in biology.

## 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 be used only toward capstone requirement or advanced electives in the BA with a major in biology.

## 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.

## Biomedical Engineering

## BMEN 1300 - Discover Biomedical Engineering

3 hours (2;3)

Exploratory course in biomedical engineering (BMEN) which shapes the BMEN student's first year experience. Topics include experiences of practicing engineers; engineering ethics, professional conduct and values; and an introduction to the best practices in BMEN industry and research. The project is a major, team-based, competitive engineering design-and-build effort. The laboratory exercises and project teach students to think critically and creatively by applying a range of analysis techniques borrowed from many engineering and science disciplines.

Prerequisite(s): None.

Core Category: Component Area Option

## BMEN 2210 - Biomedical Circuits and Data Acquisition Best Practices

2 hours

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): BMEN 1300 or consent of department.

## BMEN 2320-Biomedical Instrumentation I

4 hours (3;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; ENGR 2405 or EENG 2610.

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.

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.

## 3 hours (2;3)

Introduction to an understanding of mammalian physiology and the engineering aspects of different physiological systems. Focuses on a number of organ systems that may include cardiovascular, respiratory and renal. Introduction to the basic concepts of human anatomy. The gross anatomical features of the body systems are presented together with the relevant developmental, histological, functional and clinical facts.

Prerequisite(s): BMEN 1300.

May not be applied to biology majors.

## BMEN 3311 - Biomedical Signal Analysis

3 hours

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.

## BMEN 3312 - Introduction to Biomechanics

## 3 hours

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): PHYS 1710, BMEN 2320.

## 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): None.

Corequisite(s): BMEN 3312.

## BMEN 4212 - Senior Design I

1 hour

Team biomedical engineering design project involving development of problem statement, alternative approaches for solution, product portfolio, specific system analysis and design.

Prerequisite(s): Senior standing.

Corequisite(s): BMEN 4310.

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.

## 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.

## 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.

## 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.

## 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.

## 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.

## Business

## BUSI 1200 - Careers and Professional Development Strategies for Business

1 hour

Introduces students to the process of business career exploration through integrating knowledge of self with knowledge of business career opportunities. Explores career opportunities within the disciplines of business (professional field choices) through a variety of sources. Introduces students to professional development activities and academic strategies/planning techniques that can work to enhance their business education and assist in timely completion of a business degree.

Prerequisite(s): None.

Pass/no pass only.

## 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.

Core Category: Component Area Option

## BUSI 2900 - Special Problems

1-3 hours

Prerequisite(s): None.

## BUSI 3400-Readings in Business

$1-3$ hours

Reading books influencing American business philosophy; reading for pleasure; study of current problems reported in business periodicals.
Prerequisite(s): None.

Credit varies depending upon amount and types of reading.

BUSI 4660 - International Business Operations

3 hours

Foreign operations of American firms and impact of foreign competition on the domestic market; organization for foreign production, marketing and finance; foreign markets, resources, institutions and managerial problems arising out of governmental relations.

Prerequisite(s): MKTG 3650, FINA 3770 and senior standing.

## 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.

Prerequisite(s): ACCT 2010 and ACCT 2020; MGMT 3330 or MKTG 3010 or BCIS 3615.

May be repeated for credit as topics vary, for up to 9 hours of credit.

## BUSI 4900-Special Problems

1-3 hours

Prerequisite(s): None.

## BUSI 4940 - Business Policy

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.

## 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.

## 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.

Prerequisite(s): MATH 1100 or higher (MATH 1180 preferred).

## 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.

## BCIS 3610 - Basic Information Systems

3 hours

Theory, capabilities, applications, benefits, liabilities 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.

## BCIS 3615 - Visual Display of Business Information

3 hours

Explores the use of visual display techniques and tools in the creation of electronic business documents and presentations. Stresses development of good written and oral presentation skills, as well as familiarity with a wide range of multimedia tools.

Prerequisite(s): BCIS 2610 or equivalent.

Core Category: Component Area Option

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).

3 hours

Introduction of abstract data types, inheritance, object identity, polymorphism 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 C or better in each previously taken BCIS course; or consent of department.

## BCIS 3680 - Enterprise-Oriented Programming

## 3 hours

Concepts of enterprise-level Java development such as graphical interfaces, JavaBeans, database services, and distributed systems as they relate to building object-oriented applications at the enterprise-level.

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.

## 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.

## 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 only be taken once for Honors College credit.

## 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.

## 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. 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.

## 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. 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.

## BCIS 4640 - Administrative Problems in Information Systems

3 hours

Advanced analysis of business information systems. An integrated investigation of business computer information systems programming and systems development concepts. Use of project management methodologies, concentration on tools and techniques, formal presentations and group dynamics.

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.

## BCIS 4650 - Visual Programming for Business Applications

3 hours

Business application design and development from the perspective of visual programming technologies. Emphasis on performance characteristics and user interface design considerations.

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.

## 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.

## 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.

## 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. 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.

## 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.

## BCIS 4700 - Problem Solving and Decision Making Process

3 hours

Study of the process of decision making, and the information requirements of decisions; decision support system tool selection and DSS applications development.

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.

## BCIS 4710-Object-Oriented Methodologies

3 hours
Examines the object-oriented paradigm and the analysis and design of information systems using object-oriented approaches.

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.

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. 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.

## 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.

## 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.

## BCIS 4800-Cooperative Education

$1-3$ hours

Supervised work in a job related to the student's career.
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.

Pass/no pass only. A maximum of 3 hours may be applied to elective work in the professional field with departmental approval.

## 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.

## 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.

## 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.

Prerequisite(s): None.

## 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.

## 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 1040 and PSCI 1050, or equivalent.

## 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 only be taken once for Honors College credit.

BLAW 4430 - Legal Organizations and Financial Transactions

3 hours

Legal aspects of agency, partnerships, corporations, commercial paper, secured transactions and bankruptcy.
Prerequisite(s): BLAW 3430.

## 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.

Prerequisite(s): None.

## BLAW 4480 - International Business Law

3 hours

Examination of selected aspects of the international legal environment affecting transnational commerce. Consideration of relevant U.S. constitutional, treaty and statutory provisions; international conventions and agreements; sovereign immunity and act of state doctrines, nationalization and expropriation.

Prerequisite(s): BLAW 3430.

## BLAW 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.

Prerequisite(s): None.
Same as RMIN 4500.

## BLAW 4600-Current Topics in Business Law

3 hours
Designed to provide information on the legal environment of specified functional areas as required by developing trends and/or changes in the law.

Prerequisite(s): None.

May be repeated for credit as topics vary.

## 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.

Prerequisite(s): None.

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.

## BLAW 4900-Special Problems

1-3 hours
Prerequisite(s): None.

## BLAW 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.

## Chamber Music

MUCM 3510-String Chamber Music

1 hour ( $0 ; 2$ )
Prerequisite(s): None.
May be repeated for credit.

MUCM 3520 - Woodwind Chamber Music

1 hour ( $0 ; 2$ )

Prerequisite(s): None.

May be repeated for credit.

MUCM 3530 - Brass Chamber Music

1 hour (0;2)

Prerequisite(s): None.

May be repeated for credit.

MUCM 3540-Percussion Chamber Music

1 hour (0;2)

Prerequisite(s): None.
May be repeated for credit.

MUCM 3550-Jazz Chamber Music

1 hour ( $0 ; 2$ )

Prerequisite(s): None.

May be repeated for credit.

MUCM 3617 - Percussion Ensemble

1 hour (0;2)
Prerequisite(s): None.

May be repeated for credit.

MUCM 3621 - Guitar Ensemble

1 hour (0;2)

Prerequisite(s): None.

May be repeated for credit.

MUCM 3630 - Harp Ensemble

1 hour (0;4)

Prerequisite(s): None.

May be repeated for credit.

## Chemistry

CHEM 1360-Context of Chemistry

3 hours (3;2)
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, popular perspectives of chemistry. Includes laboratory.

Prerequisite(s): None.
May not be counted toward a major or minor in chemistry.

Core Category: Life and Physical Sciences

CHEM 1400 - Discover Chemistry

3 hours

An introduction to topics in chemistry. Explores different applications of chemistry and areas of research.
Prerequisite(s): Recommended for students interested in the chemistry major.

Core Category: Component Area Option

CHEM 1410-General Chemistry 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): MATH 1100 or equivalent.

Corequisite(s): CHEM 1430.
*This hour is a problem-solving session.

Core Category: Life and Physical Sciences

CHEM 1412-General Chemistry 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): MATH 1100 or equivalent, admission to Honors College.
Corequisite(s): CHEM 1430.
*This hour is a discussion session.

Core Category: Life and Physical Sciences

## CHEM 1413 - Honors General Chemistry

## 3 hours (3;0;1*)

Fundamental concepts, states of matter, periodic table, structure, solutions and compounds of representative elements.

Prerequisite(s): MATH 1100 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

## 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): MATH 1650 or equivalent.

Corequisite(s): CHEM 1435.
*This hour is a problem-solving session.

Core Category: Life and Physical Sciences

CHEM 1420-General Chemistry for Science Majors
(CHEM 1312)

3 hours (3;0;1*)

Thermodynamics, reaction rates, equilibrium, electrochemistry, organic chemistry, polymers, radioactivity and nuclear reactions.

Prerequisite(s): CHEM 1410 or CHEM 1413 or consent of department.
Corequisite(s): CHEM 1440.
*This hour is a problem-solving session.

Core Category: Life and Physical Sciences

CHEM 1422-General Chemistry 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): CHEM 1412 (or CHEM 1410 or CHEM 1413 with 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

CHEM 1423 - Honors General Chemistry

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): CHEM 1413 or consent of department.
Corequisite(s): CHEM 1440.
*This hour is a problem-solving session.

Core Category: Life and Physical Sciences

CHEM 1430 - Laboratory Sequence for General Chemistry
(CHEM 1111)
1 hour $(1 ; 3)$

Laboratory techniques, weighing, errors and significant figures, identification and purification of substances, and elementary quantitative analysis.

Prerequisite(s): None.
Corequisite(s): CHEM 1410 or CHEM 1412 or CHEM 1413.

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).

CHEM 1440 - Laboratory Sequence for General Chemistry
(CHEM 1112)

1 hour (1;3)

Quantitative, gravimetric and volumetric analyses; coordination compounds.

Prerequisite(s): CHEM 1430.

Corequisite(s): CHEM 1420 or CHEM 1422 or CHEM 1423.

CHEM 2370-Organic Chemistry
(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): CHEM 1415, CHEM 1420, CHEM 1422 or CHEM 1423; CHEM 3210 (should be taken concurrently).
*This hour is a problem-solving session.

CHEM 2380-Organic Chemistry
(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; CHEM 3220 (should be taken concurrently).
*This hour is a problem-solving session.

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.

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.

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.

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.

## CHEM 3210-Organic Chemistry Laboratory

## 1 hour (1;3)

Separations and Synthesis. Organic preparations; techniques of recrystallization, distillation, solvent extraction, separation of mixtures, chromatography and spectroscopic methods.

Prerequisite(s): CHEM 1440; CHEM 2370 (should be taken concurrently).

## 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): CHEM 2380 and CHEM 3210 (should be taken concurrently).

CHEM 3230 - Physical Chemistry Laboratory Sequence

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). Should be taken concurrently with CHEM 3510 and CHEM 3520.

## CHEM 3240-Physical Chemistry Laboratory Sequence

1 hour (1;3)

Advanced Physical Measurements. Spectrophotometry, lasers, atomic and molecular spectroscopy.

Prerequisite(s): CHEM 3230. Should be taken concurrently with CHEM 3510 and CHEM 3520.

## 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): CHEM 1440.

Corequisite(s): CHEM 3452.

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): CHEM 1440.
Corequisite(s): CHEM 3451.

CHEM 3510-Physical Chemistry

3 hours (3;0;1*)

Thermodynamics, kinetic theory, solutions and phase equilibria, chemical equilibrium, photochemistry and chemical kinetics.

Prerequisite(s): CHEM 1420, CHEM 1422 or CHEM 1423; MATH 1720; PHYS 1420 or PHYS 2220.
*This hour is a problem-solving session.

## 3 hours (3;0;1*)

Quantum mechanics: atomic structure and molecular orbital theory. Spectroscopy: microwave, infrared, electronic, photoelectron, electron spin and NMR.

Prerequisite(s): CHEM 3510.
*This hour is a problem-solving session.

## 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): CHEM 1420 or CHEM 1423.

For chemistry (BA) and life science majors, and preprofessional students.

## 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.

## CHEM 3602-Laboratory for Organic Chemistry

1 hour ( $0 ; 3$ )

Prerequisite(s): CHEM 3601 (may be taken concurrently).

## CHEM 3610-Quantitative Techniques

4 hours (3;3)

Survey of modern methods used in analytical chemistry; statistical treatment of data; gravimetric and titrimetric methods; spectrophotometric, chromatographic, potentiometric and radioisotope techniques.

Prerequisite(s): CHEM 1420 or CHEM 1423.
For medical technology, merchandising and hospitality management and secondary education students.

## 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 only be taken once for Honors College credit.

## 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.

Prerequisite(s): 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.

## 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): CHEM 2380, CHEM 3451, CHEM 3452.

## CHEM 4530-Materials Chemistry

3 hours

Application of chemical principles to understanding the general behavior of materials. Course includes semiconductors, metals, catalysts and "nano-designed" materials (e.g. quantum wells).

Prerequisite(s): Concurrent enrollment in CHEM 3520 or equivalent, or consent of department.

May not be repeated at the graduate level as CHEM 5530.

## CHEM 4610 - Advanced Inorganic Chemistry

3 hours (1;3)

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 3520.

## CHEM 4620 - Advanced Inorganic Chemistry Laboratory

1 hour (1;3)
Inorganic and organometallic preparations; spectroscopic identification of diamagnetic and paramagnetic compounds; basic glassblowing; introduction to library resources.

Prerequisite(s): CHEM 4610.

## 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): CHEM 3451, CHEM 3452.

## 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.

Prerequisite(s): None.

Corequisite(s): CHEM 4631

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): CHEM 3520 (should be taken concurrently) or consent of department.

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): CHEM 2380 or CHEM 3601 with consent of department.

## 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. EDSE 3500 and EDSE 4000 are highly recommended.

Students seeking secondary certification in mathematics or computer science who have completed the other science requirements of their majors also may enroll. Does not count as an elective toward a major or minor in chemistry, except for students seeking teacher certification.

## 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.

## 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.

## 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.

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.

## 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.

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.

## 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.

## CHEM 4960 - Science Institute (Chemistry)

1-6 hours

For students accepted by the university in special institute courses.

Prerequisite(s): None.

May be repeated for credit, not to exceed 6 hours in each course.

## CHEM 4970 - Science Institute (Chemistry)

1-6 hours

For students accepted by the university in special institute courses.

Prerequisite(s): None.
May be repeated for credit, not to exceed 6 hours in each course.

## Chinese

## CHIN 1010 - Elementary Chinese

(CHIN 1311 or CHIN 1411 or CHIN 1511)

3 hours (3;2)

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): None.

CHIN 1020 - Elementary Chinese
(CHIN 1312 or CHIN 1412 or CHIN 1512)

3 hours (3;2)

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): CHIN 1010 or equivalent.

CHIN 2040 - Intermediate Chinese
(CHIN 2311)

3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): CHIN 1020 or equivalent.

CHIN 2050 - Intermediate Chinese
(CHIN 2312)

3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): CHIN 2040 or equivalent.

CHIN 3040 - Advanced Topics in Culture

3 hours

Focus on deepening students' understanding of Chinese culture and society today through a study of Chinese history, social dynamics, business practices and advanced readings from sources in contemporary and mainstream Chinese media.

Prerequisite(s): CHIN 2050 or equivalent.

May be repeated for credit as topics vary.

## CHIN 3060 - Advanced Topics in Language

3 hours

Focus on Chinese grammar and intense practice to develop fluency in reading, writing and comprehension of modern Chinese beyond the intermediate level.

Prerequisite(s): CHIN 2050 or equivalent.

May be repeated for credit as topics vary.

CHIN 3090 - Chinese for Tourism

3 hours

Major aspects of travel and tourism in China focusing on language, culture and geography.

Prerequisite(s): CHIN 2050 or equivalent.

CHIN 4080 - Business Chinese

3 hours

Linguistic and cultural aspects of business transactions and negotiations as well as the role of social customs in professional contexts.

Prerequisite(s): 3 hours of advanced Chinese or consent of department.

CHIN 4900 - Special Problems

1-3 hours

Prerequisite(s): None.

## CHIN 4910 - Special Problems

1-3 hours

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

Core Category: Component Area Option

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

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.

Prerequisite(s): None.

Core Category: Social and Behavioral Studies

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.

Prerequisite(s): None.

Core Category: Component Area Option

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.

Prerequisite(s): None.

Core Category: Creative Arts

## 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.

Prerequisite(s): None.

Core Category: Component Area Option

COMM 2900-Special Problems

1-3 hours

Prerequisite(s): None.

## 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.

## 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 prior to enrolling; minors and other majors must complete COMM 2020.

## 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 prior to enrolling; minors and other majors must complete COMM 2020.

## 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): None.

## 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 prior to enrolling; minors and other majors must complete COMM 2020 or PSCI 4821 or PSCI 4822 or PSCI 4825 or PACS 4000 or PACS 4020 or PACS 4060 or MGMT 3720.

## 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 prior to enrolling; minors and other majors must complete COMM 2140.

## 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 prior to enrolling; minors and other majors must complete COMM 2020.

## 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 prior to enrolling; minors and other majors must complete COMM 2140.

## COMM 3520-Advanced Interpersonal Communication

3 hours (1;0;2)

Advanced study of interpersonal communication research, focusing on theory and application in a variety of contexts.

Prerequisite(s): Communication studies majors must complete COMM 3010 prior to enrolling; minors and other majors must complete COMM 2020.

## 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 prior to enrolling; minors and other majors must complete COMM 2020.

## 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 prior to enrolling; minors and other majors must complete COMM 2020 or PSYC 3100.

## 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 prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

## 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): TECM 1500 or TECM 3500. Communication studies majors must complete COMM 3010 prior to enrolling.

## 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 prior to enrolling; minors and other majors must complete COMM 2140.

## 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 prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

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; however, no more than 3 hours total credit for COMM 3880 may be applied to the communication studies major or minor requirements.

## 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 prior to enrolling; minors and other majors must complete COMM 2020 or MGMT 3330 or MGMT 3820 or MGMT 3860 or PSYC 3520.

## 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 prior to enrolling; minors and other majors must complete COMM 2020.

## COMM 4021-Communication Research Methods

3 hours (2;0;1)
Experimental and quantitative techniques usable in research in communication.

Prerequisite(s): Communication studies majors must complete COMM 3010 prior to enrolling; minors and other majors must complete COMM 2020.

## 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 prior to enrolling; minors and other majors must complete COMM 2140.

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 prior to enrolling; minors and other majors must complete COMM 2060; COMM 3760 or COMM 3860 .

## 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 prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

## 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 prior to enrolling; minors and other majors must complete COMM 2020.

## 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 prior to enrolling; minors and other majors must complete COMM 2140 or WGST 2100.

## 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 prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

## 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 prior to enrolling; minors and other majors must complete COMM 2140.

## 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 prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

## 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): TECM 1500 or TECM 3500. Communication studies majors must complete COMM 3010 prior to enrolling.

## 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 prior to enrolling; minors and other majors must complete COMM 2140 and COMM 3340.

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 prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

COMM 4420-Communication and Relational Development


#### Abstract

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 prior to enrolling; minors and other majors must complete COMM 2020.


COMM 4440 - Issues in Freedom of Speech

Theories, doctrines, statutes and cases related to the First Amendment guarantee of freedom of speech.

Prerequisite(s): Communication studies majors must complete COMM 3010 prior to enrolling; minors and other majors must complete COMM 2140.

## 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 prior to enrolling; minors and other majors must complete COMM 2060 or THEA 1050.

## COMM 4510 - Communication Capstone

## 3 hours (2;0;1)

Capstone study of communication principles and practices. Students examine and practice the knowledge and skill sets that employers have identified as central to the success of college students hired in their organizations: oral presentation, listening, teamwork, critical thinking/problem solving, communication technology application and professionalization.

Prerequisite(s): Senior standing.

Course is open to students in any major.

## 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 prior to enrolling; minors and other majors must complete COMM 2140 or WGST 2100.

Same as WGST 4300.

## 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 prior to enrolling; minors and other majors must complete COMM 2140.

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 majors must complete COMM 3010 prior to enrolling; minors and other majors must complete COMM 2140.

## 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.

## 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 prior to enrolling; minors and other majors must complete COMM 2020.

May be repeated for credit as topics vary.

## 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 prior to enrolling; minors and other majors must complete COMM 2140.

May be repeated for credit as topics vary.

## 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 prior to enrolling; minors and other majors must complete COMM 2060.

May be repeated for credit as topics vary.

COMM 4900-Special Problems

1-3 hours

Prerequisite(s): Problem must be approved by department chair.

COMM 4910 - Special Problems

1-3 hours

Prerequisite(s): Problem must be approved by department chair.

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 4021, or COMM 3340 and COMM 4040, or COMM 4060.

## 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.

## Computer Science and Engineering

## CSCE 1010 - Discovering Computer Science

3 hours (2;1)
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.

Prerequisite(s): None.

May not be counted toward computer science and engineering major or minor.
Core Category: Component Area Option

CSCE 1020 - Program Development
(COSC 1315 or COSC 1415)

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.

CSCE 1030 - Computer Science I
(COSC 1336 or COSC 1436)

4 hours (3;1)

Introduction to computer science and engineering, problem-solving techniques, algorithmic processes, software design and development.
Prerequisite(s): MATH 1650 with a grade of C or better.

CSCE 1040 - Computer Science II
(COSC 1337 or COSC 1437)

3 hours (2;3)
Continuation of CSCE 1030. Software design, structured programming, object-oriented design and programming.

Prerequisite(s): CSCE 1030.

Corequisite(s): MATH 1710.

CSCE 2100-Computing Foundations I

3 hours (3;0;1)
Introduces students to both data structures and formalisms used in computer science, such as asymptotic behavior of algorithms. Data structures
and the formalisms used to both describe and evaluate those data structures simultaneously. By the end of the two-semester sequence, of which this course is the first part, each student has 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.

## CSCE 2110 - Computing Foundations II

3 hours (3;0;1)

Continuation of Computing Foundations I. Further introduces students to both data structures and formalisms used in computer science, such as asymptotic behavior of algorithms. Data structures and formalisms used to both describe and evaluate those data structures simultaneously. By the end of the two-semester sequence, each student has a solid foundation in conceptual and formal models, efficiency and levels of abstraction as used in the field of computer science.

Prerequisite(s): CSCE 2100.

## CSCE 2410 - Programming Laboratory

1-4 hours

Practice with computer languages and processing techniques.

Prerequisite(s): CSCE 1040 or BCIS 3620 or BCIS 3690.

## CSCE 2610 - Assembly Language and Computer Organization

(COSC 2325 or COSC 2425)

3 hours

Principles of computer systems organization, instruction sets, computer arithmetic, data and control paths, memory hierarchies, and assembly language.

Prerequisite(s): CSCE 2100, ENGR 2720.

## CSCE 2900 - Special Problems in Computer Science and Engineering

1-4 hours

Individualized instruction in theoretical or experimental problems.

Prerequisite(s): None.
For elective credit only.

## 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.

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): ENGR 2405; ENGR 2415; and MATH 2730 or MATH 3410.

## CSCE 3020 - 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): CSCE 3010.

## CSCE 3030 - 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 2100.

## 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.

## CSCE 3110 - Data Structures and Algorithms

3 hours

Computer storage structures; storage allocation and management; data sorting and searching techniques; data structures in programming languages.

Prerequisite(s): CSCE 2100 and CSCE 2110.

## 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.

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.

## 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.

May be repeated for credit as topics vary.

## 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.

## 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.

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.

## CSCE 3530 - Introduction to Computer Networks

3 hours

Introduction to data communications; asynchronous, synchronous, networks and current technology.

## CSCE 3535 - 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.

## 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.

## 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

## CSCE 3612 - Embedded Systems Design

3 hours (3;0;1)
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 microcontrollers in a single design.

Prerequisite(s): CSCE 2610; ENGR 2720; ENGR 2730.

## CSCE 3615 - Enterprise Systems Architecture, Analysis 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.

## 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.

## 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 or consent of instructor.

Same as BIOL 3850.

## 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.

May only be taken once for Honors College credit.

## 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): Junior standing.

## CSCE 4011 - Engineering Ethics

3 hours

The effect of technology in modern society with emphasis on the role of engineering and technical professionals.

Prerequisite(s): Junior standing.

## CSCE 4050 - Applications of Cryptography

3 hours

Aims to introduce students to concepts of cryptography and its applications. Cryptography is the fundamental building block of any computer security solution. The knowledge gained from this course will enable students to apply these cryptographic algorithms in a better way to design security solutions.

Prerequisite(s): CSCE 2100 and CSCE 2110.

## CSCE 4110 - Algorithms

3 hours

Algorithm design methodologies, sorting, graph algorithms, dynamic programming, backtracking, string searching and pattern matching.

## 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.

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 2100.

## CSCE 4215 - 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): MATH 2700, CSCE 2100, PHYS 1710/PHYS 1730.

## 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 4215.

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.

## 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.

## 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 4220.

May be repeated for credit as topics vary.

## 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 3110.

## CSCE 4310 - Introduction to Artificial Intelligence

3 hours

Introduction to concepts and ideas in artificial intelligence. Topics include search techniques, knowledge representation, control strategies and advanced problem-solving architecture.

Prerequisite(s): CSCE 3210.

CSCE 4350 - Introduction to Database Systems Design

3 hours

Logical and physical database system organization; logical models; design issues; secondary storage considerations.

Prerequisite(s): CSCE 2100 and CSCE 2110.

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.

## 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.

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.

CSCE 4444 - 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 2100 and CSCE 2110.

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.

CSCE 4520 - Wireless Networks and Protocols

3 hours

Architecture and elements of a wireless network. Use and process of mobility management. Signaling schemes used in wireless networks, network signaling, protocols and standards (GSM, IS-95, WAP, MobileIP, GPRS, UMTS and CDMA2000). Analysis of the operation and performance of wireless protocols.

Prerequisite(s): CSCE 3600.

## 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.

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.

## 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 3600.

## 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 2100 and CSCE 2110.

## 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.

## CSCE 4610 - Computer Architecture

3 hours

Study of performance issues related to the design of high performance processors, including Instruction Level Parallelism, out-of-order instruction scheduling, branch prediction, speculative execution.

Prerequisite(s): CSCE 3612.

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 4440.

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.

## 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.

## 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

## 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.

## CSCE 4810 - Biocomputing

3 hours (3;0;1)

Introduction to computation problems inspired by the life sciences and overview of available tools. Methods to compute sequence alignments, regulatory motifs, phylogenetic trees and restriction maps.

Prerequisite(s): CSCE 3850 or junior or senior standing.

Same as BIOL 4810 and MATH 4810; taught with CSCE 5810.

## CSCE 4820 - Computational Epidemiology

3 hours (3;0;1)

Application of computational methods to problems in the fields of public health. Design and implementation of disease outbreak models.

Prerequisite(s): CSCE 3850 or junior/senior standing.

Same as BIOL 4820; taught with CSCE 5820.

## 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.

May be repeated for credit.

## CSCE 4901 - Software Development Capstone

## 3 hours

Students demonstrate their mastery of the breadth of computer science learned in their studies. Focus is on the application of computer science techniques to the design of applications involving multiple software components. Students apply the theory acquired from numerous computer science courses to solve real-world design and developmental problems. The design considers realistic constraints including economic, environmental, critical thinking, technical writing and communications skills, and group management skills in completing their design and development project.

Prerequisite(s): CSCE 4110, CSCE 4444 and TECM 2700.

## 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.

## 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, safety.

Prerequisite(s): CSCE 3612 and EENG 3510 and appropriate area electives.

## 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, safety.

Prerequisite(s): CSCE 4910. CSCE 4915 must be completed in the long term/semester immediately following the completion of CSCE 4910.

## 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, and consent of instructor

May be repeated for credit.

## CSCE 4925 - Information Technology Capstone II

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. CSCE 4925 must be completed in the long term/semester immediately following the completion of CSCE 4905.

## 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.

May be repeated for credit.

## 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.

Open to advanced undergraduate students capable of developing problems independently. May be repeated for credit.

## 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.

## 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.

## 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.

## Construction Engineering Technology

CNET 1160 - Construction Methods and Materials

3 hours (2;3)
Introduction to the materials, systems, methods and procedures of building construction.
Prerequisite(s): None.

CNET 2180 - Construction Methods and Surveying

4 hours (3;3)

Contemporary methods and materials used in the construction industry; nature, use and characteristics of materials; construction methodology, application and sequencing in the building process. Surveying principles, instruments, measurements and calculations fundamentals of surveying for building construction; survey drawings and mapping.

Prerequisite(s): CNET 1160.

CNET 2300 - Architectural Drawing

2 hours (1;3)

Emphasizes architectural details; home planning.
Prerequisite(s): None.

CNET 2900-Special Problems

1-4 hours
Individualized instruction in theoretical or experimental problems.

Prerequisite(s): Consent of instructor.

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.

CNET 3150 - Construction Contract Documents

2 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 (may be taken concurrently).

## 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

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 3160.

## 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): None.

## CNET 3430 - Structural Analysis

3hours

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.

## 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.

## 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.

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.

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.

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 only be taken once for Honors College credit.

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.

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.

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.

## 2 hours

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 2180.

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; senior standing.

## CNET 4790 - Senior Design II

3 hours (1;4)

Perform design and management analysis of an engineering or construction product or process. Oral and written documentation required. Projects to be supplied by local construction industry whenever possible.

Prerequisite(s): CNET 4780.

## 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.

## 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.

## 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.

## 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.

## Converged Broadcast Media

## CBCM 2400 - Digital Media Writing

3 hours (3;1)

Emphasis on formats, styles, and how to research content/material. Introduction to converged broadcast information writing with emphasis in talk magazine, sports, long-form documentary and news formats.

Prerequisite(s): CBCM pre-major status, MRTS 1310 and completion of 12 hours of UNT course work or accepted in transfer with a GPA of 2.75 or better.

## CBCM 3500 - Video Photography, Editing and Reporting for Digital Media

3 hours (3;1)

Introduction to shooting, writing, editing and producing (both audio and video) skills targeting information programming including documentary, sports, magazine formats and news across multiple platforms and distribution modes.

Prerequisite(s): CBCM/MRTS major status and MRTS 2210.

## CBCM 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): CBCM or MRTS major status, MRTS 2210 and consent of department.

CBCM 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.

## Counseling

## COUN 2610 - Principles of Counseling I

3 hours

Introduction to the broad range of counseling services and their application to schools and community agencies.

Prerequisite(s): None.

May be taken concurrently with COUN 3620, COUN 3630, COUN 3640, COUN 4610 and COUN 4620.

## 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.

Prerequisite(s): None.

Core Category: Component Area Option

COUN 3600 - Therapeutic Play

3 hours

Didactic and experiential training in how to be a therapeutic agent in children's lives by using structured therapeutic play sessions. Participants are taught basic child-centered play therapy principles and skills, including reflective listening, recognizing and responding to children's feelings, therapeutic limit setting, building children's self-esteem, and structuring therapeutic play sessions with children using a special kit of selected toys. Observations of play therapy sessions and skill building therapeutic play sessions are required.

Prerequisite(s): None.

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 (may be taken concurrently).

COUN 3630 - Survey of Career Development and Career Guidance

3 hours

Overview of current problems and developments in career choices.

Prerequisite(s): COUN 2610 (may be taken concurrently).

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).

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 (may be taken concurrently).

COUN 4900 - Special Problems

1-3 hours

Individual instruction to cover course content in special circumstances.

Prerequisite(s): Consent of chair or dean.

## COUN 4910 - Special Problems

1-3 hours

Individual instruction to cover course content in special circumstances.

Prerequisite(s): Consent of chair or dean.

## 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).

Prerequisite(s): None.

Same as SOCI 2100.

Core Category: Social and Behavioral Sciences

CJUS 2600 - Diversity Issues in Criminal Justice

3 hours

Critically examines race, gender and other diversity issues within the U.S. criminal justice system. Topics of emphasis include the importance of diversity issues in the development, organization and operation of the criminal justice system.

Prerequisite(s): None.

## CJUS 2900 - Special Problems

1-3 hours

Prerequisite(s): None.

## CJUS 2910-Special Problems

$1-3$ hours

Prerequisite(s): None.

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.

CJUS 3110-Survey of Forensic Investigations

3 hours

Overview of the various disciplines which encompass forensic science with a focus on the scientific principles that underlie these disciplines. Topics include forensic anthropology, forensic odontology, forensic pathology, forensic toxicology, forensic engineering, forensic entomology, forensic science application to the social sciences, and legal and ethical issues in forensic science.

Prerequisite(s): None.

## CJUS 3201 - Criminal Law

3 hours

Examines general and statutory bases and theories of criminal law and jurisprudence.

Prerequisite(s): CJUS 2100 or equivalent.

## CJUS 3210-Judicial and Legal Systems

3 hours

Examines the courts, the legal and judicial process and judicial behavior.
Prerequisite(s): CJUS 2100 or equivalent.

## CJUS 3300 - Police Systems

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.

Prerequisite(s): CJUS 2100 or equivalent.

## CJUS 3310-Organized and Consensual Crime

3 hours

The study of the history, structure and governmental responses to organized crime; special emphasis is placed on consensual crimes such as drug abuse and trafficking, prostitution, pornography and gambling.

Prerequisite(s): CJUS 2100 or equivalent.

## 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.

Prerequisite(s): CJUS 2100 or equivalent.

## 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.

Prerequisite(s): CJUS 2100 or equivalent, or consent of instructor.

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.

Prerequisite(s): None.

## CJUS 3400-Correctional Systems

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.

Prerequisite(s): CJUS 2100 or equivalent.
Same as SOCI 3460.

## CJUS 3410-Correctional Case Management

## 3 hours

Study of the basic purposes and techniques of correctional case management with consideration given to the supervision and control of offender activities and the development of interpersonal skills required to enhance communication with and to effect lasting behavioral change in offenders.

Prerequisite(s): CJUS 2100 or equivalent.

## 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.

Prerequisite(s): SOCI 1510, PSYC 1630 and CJUS 2100 or equivalents.

## 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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

Same as SOCI 3620

## 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.

Prerequisite(s): None.

Same as SOCI 3630.

CJUS 3700 - Ethical Issues in Criminal Justice

3 hours

Study of ethical issues facing the criminal justice system. Problems confronting police, the courts and the juvenile and correctional systems are addressed.

Prerequisite(s): CJUS 2100 or equivalent.

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 only be taken once for Honors College credit.

## 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.

Prerequisite(s): CJUS 2100 and CJUS 3201 or equivalents.

## CJUS 4250 - Law and Social Problems

3 hours

Examines the role of law in attempts to address and solve social problems.
Prerequisite(s): CJUS 2100 and CJUS 3201 or equivalents.

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.

Prerequisite(s): None.

## 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.

Prerequisite(s): CJUS 2100 or equivalent.

## 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).

Prerequisite(s): CJUS 2100, CJUS 3201 and CJUS 3300 or equivalents.

## CJUS 4370-Advanced Criminalistics I

3 hours (3;0;2)

Advanced examination of specified sub-disciplines of criminalistics, including analysis of firearms/tool marks, footwear/tire tread evidence, and bloodstain patterns. Designed to provide students with an understanding of the scientific method of analysis, the theory of individualization, and the application of critical thinking as applied to these sub-disciplines.

Prerequisite(s): CJUS 2100 and CJUS 3330 or equivalents, or consent of instructor.

## CJUS 4380 - Advanced Criminalistics II

3 hours (3;0;2)

Advanced examination of specified sub-disciplines of criminalistics, including analysis of latent prints, trace evidence and controlled substances. Designed to provide students with an understanding of the scientific method of analysis, the theory of individualization, and the application of critical thinking as applied to theses sub-disciplines.

Prerequisite(s): CJUS 2100 and CJUS 3300 or equivalents, or consent of instructor

## CJUS 4390 - Crime Scene Investigation Theory

## 3 hours

Designed to provide a thorough understanding of the scientific theories involved in the recognition, documentation, preservation and collection of physical evidence at crime scenes. Crime scene documentation methods included are digital imaging (still and video), note taking, sketching and crime scene mapping. Safety considerations and biohazard concerns are emphasized. Proper evidence collection techniques and chain of custody issues are presented. The theory of crime scene reconstruction according to the scientific method is developed. Field exercises are used to further develop lecture topics.

Prerequisite(s): CJUS 3330 or equivalent or consent of instructor

## 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.

Prerequisite(s): CJUS 2100 or equivalent.

Same as SOCI 4460.

## CJUS 4500 - Administration of Criminal Justice Agencies

3 hours

Study of principles and practices of administration and their application to criminal justice agencies. Special focus on the relationship of theoretical administrative concepts and practical criminal justice problems.

Prerequisite(s): CJUS 2100 and 9 hours of upper-division criminal justice courses or equivalents.

## CJUS 4650 - Victimology

3 hours

Exploration of the scope of victim issues in American society. Review of the programs and services provided victims of crime. The expanding roles of the courts, police, battered women shelters, victim/witness assistance programs, crisis intervention units and legislation are highlighted.

Prerequisite(s): CJUS 2100 or equivalent.

## CJUS 4660 - Offender Behavior

3 hours

Examines the variables that correlate with or lead to criminal behavior, such as the family, schools, personality, economic forces and cultural values. Psycho-social explanations illuminate the factors that cause crime and criminality and suggests solutions.

Prerequisite(s): CJUS 2100 and CJUS 3600 or equivalents.

## CJUS 4700 - 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): Senior standing and a minimum of 18 hours in criminal justice, with 12 hours from the criminal justice core.

## CJUS 4850 - Internship in Criminal Justice

1-6 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.

CJUS 4860 - Studies in Criminal Justice

1-3 hours
Individual investigation of selected issues regarding criminal justice.

Prerequisite(s): CJUS 2100 or equivalent and 12 additional hours of criminal justice courses and consent of department.

May be repeated for credit as topics vary.

## CJUS 4870 - Topics in Criminal Justice

3 hours

Seminar class devoted to an investigation, analysis and discussion of significant problems in contemporary criminal justice.

Prerequisite(s): CJUS 2100 or equivalent and 6 additional hours of criminal justice courses.

May be repeated for credit as topics vary.

## CJUS 4900-Special Problems

$1-3$ hours

Prerequisite(s): Consent of department.

## CJUS 4901 - Senior Seminar: Criminal Justice and Public Policy

3 hours

Examination of the problems and issues involved in forming and implementing criminal justice policy 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): Senior standing and at least 33 hours of criminal justice, with 18 hours from the criminal justice core.

## 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

## Dance

## DANC 1050 - Dance Performance

1 hour (0;3)
Introductory laboratory course giving credit to students for their experiences in rehearsal and performance of dance as an art form. The course is fourfold in content, including auditions, studio rehearsals, technical and dress rehearsal, and performances. All students planning to audition for a dance performance in the Department of Dance and Theatre must be enrolled in a performance lab. All students enrolled in the course are provided the opportunity to be in a dance production in the capacities of audition, rehearsal and/or performance.

Prerequisite(s): None.

Corequisite(s): A DANC technique course.
May be repeated for credit.

## DANC 1100 - Stress Reduction Through Movement

## 3 hours (3;1)

Study of the basic theories and practices of wellness for increased quantity and quality of life through classroom and movement laboratory experiences. Scientific and philosophic examination of the body-mind connection. Course focuses on gaining an understanding of stress, stressrelated illnesses and injuries, and techniques of stress release through movement for rehabilitation and health maintenance. Course addresses learning/growth processes, creativity, body image, preventive care, structural disciplines, movement analysis, body/movement therapies, massage and relaxation techniques.

Prerequisite(s): None.
Core Category: Component Area Option

## DANC 1200 - Appreciation of Dance as a Contemporary Art Form

3 hours

Aesthetics of dance as a performing art. Emphasis placed on the development of an appreciation for dance as a form of communication and as a reflection of contemporary society. Lectures, films and field trips.

Prerequisite(s): None.

Core Category: Creative Arts

DANC 1250 - Choreography I

3 hours

Introduction to the principles and application of dance composition through improvisational exercises; addresses the elements of movement: space, time, and energy. Explores the concepts of abstraction, organic movement, developing a motive, working from a score and musicality.

Prerequisite(s): Concurrent enrollment in Modern Technique.
Required of all dance majors.

## 3 hours (1;3)

Introduction to theory and technique of modern dance. Fundamental exercises and analysis of time, space and dynamics as they apply to elements of dance with emphasis on structural alignment and integration.

Prerequisite(s): Students register for DANC 1400 in the fall and spring semesters of one academic year. At the end of the spring semester, students are assigned to the appropriate technique level by faculty recommendation. Students must complete each semester with a minimum grade of B to advance to the next level.

May be repeated for credit.

## DANC 1410 - Ballet Technique, Level I

3 hours (1;3)

Basic techniques of classical ballet. Emphasis placed on fundamentals of alignment, integration, terminology and simple ballet movement vocabulary

Prerequisite(s): Placement through proficiency exam and by faculty. Students register for DANC 1410 in the fall and spring semesters of one academic year. At the end of the spring semester, students are assigned to the appropriate technique level by faculty recommendation. Students must complete each semester with a minimum grade of B to advance to the next level.

May be repeated for credit.

## DANC 1500-Jazz Dance Technique, Level I

1 hour (1;3)

Introduction to jazz dance through a study of its vocabulary, style and technique.

Prerequisite(s): None.

May be repeated for credit.

## DANC 1710 - Tap Dance Technique, Level I

1 hour (1;3)

Basic technique of tap dance designed for the beginning performing student. Fundamentals of body placement, terminology, simple tap combinations, elements of performance quality and tap dance composition.

Prerequisite(s): None.

May be repeated for credit.

## DANC 2060 - Music for Dancers

3 hours (3;1)

An introduction to music and its relationship to dance. Increases musical awareness, listening skills, rhythmic skills, communication skills in the language of music, musicality, and repertoire of music selections for choreography.

Prerequisite(s): DANC 1250 or consent of department.

## DANC 2095-Stage Production I

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, electrics/sound and ushering to gain an understanding of how each area supports an overall production.

Prerequisite(s): None.

Same as THEA 2095.

May be repeated for credit.

## DANC 2250-Choreography II

## 3 hours (3;3)

Theory and practice of movement exploration for use in establishing expressive movement patterns to be structured into short dance compositions. Three hours weekly of lecture and movement plus a minimum of 60 clock hours in a movement laboratory.

Prerequisite(s): DANC 1250.

Corequisite(s): DANC 2400, DANC 3400 or DANC 4400.

## DANC 2400 - Modern Dance Technique, Level II

3 hours (1;3)

Emphasis placed on performance of relatively more complex combinations of movement patterns. Technical development of the body for greater range of movement and control. Analysis of time, space and dynamics as they apply to dance.

Prerequisite(s): Placement through proficiency exam and by faculty. Students register for DANC 2400 in the fall and spring semesters of one academic year. At the end of the spring semester, students are assigned to the appropriate technique level by faculty recommendation. Students must complete each semester with a minimum grade of $B$ to advance to the next level.

May be repeated for credit.

## DANC 2410 - Ballet Technique, Level II

3 hours (1;3)

Continuation of DANC 1410. More emphasis is placed on simple adagio and allegro combinations as well as stylistically building the body as a performing instrument within the vocabulary of classical ballet.

Prerequisite(s): Placement through proficiency exam and by faculty. Students register for DANC 2410 in the fall and spring semesters of one academic year. At the end of the spring semester, students are assigned to the appropriate technique level by faculty recommendation. Students must complete each semester with a minimum grade of B to advance to the next level.

May be repeated for credit.

## DANC 2500-Jazz Dance Technique, Level II

## 1 hour (1;3)

Continuation of DANC 1500. Study includes more complex vocabulary, longer movement combinations and more attention to technique and development of jazz dance style.

Prerequisite(s): Placement through proficiency exam.

May be repeated for credit.

## DANC 2710 - Tap Dance Technique, Level II

## 1 hour (1;3)

Continuation of DANC 1710 with an emphasis placed on performance of relatively more complex combinations of movement patterns and increased vocabulary. Attention to performing technically to include more intricate rhythm skills, projection, focus, spatial clarity and overall musicality.

Prerequisite(s): Placement through proficiency exam.

May be repeated for credit.

DANC 2800 - Survey of Dance

3 hours

Primitive to contemporary dance both as a reflection of cultures and societies and as a performing and participatory art form.

Prerequisite(s): None.

Core Category: Creative Arts

DANC 2900-Special Problems

3 hours

Prerequisite(s): Consent of the department.

## DANC 2910-Special Problems

1-3 hours

Prerequisite(s): Consent of the department.

## 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.

## 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.

## 3 hours

Study of principles and techniques of dance performance through practical application of performing skills. In-depth work in body awareness, development of mental discipline and understanding the psychological aspects involved in non-verbal communication. Experience in working with a choreographer and performing in both laboratory and concert settings. Three-hour weekly lecture and movement plus a minimum of 60 clock hours in a movement laboratory.

Prerequisite(s): DANC 2250, DANC 3050.

Corequisite(s): DANC 2400, DANC 3400 or DANC 4400.

## DANC 3250-Choreography III

3 hours

Development of principles and theories involved in composition. Emphasis placed on movement principles. Group and structural forms. Three hours weekly of lecture and movement plus a minimum of 60 clock hours in a movement laboratory.

Prerequisite(s): DANC 1250, DANC 2250.
Corequisite(s): DANC 2400, DANC 3400 or DANC 4400.

## DANC 3400 - Modern Dance Technique, Level III

## 3 hours (1;3)

Continued development of movement vocabulary with emphasis on processing increasingly complex material. Self-analysis of strengths and weaknesses.

Prerequisite(s): Placement through proficiency exam and by faculty. Students register for DANC 3400 in the fall and spring semesters of one academic year. At the end of the spring semester, students are assigned to the appropriate technique level by faculty recommendation. Students must complete each semester with a minimum grade of B to advance to the next level.

May be repeated for credit.

## DANC 3410 - Ballet Technique, Level III

3 hours (1;3)

Greater emphasis on expressive performance of classical ballet. Development of greater physical strength, stamina and flexibility. Introduction to pointe work, partnering and more complex movement vocabulary.

Prerequisite(s): Placement through proficiency exam and by faculty. Students register for DANC 3410 in the fall and spring semesters of one academic year. At the end of the spring semester, students are assigned to the appropriate technique level by faculty recommendation. Students must complete each semester with a minimum grade of B to advance to the next level.

May be repeated for credit.

DANC 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 are compared and contrasted with various African and social uses, and artistic and educational values.

Prerequisite(s): None.
Same as MUET 3617.

May be repeated for credit.

## DANC 3800 - History of Concert Dance in the U.S.: 1900-Present

3 hours

Historical study of modern dance and ballet on stage from 1900 to the present with an emphasis on dance in the United States. Examination of the evolution of these two concert dance forms through the lives of choreographers; the historical, political, social and cultural context of significant pieces of choreography; and the aesthetic movements and themes represented by specific dances through time. Skills needed to "read" context, meaning and metaphor in dance are enhanced to a higher level of depth and insight. Learning in this course occurs through multiple forms of intelligence and varied modes of communication.

Prerequisite(s): DANC 1250, DANC 2800.

## 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 only be taken once for Honors College credit.

## DANC 4046 - Dance and Technology

3 hours (3;3)

Introductory survey of digital media, designed for the basic use of multimedia as it relates to dance creation, education, production and research. Laboratory experience is emphasized.

Prerequisite(s): DANC 2250.

## DANC 4050 - Dance Performance and Production Lab

1 hour (0;3)
Advanced laboratory course giving credit to students who have completed at least two terms/semesters of DANC 1050 or its equivalent. Includes experiences in rehearsal and performance of dance as an art form. The course is fourfold in content, including auditions, studio rehearsals, technical and dress rehearsals, and performances. Students planning to audition for a dance performance in the Department of Dance and Theatre must be enrolled in a performance lab. Students are provided opportunity to seek leadership roles in the audition process, serve as rehearsal assistant to choreographers, and assist in organization of auditions and rehearsals.

Prerequisite(s): DANC 1050 or equivalent.

Corequisite(s): a DANC technique course.

May be repeated for credit.

## 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 department.

## DANC 4095 - Stage Production II

1 hour (1;3)
Advanced study of the principles and practices governing the presentation of stage productions. Students manage or serve as crew heads for front-of-house, backstage, and costume and makeup operations for theatrical productions. Opportunity to seek independent solutions to management or technical problems when qualified. One-hour weekly lecture plus at least 45 clock-hours per term/semester in a production laboratory.

Prerequisite(s): 3 hours of DANC 2095, or the equivalent, or permission of the department.

Same as THEA 4095.

May be repeated for credit.

## DANC 4400 - Modern Dance Technique, Level IV

## 3 hours (1;3)

Continuation of DANC 3400. For the highly accomplished modern dancer giving emphasis to preprofessional training. Introducing more complex work in contemporary styles.

Prerequisite(s): Placement through proficiency exam and by faculty. Students register for DANC 4400 in the fall and spring semesters of one academic year. At the end of the spring semester, students are assigned to the appropriate technique level by faculty recommendation. Students must complete each semester with a minimum grade of B to advance to the next level.

May be repeated for credit.

## DANC 4410 - Ballet Technique, Level IV

3 hours (1;3)
Continuation of DANC 3410. For the serious ballet dancer with emphasis on preprofessional preparation. Introducing more complex elements of petit allegro, grande allegro, classical and contemporary ballet repertory.

Prerequisite(s): Placement through proficiency exam and by faculty. Students register for DANC 4410 in the fall and spring semesters of one academic year. At the end of the spring semester, students are assigned to the appropriate technique level by faculty recommendation. Students must complete each semester with a minimum grade of B to advance to the next level.

May be repeated for credit.

## DANC 4630 - Laban Studies

3 hours

Based on the theories of Laban Movement Analysis, an advanced study of expressive relationships between the inner intent to move, a responding action, and the ways bodies shape to create the action in and through space. Provides a comprehensive vocabulary within an analytic framework for the description of movement and its application to choreography and performance. Facilitates acuity in observing and assessing movement patterns and choices.

Prerequisite(s): DANC 2250.

## DANC 4650-Senior Project

Individualized dance project with selected faculty member. Includes specialized study in, but not limited to, areas such as choreography, creative research, therapy, dance science, examination of pedagogical or administrative issues. Serves as the capstone course for the BA and BFA degrees in dance.

Prerequisite(s): Depending upon the final area of specialization, the selected 9 hours of prerequisites must be approved by the student's academic advisor in the Department of Dance and Theatre.

## DANC 4700-Composer/Choreographer Collaboration

3 hours (3;3)
Interdisciplinary, experiential exploration of collaboration between musician/composers and dancer/choreographers, which provides a framework for the creation of new music/dance collaborative projects. Exploration of music/dance collaboration historically.

Prerequisite(s): DANC 3250 or consent of department. For music-consent of department.

DANC 4800 - Studies in Dance

1-3 hours

Prerequisite(s): None.

DANC 4900-Special Problems

1-3 hours

Prerequisite(s): None.
Problems must be approved by the department chair.

## DANC 4910-Special Problems

1-3 hours

Prerequisite(s): None.

Problems must be approved by the department chair.

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.

## Decision Sciences

## DSCI 2710 - Data Analysis with Spreadsheets

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 have completed two years of high school algebra and one year of geometry and be eligible for college level math course.
Core Category: Mathematics

DSCI 2870 - Basic Operations Research

3 hours

Quantitative methods of analyzing business problems; survey of cost, volume and profit analysis; inventory and production models, and linear programming; game theory; network analysis.

Prerequisite(s): Completion of mathematics requirement.

## 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.

## 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.

## 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.

## 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 only be taken once for Honors College credit.

## 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.

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.

## 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.

Prerequisite(s): BCIS 4660 or ACCT 4100 or LSCM 3960; 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.

DSCI 4800 - Cooperative Education

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.

May be repeated for credit. Pass/no pass only. A maximum of 3 hours may be applied to supporting field elective courses with departmental approval.

## DSCI 4900 - Special Problems

1-3 hours
Prerequisite(s): None.

## 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.

## Design

## ADES 1500 - Introduction to Communication Design

3 hours

Overview of the communication design profession. Terminology, design planning, creative methodological processes, human communication, metaphorical thinking, Gestalt, form analysis, semiotics, ethics and creative teamwork.

Prerequisite(s): None.

Not offered every term/semester.

## ADES 1510 - Typography I

## $(0 ; 6)$

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. Participation in the mid-point review is required to pass the course.

Prerequisite(s): ADES 1540.

Corequisite(s): ADES 2515

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.

## ADES 1540 - Foundations for Communication Design

3 hours (0;6)

Computer hardware and software and their application in communication design.

Prerequisite(s): ART 1440 and ART 1500. Acceptance into the program through the Communication Design Entry Portfolio Review.

All students are required to have their own laptop with the specified software for this course.

## 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.

Prerequisite(s): Course restricted to PFAS majors only.

Not offered every term/semester.

## ADES 1560 - Fashion Design: Introduction to Industrial Sewing Techniques

$(0 ; 6)$

Introduction to machinery and construction techniques used in the mass production of apparel. Student projects focus on unlined garment construction.

Prerequisite(s): ART 1200 or ART 1301, ART 1440, ART 1450, ART 1500, ART 1510; Minimum 2.5 GPA on required art courses; minimum 2.25 UNT grade point average.

Corequisite(s): ADES 2550. If student has not successfully completed ADES 1550, student must be concurrently enrolled in ADES 1550 .

Not offered every term/semester.

## ADES 1625 - Introduction to Interior Design

3 hours

Basic understanding of concepts, principles and elements as they relate to the interior design profession.

Prerequisite(s): None.

Not offered every term/semester.

## ADES 2500 - Design Thinking

3 hours (0;6)
Introduces students to creative methodologies, research processes, ethnographic study, teamwork, ideational drawing for communication, iterative exploration, semiotics and branding. Students encapsulate the processes they learn in this class into a capstone visual artifact.

Prerequisite(s): ART 1510, ADES 1510, ADES 1500 (may be taken concurrently).

Corequisite(s): ADES 2510.

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.

## 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. Must have successfully passed Mid-Point Portfolio Review.
Corequisite(s): ADES 2520.

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.

## 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.

Corequisite(s): ADES 1510.
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.

## 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. Must have successfully passed Mid-Point Portfolio Review.

Corequisite(s): ADES 2510.

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.

## 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. Participation in the mid-point review is required to pass this course.

Prerequisite(s): ADES 1510 and ADES 2515.

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.

## ADES 2550 - Fashion: Patternmaking I

$(0 ; 6)$

Introduction to basic flat patternmaking techniques. Development of bodice, skirt and sleeve variations. Construction of muslin samples. Participation in the fashion design entry portfolio is required to pass this course.

Prerequisite(s): ART 1200 or ART 1301, ART 1440, ART 1450, ART 1500, ART 1510; ADES 1550; minimum 2.5 GPA on required art courses; minimum 2.25 UNT grade point average.

Not offered every term/semester.

## ADES 2555 - Fashion: Patternmaking II

$(0 ; 6)$

Intermediate flat patternmaking. Development of pant, intermediate bodice, skirt, sleeve and collar variations. Construction of muslin samples.

Prerequisite(s): ADES 2550. Students must be accepted into the program through the Fashion Design Entry Portfolio Review.

Not offered every term/semester.

## ADES 2560 - Fashion Design: Advanced Industrial Sewing Techniques

Advanced construction methods; professional techniques of garment construction utilizing modern industrial equipment; tailoring and finishing.

Prerequisite(s): ADES 2550. Student must be accepted into the program through the fashion design entry portfolio review.
Corequisite(s): ADES 2555, ADES 2570.

Not offered every term/semester.

## ADES 2570 - Fashion Drawing

3 hours ( $0 ; 6$ )

Drawing the fashion figure from the live model. Various media. Concentration on developing a personal style and proper presentation of designs for industry.

Prerequisite(s): ADES 2550. Students must be accepted into the program through the fashion design entry portfolio review.
Not offered every term/semester.

## ADES 2630 - Drawing for Interior Design

3 hours (0;6)

Introduction to drafting equipment, mechanical drawing, architectural graphics and lettering. Emphasis on measured 3-dimensional space for interior presentation using one- and two-point perspective theory.

Prerequisite(s): ADES 1625, ART 1200 or ART 1301, ART 1440, ART 1450, ART 1500, ART 1510; student must have completed or be concurrently enrolled in ART 2350.

Not offered every term/semester.

## ADES 2640 - Interior Design: Space Planning I

3 hours (0;6)

Introduction to space planning; emphasis on interior space, lighting, fabrics and color as applied to interior design.
Prerequisite(s): ADES 2630; student must have completed or be concurrently enrolled in ART 2360; must have been selected in the interior design entry portfolio review.

Not offered every term/semester.

## 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.

Corequisite(s): ADES 3510.

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.

## 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.

Corequisite(s): ADES 3500.
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.

## 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): Students must have successfully completed ADES 3500 and ADES 3510.

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.

## 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.

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.

## 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.

Corequisite(s): ADES 3520 or ADES 3530.

## ADES 3545-Communication Design Studio

3 hours (0;6)

Developing additional competence in specialized areas.

Prerequisite(s): ADES 3500, ADES 3510.
May be repeated for credit as topics vary.
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.

## ADES 3550 - Fashion: Draping

3 hours (2;4)

Advanced patternmaking projects using draped and flat processes. Design development.

Prerequisite(s): ADES 2570, ADES 2555, MDSE 2650.
Not offered every term/semester.

## ADES 3555-Fashion: Industry Techniques

3 hours (2;4)

Category design and group development. Industry team and CAD projects.

Prerequisite(s): ADES 2555, ADES 3550, ADES 3570.
Not offered every term/semester.

## ADES 3560 - Technical Design in Fashion

3 hours

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 2555, ADES 2560; MDSE 2650.

ADES 3565 - Fashion Accessories

3 hours (2;4)

Exploration of design process, product development, market research and production of fashion accessories.
Prerequisite(s): ART 1440, ART 1450.

## ADES 3570-Computers in Fashion: Presentation

3 hours (0;6)

Practical 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 2550, ADES 2555.

Not offered every term/semester.

## 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 2550, ADES 2555.

ADES 3580-History of Fashion to 1865

3 hours

Examination of fashion history through western culture from early civilization through 1865. Emphasis on research and critical thinking.
Prerequisite(s): ADES 2555 or consent of instructor.

Not offered every term/semester.

## ADES 3585-History of Twentieth-Century Fashion

3 hours

In-depth examination of significant 20th-century designers. Development of couture in fashion and related art trends. Texas Fashion Collection used as a major resource.

Prerequisite(s): ADES 2555 and ADES 3580 or consent of instructor.

Not offered every term/semester.

ADES 3610 - Interior Design: Presentation Techniques

3 hours (0;6)

Rendering methods; design board layout; graphics.
Prerequisite(s): ADES 2640.

Not offered every term/semester.

## ADES 3620 - Interior Design: AutoCAD

3 hours (2;4)

Basic AutoCAD software used in drafting and design applications. Software control for the production of industry standard drawings for both design presentation and construction documentation.

Prerequisite(s): ADES 2630, ADES 2640.
Not offered every term/semester.

## ADES 3630 - Interior Design: Space Planning II

3 hours (0;6)

Architectural elements of residential interiors - wall and floor space, reflected ceiling plans, lighting, surface materials and treatments; furnishing interior spaces.

Prerequisite(s): ADES 2640.
Not offered every term/semester.

## ADES 3635 - Interior Design: Detailing

3 hours

Introduction to methods and materials of basic detailing techniques for interior design. Emphasis on detailing and specification for interior products and finishes.

Prerequisite(s): ADES 3610, ADES 3620, ADES 3630.
Not offered every term/semester.

## ADES 3640 - Interior Design: Space Planning III

3 hours (2;4)

Residential interiors, developed floor plans, reflected ceiling plans, elevations and details including schedules and furniture specifications.

Prerequisite(s): ADES 2640, ADES 3620.
Not offered every term/semester.

## ADES 3645 - Interior Design: Building Systems

3 hours

Study of building systems, including lighting, plumbing, HVAC, fire detection/suppression and acoustics. Special emphasis placed on lighting technology, design and specifications.

Prerequisite(s): ADES 3610.

Not offered every term/semester.

## ADES 4515 - Cause-Based Design

3 hours (0;6)
Exploring the role of communication design in addressing societal and cultural issues.

Prerequisite(s): 6 credit hours of ADES 3545.

Corequisite(s): ADES 4520.

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## 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 credit hours of ADES 3545.

Corequisite(s): ADES 4515.
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.

## 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.
Corequisite(s): Must be taken concurrently with ADES 4520.

## 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 4515, ADES 4520.
Corequisite(s): ADES 4541.

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.

## 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.

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.

## 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.

Corequisite(s): Must be taken concurrently with ADES 4530.

## 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.

## ADES 4540 - Communication Design Studio

## 3 hours

Developing additional competence in special areas.

Prerequisite(s): Advanced standing and consent of instructor; specific studio courses may require additional prerequisites.

May be repeated for credit up to a total of 12 hours.

## 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): ADES 4515, ADES 4520

Corequisite(s): ADES 4525.

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.

## ADES 4545-Communication Design Lecture Topics

3 hours

Developing additional competence in special areas.

Prerequisite(s): Advanced standing and/or consent of instructor; specific courses may require additional prerequisites.
May be repeated for credit as topics vary.

## ADES 4550 - Fashion: Target Market

3 hours (2;4)

Design patternwork and construction of garments. Emphasis on fit, professional construction methods, research and appropriateness for target market.

Prerequisite(s): ADES 3555.

Not offered every term/semester.

## ADES 4555 - Fashion: Collection

Design, patternwork and construction of senior collection in preparation for Artwear fashion show. Critical analysis of garments by a jury of industry professionals.

Prerequisite(s): ADES 4550.

Corequisite(s): Concurrent enrollment in ADES 4580 required.
Not offered every term/semester.

## 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.

Not offered every term/semester.

## ADES 4580 - Fashion Design: Professional Practice

3 hours
Presentation boards, interview and job search techniques. Design portfolio development.

Prerequisite(s): ADES 4550.
Corequisite(s): Concurrent enrollment in ADES 4555 required.

## ADES 4590 - Fashion Design Studio

3 hours

Developing additional competence in special areas.

Prerequisite(s): Advanced standing and consent of instructor; specific studio courses may require additional prerequisites.

May be repeated for credit.

## ADES 4595 - Exploration: Fashion Design

3 hours

Research on selected topics or projects in fashion design. Includes field trips and classroom lectures.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary.

## ADES 4615 - Topics in Interior Design

3 hours

Research on selected topics or projects in interior design. Course includes field trips and classroom lectures.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary.

## ADES 4625 - Interior Design: Professional Practice

3 hours

Business and office practice, fees and commissions, preparing estimates, contracts, professional ethics and job opportunities. Student must pass senior portfolio review.

Prerequisite(s): ADES 4630.

Not offered every term/semester.

## ADES 4630 - Interior Design: Space Planning IV

3 hours (2;4)

Design of public and non-residential spaces; systems furniture; ergonomics; lighting; building systems; and concept development. Preparation of design presentation boards and design development drawings.

Prerequisite(s): ADES 3620, ADES 3635, ADES 3640, ADES 3645.

Not offered every term/semester.

## ADES 4640 - Interior Design: Space Planning V

3 hours (2;4)

Application of comprehensive problem-solving techniques, including research, programming, concept development, space planning, code review, design, detailing and systems integration for a large commercial space.

Prerequisite(s): ADES 4630.
Not offered every term/semester.

## ADES 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): MKTG 3650; MGMT 3850; fourth year status.

## ADES 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): ADES 4660.

## 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 faculty approval 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; communication design students must have junior standing; fashion design students must have completed ADES 3550.

May be repeated once for credit.

## Development and Family Studies

DFST 4250 - Grant Writing in Human Development and Family Studies

3 hours

Hands-on experience in writing successful grants. Interactive learning focused on planning, researching, budgeting, and implementing a request for funding.

Prerequisite(s): Junior or senior standing, HDFS 2042 or equivalent; or consent of instructor.

## Digital Retailing

## DRTL 2080 - Digital Authoring and Publishing Tools

3 hours

A study of basic website design for retailing.
Prerequisite(s): None.

DRTL 2090 - Introduction to Digital Retailing

3 hours

Survey of electronic merchandising and its application to consumer products and services for business to business and business to consumer. Introduction to electronic merchandising theory, terminology, resources, industry participants and career opportunities.

Prerequisite(s): None.

DRTL 3090 - Consumer Engagement in Digital Channels

3 hours

Students examine emerging digital technologies and their impact on the consumer experience. Emphasis is on exploration of new technologies (e.g., blogs, customer relationship management) and critical evaluation of their influence on merchandising and hospitality management strategies.

Prerequisite(s): Junior or senior standing.

## DRTL 3190 - Digital Retailing Strategies

3 hours

Survey of omni-channel retail strategies and their impact on consumer experience in digital markets. Emphasis is on understanding of digital technologies (e.g., customer relationship management, SEO, social media metrics) and critically evaluating their influence, particularly on digital merchandising strategies.

Prerequisite(s): DRTL 3090.

## DRTL 4070 - Digital Retail 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): DRTL 2090, MKTG 4620 or DRTL 2080; MDSE 3510, major in digital retailing, junior or senior standing or consent of instructor.

## DRTL 4090 - Virtual Merchandising

## 3 hours

Study and application of visual merchandising in a virtual format. Emphasis on merchandising processes that convey product characteristics to the consumer from production through distribution. Development of web site using computer software.

## DRTL 4660 - Advanced Merchandising Applications

3 hours

Capstone course requiring students to apply merchandising 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): DRTL 2090; MDSE 3510; MDSE 3750; MDSE 4010; major in digital retailing; plus 9 additional hours in the major with a grade of C or better.

DRTL 4900 - Special Problems

1-3 hours

Prerequisite(s): None.

DRTL 4910 - Special Problems

1-3 hours

Prerequisite(s): None.

## DRTL 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.

## Early Childhood Education

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.

Prerequisite(s): None.

## EDEC 3613 - Introduction to Early Childhood

3 hours

Historical foundations of early childhood education, current programs, educational/care practices and legal and ethical issues. Attention goes to objectives, activities, materials, and teaching strategies and techniques in an early childhood classroom.

Prerequisite(s): HDFS 1013.

## 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.

Prerequisite(s): HDFS 4233 (for DFST majors); EDEC 3613 (for all EC-6 certification students).

## 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 diversity, family, creativity and individual differences. Includes analysis of play theory and research. Field experience required.

Prerequisite(s): EDEC 3613.

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.

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.

## 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.

Prerequisite(s): None.

## 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.

## 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(s): None.

Prerequisite for most upper-level ECON courses.
Core Category: Social and Behavioral Sciences

## 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(s): None.

Prerequisite for most upper-level ECON courses. Satisfies the Social and Behavioral Sciences requirement of the University Core Curriculum.

Core Category: Social and Behavioral Sciences

ECON 2900-Special Problems

1-3 hours

Prerequisite(s): None.

## 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.

ECON 3000-Current Economic Issues

3 hours

Economic implications of current issues and problems using basic economic reasoning. Issues and problems may include defense, public debt, trade deficit, illegal drugs, education, technology, agriculture, poverty, crime, pollution, taxes, income distribution, recession, government regulation, competition, government spending, inflation, conservation, unemployment, subsidies and health.

Prerequisite(s): Junior standing.

Intended for students not required to take specific economics course(s); may not be substituted for ECON 1100-ECON 1110 or ECON 3550-
ECON 3560. Not open to economics or business majors.

ECON 3050 - The Economics of Consumption

3 hours

Consumer decision making and consumer issues in American economy. Application of economic theory to consumer decision making in higher education, net earnings and real income, financial planning, home ownership and personal investment; consumer information; government policies.

Prerequisite(s): ECON 1100, ECON 1110.

## ECON 3150 - Economics of Discrimination

3 hours

Examines the differences in economic status by gender, race and ethnicity. Intergroup differentials in income, unemployment, wages, education and housing are addressed.

Prerequisite(s): ECON 1100.

## ECON 3250 - Industrial Relations

3 hours

Employer/employee relations in the United States; structure, methods and objectives of labor unions and employer associations in an industrial system and changing institutional pattern.

Prerequisite(s): ECON 1100, ECON 1110.

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 A or B; MATH 1190 or MATH 1710, with a grade of C or better.

## 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 A or B.

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 only be taken once for Honors College credit.

## 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.

ECON 4030 - Economic Cycles and Forecasting

3 hours

Historical survey of economic cycles, theories and stabilization policies. Analysis of major economic aggregates involved in cycle turning points for economic expansion and contraction.

Prerequisite(s): ECON 1100 and ECON 1110 or consent of department.

May not be repeated at the graduate level as ECON 5080.

## 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.

## 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.

ECON 4150 - Public Economics

3 hours

Analysis of theoretical foundations, structure and performance of the public sector. Includes issues of public choice theory, market failures, taxing, spending, borrowing and subsidies.

Prerequisite(s): ECON 3550.
May not be repeated at the graduate level as ECON 5150.

## 3 hours

Application of economic theory and analysis to the financing and delivery of medical care. Emphasis on the use of economic concepts to understand health care markets and public policy issues.

Prerequisite(s): ECON 3550.
May not be repeated at the graduate level as ECON 5180.

## ECON 4250 - Current Economic Seminar: Topics

## 3 hours

Individually or team-taught courses that explore a current economic issue in depth. Topics may include (but are not limited to) economic issues of particular regions of the world, contemporary domestic economic policy issues and economic applications in new and interesting industries.

Prerequisite(s): ECON 1100, ECON 1110, ECON 3550.

May be repeated for credit as topics vary, for a maximum of 9 hours. May be used for duplication only when the topic is the same.

## ECON 4290 - Labor Economics

3 hours

Unemployment, industrial injuries, industrial old age, ill health and substandard employment; remedial program evaluation.

Prerequisite(s): ECON 3550.

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 3560.
May not be repeated at the graduate level as ECON 5420. Usually offered in spring.

## 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.

## ECON 4450 - Strategic Behavior Across Market Structures

3 hours

Examines the role of market structure on firm behavior, including profit maximization through strategic behavior. Additional topics addressed include the role of regulatory agencies and governments in markets, and non-price issues (such as social and environmental concerns). Empirical and theoretical models as well as case studies are used to analyze firm interactions within market structures.

## ECON 4460 - Industrial Organization and Public Policy

3 hours

Emphasizes relationships between structure, conduct and performance of industries. Topics include concentration, barriers to entry, pricing, mergers, product differentiation, technical change, antitrust and regulation. Case studies of selected American industries illustrate theory and public policy.

Prerequisite(s): ECON 3550 and MATH 1190.
May not be repeated at the graduate level as ECON 5460.

## 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 3550.

## 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.

## 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.

## ECON 4560 - Economic Damages in Litigation

## 3 hours

The growing role of economics in assessing damages in corporate litigation proceedings-typically termed forensic economics. Particular emphasis is given to case studies developed from recent industry activity in which students serve as the residing economic experts and are responsible for issuing an expert report setting forth their damages estimates and analyses.

Prerequisite(s): ECON 3550, ECON 3560, ECON 4630.

## 3 hours

General analysis and survey of development theories, and problems and policies involved with those countries that have not yet attained the level of economic well-being and integration observed in the United States.

Prerequisite(s): ECON 1100 and ECON 1110, or consent of department.

May not be repeated at the graduate level as ECON 5700

## ECON 4630 - Research Methods for Economists

## 3 hours

Research methodology for business and the social sciences. Topics include descriptive statistics, basic probability theory, discrete and continuous probability distributions, hypothesis testing and introductory regression techniques. Emphasis is placed on economics applications. A lab experience provides students with real world experience with topics they are exposed to in the lectures. Designed to prepare economics students for econometrics course work.

Prerequisite(s): ECON 1100; MATH 1100 or MATH 1180.

May not be repeated at the graduate level as ECON 5630.

## ECON 4650 - Urban Economics

## 3 hours

Uses economic analysis to understand the development of cities and regions and how economic activity in the areas is organized. Explores the economics of transportation and urban problems such as poverty, segregation, crime and congestion.

Prerequisite(s): ECON 3550.

May not be repeated at the graduate level as ECON 5750.

## ECON 4850 - International Trade

## 3 hours

Examines the nature and theoretical foundations of modern trade between nations. Topics include patterns of international trade and production, welfare implications of trade, impacts of tariffs and quotas, balance of trade and balance of payments issues. Analysis of trade implications of international monetary systems, multinational corporations, exchange rates and economic implications of political action.

Prerequisite(s): ECON 1100 and ECON 1110, or consent of department.

May not be repeated at the graduate level as ECON 5850.

## 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.

Prerequisite(s): ECON 1100 or ECON 1110 or consent of department.

## 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 MATH 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.

## 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 realworld, 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.

ECON 4900 - Special Problems

1-3 hours

Prerequisite(s): None.

## ECON 4910-Special Problems

1-3 hours

Prerequisite(s): None.

ECON 4920 - Cooperative Education in Economics

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 economics; student must meet employer's requirements and have consent of department chair.
Pass/no pass only.

## 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.

## Educational Foundations

EDUC 4800 - Studies in Education

1-3 hours

Organized classes for specific program needs and student interest.

Prerequisite(s): Consent of department.

Limited-offering basis. May be repeated for credit.

EDUC 4900-Special Problems

1-3 hours

Prerequisite(s): None.

EDUC 4910-Special Problems

1-3 hours

Prerequisite(s): None.

## Educational Psychology

## 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.

Prerequisite(s): None.

## 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.

## Electrical Engineering

## EENG 1910-Project I: Learning to Learn

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-major status.

Core Category: Component Area Option

EENG 1920 - Project II: Introduction to Electrical Engineering

3 hours (2;2)

Provides students the foundation necessary for the successful execution of electrical engineering design projects. The design process embodies the steps required to take an idea from concept to successful design. These steps include the requirements specification, architectural model, concept generation and evaluation, feasibility study, functional decomposition, design, testing, an overview of ethical and legal issues, and maintenance. Technical design tools such as MATLAB, VHDL and Spice software, critical to designing a project, are introduced. Small projects using these design tools are implemented. A final project requires team work, an oral presentation and a written project report.

Prerequisite(s): MATH 1710, EENG 1910.

## 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.

Corequisite(s): PHYS 2220/PHYS 2240.

Same as ENGR 2405.

## 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.

Corequisite(s): MATH 2730 or MATH 3410.

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.

## EENG 2900-Special Problems

## 1-3 hours

Individualized instruction in theoretical or experimental problems in electrical engineering.

Prerequisite(s): Consent of instructor.

May be repeated for credit. For elective credit only.

## EENG 2910 - Project III: Digital System Design

## 3 hours (2;2)

Digital system design projects that provide students substantial experience in logic analysis, design, logic synthesis in VHDL, and testing. Project documentation including all the phases of project cycle from requirement analysis to testing as well as a project presentation providing the students an opportunity to enhance their communication and presentation skills, are essential components of this course. Instructor may choose to include a mini-project for breadboard implementation with discrete components as a part of this course.

Prerequisite(s): EENG 2710.

## EENG 2920 - Project IV: Analog Circuit Design

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 1920, EENG 2610.

## 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.

## 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, MATH 3410.

## 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.

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.

## 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, EENG 2710

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, EENG 3510. MATH 1780 or MATH 3680.

EENG 3910 - Project V: DSP System Design

3 hours (2;2)

To study basic theory and applications of modern digital signal processing, to learn basic theory of real-time digital signal processing, and to develop ability to implement and simulate digital signal processing algorithms using MATLAB and on real-time DSP platform.

Prerequisite(s): EENG 2620.

## EENG 3920 - Project VI: Modern Communication System Design

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): None.

Corequisite(s): EENG 3520

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 only be taken once for Honors College credit.

## 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.
May be repeated for credit as topics vary. Maximum total number of repeat hours allowed is 12 hours.

## EENG 4310 - Advanced Topics in Control Systems Design

3 hours

Transform domain and state space representations of linear systems. System response, system stability, root locus method, frequency responsebased design, and state space system analysis and design.

Prerequisite(s): EENG 2620.

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.

## 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.

## 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.

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 $\mathrm{RF} /$ microwave circuits.

Prerequisite(s): EENG 3410.

## 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, EENG 3510.

## 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.

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.

## 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, MATH 3680.

## EENG 4900-Special Problems in Electrical Engineering

## 1-3 hours

Individualized instruction in theoretical or experimental problems in electrical engineering.

Prerequisite(s): Consent of instructor.

May be repeated for credit. For elective credit only.

3 hours

The senior design project course is a comprehensive electrical engineering design course providing major design experience. Students form teams of two to three members and work under the supervision of a faculty advisor. Identifying, formulating and solving an electrical engineering design problem of practical value under realistic design and implementation constraints by conforming to the engineering standards wherever appropriate. Development of an awareness of contemporary issues and professional ethics. Each project team is required to submit a proposal, present and submit a mid-term progress report, and present and submit a final report according to a prescribed project schedule.

Prerequisite(s): EENG 3810, EENG 3910, EENG 3920.

## 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.

## 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.

## EENG 4990 - Project VIII: Senior Design II

## 3 hours

The senior design project course is a comprehensive electrical engineering design course providing major design experience. Students form teams of two to three members and work under the supervision of a faculty advisor. Identifying, formulating and solving an electrical engineering design problem of practical value under realistic design and implementation constraints by conforming to the engineering standards wherever appropriate. Development of an awareness of contemporary issues and professional ethics. Each project team is required to submit a proposal, present and submit a mid-term progress report, and present and submit a final report according to a prescribed project schedule.

Prerequisite(s): EENG 4910.

## 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.

## 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.

## ELET 2900-Special Problems

1-4 hours

Prerequisite(s): None.

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.

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.

## ELET 3700 - Advanced Circuit Analysis

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4 hours (3;3)
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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.

## 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.

## 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, ELET 3750.

## ELET 3980 - Digital Control of Industrial Processes

3 hours (2;3)

Introduction to and use of programmable logic controllers; topics include terminology, basic and advanced relay logic programming, and connection and control of input/output devices. Emphasis is placed on interfacing, operating and programming a wide range of industrial automation devices.

Prerequisite(s): MATH 1650.

## 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 only be taken once for Honors College credit.

## 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 FieldProgrammable 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.

## 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.

## 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.

## 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): ELET 3750.

## 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 3740 .

## 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.

## 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.

## 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.

ELET 4900-Special Problems

1-4 hours

Prerequisite(s): None.

## ELET 4910-Special Problems

1-4 hours
Prerequisite(s): None.

## 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.

## 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.

## Elementary Education

## 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.

Prerequisite(s): None.

## 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.

## 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.

Prerequisite(s): Admission to the teacher education program (includes participation in a field-based program), a child/adolescent/lifespan development course, and an educational-application computer course.

## 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.

## EDEE 4101 - Student Teaching in EC through Grade 6

3 hours

Teaching under supervision in EC through grade 6.
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 EC-6 Generalist Certification).

Required for those seeking EC-6 certification. See Student Teaching Program for details. Pass/no pass only.

## EDEE 4102 - Student Teaching in EC through Grade 6

3 hours

Teaching under supervision in EC through grade 6.

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 EC-6 Generalist certification).

Required for those seeking EC-6 certification. See Student Teaching Program for details. Pass/no pass only.

## EDEE 4330 - Sciences in Grades EC-6

3 hours (3;0;16)

Subject matter background and material organization for an integrated science program in primary and elementary school. Students experience firsthand the scope and sequence of science education. Assignments, directed field experience and other class activities take place on site in an EC-6 school setting.

Prerequisite(s): EDEE 3320, EDEE 3380. Admission to the teacher education program, which includes participation in a field-based program; all courses in the reading/English/language arts part of the academic major; required core and academic major science courses and DFST classes.

## EDEE 4340 - Social Studies in Grades EC-6

## 3 hours (3;0;16)

Principles of teaching social studies in the 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. Assignments, directed field experience and other class activities take place in grades EC-6.

Prerequisite(s): Admission to the teacher education program, which includes participation in a field-based program, EDEE 3320, EDEE 3380; all courses in the reading/English/language arts part of the academic major; required core and academic major social studies courses and DFST classes.

## EDEE 4350 - Mathematics in Grades EC-8

## 3 hours (3;0;16)

Principles in mathematics teaching and learning based on national curriculum and assessment standards. The learning process in the development of mathematical thinking and skills in children. Students observe mathematics instruction and materials in real settings and experience firsthand the scope and sequence of mathematics in a primary/elementary/middle school setting. Assignments, directed field experience and other class activities take place on site in a school setting.

Prerequisite(s): Admission to the teacher education program, which includes participation in a field-based program, EDEE 3320, EDEE 3380; all courses in the reading/English/language arts part of the academic major; required core and academic major math courses and DFST classes.

## 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.

## EDEE 4810 - Studies in Education

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.

## EDEE 4890 - Inquiry into Classroom Practice

3 hours
Emphasis on reflective inquiry as teacher candidates relate theory and research to their own teaching experiences. The course addresses the following topics: inquiry into curricular content and structure, pedagogical practices, assessment approaches, student diversity, and equity issues as well as professional communication and engagement. Required for student teaching. Must be taken concurrently with student teaching.

Prerequisite(s): Successful completion of early student teaching and current placement in a field site for student teaching.

## EDEE 4900-Special Problems

1-3 hours

Prerequisite(s): None.

## EDEE 4910 - Special Problems

1-3 hours

Prerequisite(s): None.

## 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.

## Emergency Administration and Planning

## EADP 2700 - Current Issues in Emergency Management

3 hours

In-depth investigation of a contemporary issue of concern to emergency managers. Possible topics include catastrophic events, public health and disasters, volunteer organizations, and emergency medical services.

Prerequisite(s): None.

## 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.

## EADP 3010 - Introduction to 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.

Prerequisite(s): None.

## 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.

## 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.

## EADP 3055-EOC Design and Operations

3 hours

Emphasizes the principles of the design and operation of Emergency Operations Centers. 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, EADP 3045.

## 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.

Same as PADM 3020.

## 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 only be taken once for Honors College credit.

## 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.

Prerequisite(s): EADP 3010 or consent of department.

## 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.

Prerequisite(s): EADP 3010 or consent of department.

## 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.

3 hours

Historical review of how the Cold War, disasters and legislation have resulted in the creation of the Federal Emergency Management Agency. Examination of roles and inter-organizational relationships among FEMA and other federal agencies.

Prerequisite(s): EADP 3010 or consent of department.

## EADP 4030-Private Sector Issues

3 hours

Study of business continuity and the role of businesses in emergencies and disasters. Topics include business impact analysis, recovery planning and multi-organizational coordination.

Prerequisite(s): EADP 3010 or consent of department.

## 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.

Prerequisite(s): EADP 3010 or consent of department.

EADP 4050-Special Populations and Disasters

3 hours
Identification and examination of special populations in disasters. Discussion of their needs and service delivery strategies. Emphasis on relevant response agencies and programs.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

EADP 4060 - Technology in Emergency Management

3 hours

Examination of the use of technology and computers in emergency management. Topics include software, hardware, information management, communication equipment and future innovations.

Prerequisite(s): EADP 3010 or consent of department.

## 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.

## 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, EADP 3045. Enrollment is restricted to EADP majors who are in the final two semesters of their degree program.

## 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.

Prerequisite(s): EADP 3010 or consent of department.

## 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, EADP 3035, EADP 3045, and consent of internship coordinator.

Enrollment in this course is required for pre-career EADP students.

## 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.

## EADP 4900 - Special Problems

1-6 hours

Prerequisite(s): None.

## EADP 4910-Special Problems

## 1-6 hours

Prerequisite(s): None.

## 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.

## 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.

Prerequisite(s): None.
Core Category: Component Area Option

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.

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.

Prerequisite(s): Pre-engineering status.

ENGR 1304 - Engineering Graphics
(ENGR 1204 or ENGR 1304)

3 hours

Fundamentals and principles of engineering drafting practices used in technical processes.

Prerequisite(s): None.

ENGR 2301 - Statics
(ENGR 2301 or ENGR 2403)

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, PHYS 1730.

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, MATH 1720.

## ENGR 2332 - Mechanics of Materials

## 4 hours (3;3)

Relationships among loads placed on structural components; shape and size of components; resultant stresses, strains and deflections of components.

Prerequisite(s): ENGR 2301.

## ENGR 2405-Circuit Analysis

(ENGR 2307)

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.

Corequisite(s): PHYS 2220/PHYS 2240.

Same as EENG 2610.

## ENGR 2415-Circuit Analysis Lab

(ENGR 2107)

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.

Prerequisite(s): None.

Should be taken concurrently with ENGR 2405.

## 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; flipflops, registers and shift registers; finite state machines; microprocessor fundamentals.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

Should be taken concurrently with ENGR 2720.

## 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).

## ENGR 3450 - Engineering Materials

3 hours

Principles of bonding, structure, and structure/property relationships for metals and their alloys, ceramics, polymers and composites. Emphasis on properties and how processes change structure and, consequently, properties.

Prerequisite(s): PHYS 1710. CHEM 1410/CHEM 1430 or CHEM 1415/CHEM 1435.

## 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.

Prerequisite(s): None.
Corequisite(s): ENGR 3450.

## English

ENGL 1310 - College Writing I
(ENGL 1301)
3 hours

Writing as a means of ordering and shaping experience, information and ideas. Emphasis on perfecting texts through several drafts.

Prerequisite(s): None.
Core Category: Communication (English Composition and Rhetoric)

ENGL 1311 - Honors Composition I

3 hours

Process-oriented, writing-intensive course that provides students with the opportunity to write in response to their own experience, outside readings, and special topics selected by the instructor.

Prerequisite(s): Acceptance to Honors College.

May be substituted for ENGL 1310.
Core Category: Communication (English Composition and Rhetoric)

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.

Prerequisite(s): None.
May be substituted for ENGL 1310.

Core Category: Communication (English Composition and Rhetoric)

ENGL 1320-College Writing II
(ENGL 1302)

3 hours

Continuation of ENGL 1310. Writing in response to reading and research. Emphasis on perfecting texts through several drafts.

Prerequisite(s): ENGL 1310 or equivalent.

Core Category: Communication (English Composition and Rhetoric)

ENGL 1321 - Honors Composition II

3 hours

Continuation of ENGL 1311. Process-oriented, writing-intensive course that provides students with the opportunity to write in response to their
own experience, outside readings, and special topics selected by the instructor.

Prerequisite(s): Acceptance to Honors College.

May be substituted for ENGL 1320.

Core Category: Communication (English Composition and Rhetoric)

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)

ENGL 2100 - Introduction to Creative Writing
(ENGL 2307)

3 hours

Workshop and discussion based. Examines how writers explore and articulate their experiences of the larger world through using the range of technical and expressive possibilities available in poetry, fiction and creative nonfiction. Writings include original works in each genre. Readings cover a wide and diverse group of examples.

Prerequisite(s): None.

ENGL 2210 - Survey of World Literatures from Antiquity to 1700
(ENGL 2332)
3 hours

Comparative and critical reading skills from a global perspective, tracing significant literary themes, texts, movements and genres across a wide range of world literatures and cultures from Antiquity to 1700.

Prerequisite(s): 3 semester hours of freshman-level English or equivalent.

Core Category: Language, Philosophy and Culture

ENGL 2211 - Survey of World Literatures from Antiquity to 1700

3 hours

Comparative and critical reading skills from a global perspective, tracing significant literary themes, texts, movements and genres across a wide range of world literatures and cultures from Antiquity to 1700.

Prerequisite(s): 3 semester hours of freshman-level English or equivalent. Acceptance to Honors College.

Core Category: Language, Philosophy and Culture
(ENGL 2333)

3 hours

Comparative and critical reading skills from a global perspective, tracing significant literary themes, texts, movements and genres across a wide range of world literatures and cultures from 1700 to the present day.

Prerequisite(s): 3 semester hours of freshman-level English or equivalent.

Core Category: Language, Philosophy and Culture

ENGL 2221 - Survey of World Literatures from 1700 to the Present

3 hours

Comparative and critical reading skills from a global perspective, tracing significant literary themes, texts, movements and genres across a wide range of world literatures and cultures from 1700 to the present day.

Prerequisite(s): 3 semester hours of freshman-level English or equivalent. Acceptance to Honors College.

Core Category: Language, Philosophy and Culture

ENGL 2322 - British Literature to 1780
(ENGL 2322)

3 hours

Masterpieces of British literature from Beowulf through the Enlightenment.

Prerequisite(s): 3 semester hours of freshman-level English or equivalent.

ENGL 2323 - British Literature 1780 to Present
(ENGL 2323)

3 hours

Masterpieces of British literature from the Romantic Period to present.

Prerequisite(s): 3 semester hours of freshman-level English or equivalent.

ENGL 2327 - American Literature to 1870
(ENGL 2327)

3 hours

Masterpieces of American literature from the Colonial Period through the Romantic Period.

Prerequisite(s): 3 semester hours of freshman-level English or equivalent.

ENGL 2328 - American Literature from 1870 to Present
(ENGL 2328)

3 hours

Masterpieces of American literature from the Realistic Period through the present.

Prerequisite(s): 3 semester hours of freshman-level English or equivalent.

ENGL 2352 - Readings in the Short Story and Novel, Especially Modern American Literature and Culture

3 hours

Prerequisite(s): TECM 1322 or equivalent.
May be substituted for ENGL 2210 by international students only.

ENGL 2362 - Readings in Poetry and Drama, Especially Modern American Works

3 hours

Prerequisite(s): TECM 1322 or equivalent.

May be substituted for ENGL 2220 by international students only.

ENGL 2900 - Special Problems
$1-3$ hours
Prerequisite(s): None.

ENGL 2910 - Special Problems

1-3 hours

Prerequisite(s): None.

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.

ENGL 3000 - Introduction to Literary Analysis and Interpretation Skills

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.
Core Category: Component Area Option

ENGL 3110 - Academic Writing in the Humanities

## 3 hours

Intermediate-level study in essayistic and academic literacies. Practice-centered approach to writing, with a particular focus on drafting, revision, and research-based academic argument.

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.

ENGL 3140 - Intermediate Creative Writing: Fiction

3 hours

Principles and practices in the writing of fiction.

Prerequisite(s): None.

ENGL 3150 - Intermediate Creative Writing: Poetry

3 hours

Principles and practices in the writing of poetry.

Prerequisite(s): None.

ENGL 3160 - Intermediate Creative Writing: Non-Fiction

3 hours

Principles and practices in the writing of non-fiction.
Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

ENGL 3360 - Survey of Classical Literature

3 hours

Survey of Greek and Roman literature with emphasis on the mythology of the Classical Age.

Prerequisite(s): None.

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.

Prerequisite(s): None.

ENGL 3431 - Introduction to Early Medieval Literature

3 hours

Study of the major works and genres of English and Continental literature from 750-1150 in Western Europe; provides an introduction to these works in their literary and cultural context.

Prerequisite(s): None.

ENGL 3432 - Introduction to Late Medieval Literature

3 hours

Masterpieces of late medieval literature from 1150-1500, excluding the Canterbury Tales; provides an introduction to these works in their literary and cultural context.

Prerequisite(s): None.

## ENGL 3433 - Medieval Women Writers

3 hours

Study of major women writers and their works in the Middle Ages.
Prerequisite(s): None.

ENGL 3434 - British Renaissance Drama

3 hours

Study of Tudor and Jacobean drama, focusing on major writers other than Shakespeare, including Lyly, Marlowe, Kyd, Jonson, Webster, Middleton, and Ford; provides an introduction to these works in their literary and cultural context.

Prerequisite(s): None.

ENGL 3435 - British Renaissance Poetry

3 hours

Study of major poets of the British Renaissance, such as Wyatt, Surrey, Sidney, Spenser, Shakespeare, Jonson, Donne, Wroth, Milton, Marvell, and Herrick; provides an introduction to these works in their literary and cultural context.

Prerequisite(s): None.

ENGL 3436 - Introduction to Eighteenth-Century British Literature

3 hours

Introduction to the major literary genres, authors, and ideas of the British eighteenth century.

Prerequisite(s): None.

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.

Prerequisite(s): None.

ENGL 3441 - Introduction to Romantic Literature

3 hours

A survey of English-language texts written by Romantic writers (early to mid-19th-century British writers) such as William Wordsmith, Mary Shelley, Samuel Taylor Coleridge, Percy Shelley, George Gordon, Lord Byron, John Keats, Maria Edgeworth, William Blake, Mary Wollstonecraft, and others.

Prerequisite(s): None.

ENGL 3442 - Introduction to Victorian Literature

3 hours

A survey of English-language texts written by Victorian writers (mid-to late-19th-century British writers) such as Charles Dickens; Alfred, Lord Tennyson; Robert Browning; Charlotte Bronte; Oscar Wilde; Walter Pater; John Ruskin; and others.

Prerequisite(s): None.

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): None.

## 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.

Prerequisite(s): None.

ENGL 3831 - Introduction to 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.

Prerequisite(s): None.

ENGL 3832-Nineteenth-Century American Poetry

3 hours
A study of nineteenth-century American poetry, including Dickinson, Whitman, and other significant poets; provides an introduction to nineteenth-century poetic forms in their literary and cultural context.

Prerequisite(s): None.

ENGL 3833 - The American Renaissance

3 hours

A study of American cultural and literary expression from approximately 1830 to 1860, including works by major authors such as Ralph Waldo Emerson, Emily Dickinson, Herman Melville, and Frederick Douglass, as well as other literary and visual texts.

Prerequisite(s): None.

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.

Prerequisite(s): None.

ENGL 3843-Twentieth- and Twenty-first-Century American Poetry

3 hours
A study of 20th-century American poetry; provides an introduction to 20th-century poetic forms in their literary and cultural context.

Prerequisite(s): None.

ENGL 3844 - Contemporary Native American Literature

3 hours

Study of literature and other writings by Native Americans from 1900 to the present; provides an introduction to these works in their literary and cultural context.

Prerequisite(s): None.

ENGL 3845 - Nineteenth-Century Literature of the U.S.-American West

3 hours
An in-depth study of the influential genre of U.S. Western literature in the nineteenth century.

Prerequisite(s): None.

ENGL 3846 - Mexican American Non-Fiction and Criticism

## 3 hours


#### Abstract

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.

Prerequisite(s): None.


ENGL 3847 - 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.

Prerequisite(s): None.

ENGL 3850 - 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.

Prerequisite(s): None.

ENGL 3910 - Special Studies in Literature

1-3 hours

Selected major authors, significant literary periods, thematically related literary works or topics of interest.

Prerequisite(s): None.

May be repeated for credit as topics vary.

ENGL 3911 - Topics in British Literature

3 hours

Consideration of genres, themes, movements, authors and their relationship to the cultural contexts of the age.

Prerequisite(s): None.

ENGL 3912-Topics in American Literature

3 hours

Consideration of genres, themes, movements, authors and their relationship to the cultural contexts of the age.
Prerequisite(s): None.

ENGL 3913 - Topics in World Literature

3 hours

Consideration of genres, themes, movements, authors and their relationship to the cultural contexts of the age.

Prerequisite(s): None.

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.

Prerequisite(s): None.

ENGL 3921-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.

Prerequisite(s): None.

ENGL 3922 - Chicano Literature

3 hours

Study of historical as well as contemporary Mexican American and Chicana/o literature and cultural production. Works may range from the local to the national and global, and may include indigenous American, Spanish colonial and Mexican national writings.

Prerequisite(s): None.

## ENGL 3923-American Jewish Literature

3 hours

Study of the cultural contexts and aesthetic qualities of American Jewish literature. Readings may include works by Isaac Bashevis Singer, Saul Bellow, Philip Roth and Cynthia Ozick, among others.

Prerequisite(s): None.
May be used to fulfill a requirement for the Jewish studies minor.

ENGL 3924 - Women's Literature

3 hours

Studies in literature written by or about women.

Prerequisite(s): None.
Same as WGST 3720.

May be repeated for credit as topics vary.

## 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 only be taken once for Honors College credit.

## ENGL 4100 - Advanced Fiction Writing

3 hours

Advanced study and practice of fiction writing in a workshop setting.

Prerequisite(s): ENGL 3140 or consent of department.

ENGL 4110 - Advanced Poetry Writing

3 hours

Advanced study and practice of poetry writing in a workshop setting.
Prerequisite(s): ENGL 3150 or consent of department.

ENGL 4120 - Advanced Creative Writing: Non-Fiction

3 hours

Advanced study and practice of non-fiction writing in a workshop setting.

Prerequisite(s): ENGL 3160 or consent of department.

ENGL 4150 - Literary Criticism

3 hours

Principles based on representative readings from major critics; essays and class exercises in forming independent critical judgment.

Prerequisite(s): None.

ENGL 4185 - Advanced Academic Writing

3 hours

Examination of writing techniques, rhetorical strategies and research methodologies entailed in writing successful papers for post-graduate studies in literature.

Prerequisite(s): Upper-division status.

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.

Prerequisite(s): ENGL 3000 or its equivalent.

3 hours

Study of theories, practices and questions raised after the "rhetorical turn" of the 20th century.
Prerequisite(s): None.

## 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.

Prerequisite(s): ENGL 3210.

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.

Prerequisite(s): ENGL 3200, ENGL 4200.

May be repeated for credit as topics vary.

ENGL 4290 - World Drama

3 hours

Comparative study of Greek, Latin, Spanish, French, Russian, Japanese, Indian and English masterpieces; drama as a reflection of changing ideologies, customs and dramatic conventions.

Prerequisite(s): None.

ENGL 4300 - Modern Drama

3 hours

Comparative survey of drama from the late-19th century to the present, emphasizing the globalization and increasing multiculturalism of the genre. Playwrights studied may include Henrik Ibsen, Bernard Shaw, Bertolt Brecht, Jean Genet, Wole Soyinka, Amiri Baraka, Caryl Churchill, Athol Fugard, August Wilson and David Henry Hwang.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

ENGL 4420 - Poetry

3 hours

Methods of reading and analyzing poetry; techniques of explication. Includes poetry from a variety of cultures.
Prerequisite(s): None.

ENGL 4430 - Shakespeare

3 hours

Representative comedies, histories and tragedies; survey of Shakespeare's life; his relation to his predecessors and contemporaries.

Prerequisite(s): None.

ENGL 4431 - Studies in Medieval Literature

3 hours

In-depth study of Medieval literature, from a particular critical, cultural, historical, or philosophical perspective.

Prerequisite(s): None.
May be repeated as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English major requirements.

ENGL 4432 - Studies in Renaissance Literature

3 hours

In-depth study of Renaissance literature, from a particular critical, cultural, historical, or philosophical perspective.

Prerequisite(s): None.
May be repeated as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English major requirements.

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.

Prerequisite(s): None.

May be repeated as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English major requirements.

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.

Prerequisite(s): None.

May be repeated as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English major requirements.

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.

Prerequisite(s): None.
May be repeated as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English major requirements.

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.

Prerequisite(s): None.

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.
Prerequisite(s): Upper-division status.

May be repeated for credit as topics vary.

## ENGL 4470-British Drama

3 hours

May be offered as a survey from the origins into the 20th century or as a study of any of the major periods in the survey: medieval, Renaissance, Restoration and modern.

Prerequisite(s): None.
May be repeated for credit as topics vary.

ENGL 4480-American Drama

3 hours

Offered as a historical survey of American drama or as a study of major authors and schools. Authors may include O'Neill, Miller, Williams, Hansberry, Albee.

Prerequisite(s): None.

May be repeated for credit as topics vary.

## 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.

Prerequisite(s): None.

ENGL 4600 - Continental European Fiction

3 hours

Study and analysis of continental European novels and short stories in translation. Works by Tolstoy, Dostoevsky, Balzac, Flaubert, Chekhov, Zola and others.

Prerequisite(s): None.

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.

Prerequisite(s): Upper-division standing.

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.

Prerequisite(s): None.

ENGL 4700 - Methods of Teaching Language Arts in the Secondary Grades

3 hours

Strategies for teaching writing and literature effectively in secondary language arts programs. Emphasis on a variety of techniques.

Prerequisite(s): None.

Must be taken during the last two terms/semesters of course work before student teaching.

ENGL 4760-Specialized Expository Writing

3 hours

Application of rhetorical, analytical and organizational principles to the writing of expository prose in specialized areas of study.

Prerequisite(s): None.

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."

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

May be repeated as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English major requirements.

## 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.

Prerequisite(s): None.
May be repeated as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English major requirements.

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.

Prerequisite(s): None.

May be repeated as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English Major requirements.

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.

Prerequisite(s): None.

May be repeated for credit as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English major requirements.

## 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.

Prerequisite(s): None.
May be repeated for credit as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English major requirements.

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.

Prerequisite(s): None.
May be repeated as topics vary for a maximum of 6 hours, but only 3 hours can apply to the English major requirements.

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.

Prerequisite(s): Junior or senior standing.

May be repeated for credit as topics vary.

ENGL 4900-Special Problems

1-3 hours
Prerequisite(s): None.

ENGL 4910 - Special Problems

1-3 hours
Prerequisite(s): None.

ENGL 4920 - Cooperative Education 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.

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.

## Ethnomusicology

## MUET 3020 - Popular Music in American Culture

3 hours

Historical development of popular musical styles, including Tin Pan Alley, Blues, Country and Western, Big Band Swing, 1950s Rock and Roll, Rhythm and Blues, Soul, the British Invasion, Art Rock, Punk, Reggae and Heavy Metal. These musical styles are explored as part of the sociocultural complex in which they developed.

Prerequisite(s): None.
For non-music majors.

MUET 3030 - Music Cultures of the World

3 hours

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.

Prerequisite(s): None.

Open to students in any major.
Core Category: Language, Philosophy and Culture

MUET 3040 - Ethnomusicology Studies Abroad

3 hours

Study and experience music cultures in their traditional settings. Field school locations include Africa, India and China. On-site visits to celebrations, ceremonies and rituals are combined with instruction by traditional musicians and guest lectures by cultural bearers. Musical traditions are studied from a perspective that emphasizes participant observation.

Prerequisite(s): None.

Taught with MUET 5040.

Open to majors from all fields of study. No formal musical training required. May be repeated for credit as topics/locations vary.

## 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.

Prerequisite(s): None.
Taught with MUET 5050.

Open to majors of all fields. No formal musical training is needed.

## 3 hours

Exploration of the experiences of blacks 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 AfricanAmerican cultural experiences, interrogating the musical, philosophical and behavioral links between a Saturday night crowd and a Sunday morning people.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

May be repeated for credit as topics vary.

## 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.

Prerequisite(s): None.

May be repeated for credit as topics vary.

MUET 3090-Music of India

3 hours

Study of Indian music culture from Vedic times to the present day. Course materials cover classical traditions (both North Indian Hidusthani and South Indian Carnatic styles), folk and popular music. These genres are explored from the socio-cultural contexts in which they developed and continue to function.

Prerequisite(s): None.

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.

Prerequisite(s): None.

Same as DANC 3617.

May be repeated for credit.

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.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

May be offered when other required courses are unavailable. Not open to graduate students.

## Finance

## FINA 1000 - Freshman Investment Seminar

1 hour

Fundamentals of finance mathematics, risk and return, the money market, the bond market, the stock market, and investment companies. The investigation of investment companies will include both closed-end funds and open-end (mutual) funds, including how market information is reported in the financial media.

Prerequisite(s): None.

FINA 2770 - Personal Finance
(BUSI 1307)
3 hours

Financial planning, insurance, budgeting, credit, home ownership, savings, investment and tax problems.

Prerequisite(s): None.

## 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.

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.

## 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 only be taken once for Honors College credit.

## 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 and ACCT 2010 and ACCT 2020 or equivalent with grades of C or better.

## 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.

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. Proforma statement development for effective financial management.

Prerequisite(s): FINA 3770 with a grade of C or better.

FINA 4310 - Valuation and Financial Decisions

3 hours

This course develops a conceptual valuation framework for investment, capital structure and dividend decisions. Each is examined for its impact on the risk return characteristics of the firm. In addition, long-term financing decisions are discussed.

Prerequisite(s): FINA 3770 with a grade of C or better.

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.

FINA 4410-Advanced Topics in Financial Institutions and Markets

3 hours

May include topics such as application of the theory of finance to the management of financial institutions, analysis of fixed income securities including valuation of embedded options, study of international financial markets, or other topics selected by the instructor.

Prerequisite(s): FINA 4400 (may be taken concurrently).

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.

## FINA 4610-Comprehensive Financial Planning

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.

Prerequisite(s): FINA 4200 with grade of C or better.

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 as topics vary.

FINA 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 department chair.

Pass/no pass only.

## FINA 4900-Special Problems

$1-3$ hours

Prerequisite(s): None.

## 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.

## French

## FREN 1010 - Elementary French

(FREN 1311 or FREN 1411 or FREN 1511)
3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): None.

FREN 1020 - Elementary French
(FREN 1312 or FREN 1412 or FREN 1512)
3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): FREN 1010 or equivalent.

FREN 1610 - 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.

Prerequisite(s): None.

Core Category: Component Area Option

FREN 1620 - The French Language in Canada

3 hours

Explores language policies, language contact and other issues related to the French language in Canada.
Prerequisite(s): None.

Core Category: Component Area Option

FREN 2040 - Intermediate French
(FREN 2311)

3 hours
Grammar, composition, oral-aural practice and readings.

Prerequisite(s): FREN 1020 or equivalent.

FREN 2050 - Intermediate French
(FREN 2312)

3 hours

Grammar, composition, oral-aural practice and readings.
Prerequisite(s): FREN 2040 or equivalent.

FREN 2900-Special Problems

1-3 hours

Prerequisite(s): None.

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.

FREN 3040 - France Today

3 hours

Selected readings and video sequences in contemporary French culture with emphasis on communication skills.

Prerequisite(s): FREN 2050 or equivalent.

Core Category: Language, Philosophy and Culture

FREN 3045 - The Francophone World

3 hours

Exploration of the diverse histories, cultures, and societies of the French-speaking world through readings and films.
Prerequisite(s): FREN 2050 or equivalent.

FREN 3050 - 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.

FREN 3055 - Image of the Artist in France Throughout 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.

## FREN 3060 - French Phonetics and Pronunciation

3 hours

Focus on French phonetic system and pronunciation practice.
Prerequisite(s): FREN 2050 or equivalent

## FREN 3065 - Advanced French Conversation

3 hours
Study of themes related to contemporary French experience and heavily oriented toward conversation on topics of interest to contemporary youth.

Prerequisite(s): FREN 2050 or equivalent.

FREN 3070 - Advanced French Grammar and Composition

3 hours

Focus on French grammar and intensive practice through various composition assignments and grammar exercises.
Prerequisite(s): FREN 2050 or equivalent.

FREN 3075 - Writing in French: Style and Technique

3 hours

Perfection of writing skills and strategies through various forms of composition.

Prerequisite(s): FREN 2050 or equivalent.

FREN 3090 - Professional French

3 hours

French terminology and behavioral patterns related to the workplace in order to communicate in a French professional environment including employment practices and formalities for daily life. Can serve as preparation for students planning to spend a semester/year in a French-speaking country, or for relocating professionals.

Prerequisite(s): FREN 2050 or equivalent.

FREN 3350 - The French: Myths and Realities

3 hours

Exposes and explores cultural and social myths and realities associated with the French.

Prerequisite(s): FREN 2050 or equivalent.

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 only be taken once for Honors College credit.

## FREN 4060 - Studies in French Literature

3 hours

French literature from any period from the Middle Ages to the present. Interdisciplinary studies of literature through art and film.

Prerequisite(s): 6 hours of advanced French or consent of department.
May be repeated for credit as topics vary.
Core Category: Language, Philosophy and Culture

FREN 4070 - French Culture and Literature through Film

3 hours

The thematic and chronological study of French literature and culture through films. Relations between literature/culture and film are explored.
Prerequisite(s): 6 hours of advanced French or consent of department.

## FREN 4080-Business French

3 hours

Students become familiar with business terminology in French. They also learn to function in a French business environment, including writing business letters, conducting telephone conversations and business meetings.

Prerequisite(s): 6 hours of advanced French, including FREN 3070 as prerequisite or corequisite.

This course serves as preparation for the exam leading to the Diplôme de Français Professionnel of the Paris Chamber of Commerce and Industry. No previous background in business is required.

## FREN 4085 - French Media and Current Events

3 hours

The role of traditional and digital media and the coverage of current events in France.
Prerequisite(s): 6 hours of advanced French or consent of department.

## FREN 4090 - French for Tourism

3 hours

Major facets of tourism in France and French overseas territories: overview of French regions with their characteristics, landmarks for visits and excursions, transportation, types of accommodation available to tourists and cuisine. The tourism industry and the organization of guided tours.

Prerequisite(s): 6 hours of advanced French or consent of department.

## 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.

Same as GERM 4150 and SPAN 4150

Designed for students in a teacher preparation program. May not be counted toward a minor in French.

## FREN 4310 - Contemporary French Civilization

3 hours

A survey of contemporary French society including institutions, the value system and current issues. Readings, discussions and audiovisual materials.

Prerequisite(s): 6 hours of advanced French or consent of department.

Core Category: Language, Philosophy and Culture

FREN 4400 - French Linguistics and Translation

3 hours

Study of French grammar, semantics, stylistics and syntax through linguistic problem solving and translation from English to French and vice versa.

Prerequisite(s): 6 hours of advanced French or consent of department.

FREN 4410 - French Sociolinguistics

3 hours

Exploration and analysis of language variation in French and social dimensions of French language use.

Prerequisite(s): 6 hours of advanced French or consent of department.

FREN 4900 - Special Problems

1-3 hours

Prerequisite(s): None.

FREN 4910 - Special Problems

1-3 hours

Prerequisite(s): None.

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.

## 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.

## General Music

## MUGC 4000 - The Business of Music

3 hours (2;1)

Survey of the contemporary business of music, focusing on economic realities unique to the music industry and on available career options in music.

Prerequisite(s): Consent of college.

## MUGC 4890 - Studies in Music

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.

Prerequisite(s): None.

May be repeated for credit.

## 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.

Prerequisite(s): None.

May be offered when other required courses are unavailable. Not open to graduate students.

## 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.

Prerequisite(s): None.
May be offered when other required courses are unavailable. Not open to graduate students.

## Geography

GEOG 1200 - Global Societies
(GEOG 1303)

3 hours

Geographical characteristics, major problems and role of major world regions; emphasis on Central and South America, Africa, Middle East and Asia.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

## 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.

Prerequisite(s): None.

Core Category: Component Area Option

GEOG 1710 - Earth Science
(GEOL 1401)

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.

Prerequisite(s): None.

Core Category: Life and Physical Sciences

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.

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.

Prerequisite(s): None.

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): None.

GEOG 2900-Special Problems

1-3 hours

Individual readings and laboratory research projects in geology, earth and regional sciences.
Prerequisite(s): None.

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.

GEOG 3010 - Economic Geography

3 hours

Geographic principles applied to understanding regional specialization of economic activity. National and international variations in agriculture, energy, manufacturing, service activities and commodity flows.

Prerequisite(s): GEOG 1200 or GEOG 2170, or consent of department.

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.

Prerequisite(s): None.

## GEOG 3420 - Applied Biogeography

3 hours

Survey of biogeographic principles and their application to wildlife and ecosystem conservation and management practices.

Prerequisite(s): None.

## 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.

Prerequisite(s): Consent of department.
*These hours are combined lab and lecture.

## 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 SubSaharan Africa's physical and cultural landscape, contemporary problems and the challenge and prospect of development and globalization.

Prerequisite(s): GEOG 2110 or consent of department.

## GEOG 3770 - Latin America: Geography and Globalization

## 3 hours

Extensive analysis of the geography, history, environment, economics, culture and development of Latin America. Critical investigation of the commodification of key natural resources in the region, with linkage to resource issues encountered in other major world regions. Provides a general introduction to the environments and people of Latin America.

Prerequisite(s): None.

## GEOG 3780 - Geography of Mexico

3 hours

Regional analysis of the biophysical environment, historical developments, and current economic, political, and cultural landscapes of Mexico.

Prerequisite(s): None.

## 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 only be taken once for Honors College credit.

## GEOG 4030 - British Isles Field School

6 hours

Application of geographical field techniques in the British Isles and Ireland. The field school is centered on five base sites - Plymouth, Cork, Galway, Aberystwyth and Edinburgh. At each site, students conduct one-day human and physical geography field exercises. Topics include mapping historic changes in commercial functions in Plymouth; combining field mapping, air photo and map analysis to measure coastal erosion
in Cork; field survey of rural service provision in Tipperary County; physical and human dimensions of flood hazard in Aberystwyth; comparison of medieval, Georgian and modernist town planning in Edinburgh. Duration of field work is approximately three weeks.

Prerequisite(s): GEOG 2110, GEOG 2170 and GEOG 2180, or consent of department.

## GEOG 4040 - Ghana Field School

6 hours

Geography of health and economic development in Ghana. Trip includes visits to herbalists, hospitals and rural clinics, a gold mine, slave castles, and industrial sites such as cocoa processing plants and timber mills. Duration of field work is approximately three weeks.

Prerequisite(s): GEOG 3750 or consent of department.

## GEOG 4050-Cartography and Graphics

3 hours (1;2)
Construction and interpretation of topographic maps; thematic mapping of geographically referenced data; field mapping and surveying techniques; introduction to global positioning systems and computer cartography.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## GEOG 4070-China Field School

6 hours

Introduces skills in field observation, analysis, and interpretation for a variety of geographical, geological, and environmental problems, and experience diverse landscapes and cultures in China. Students visit cultural and historic sites, and experience the rich ethnic cultures.

Prerequisite(s): GEOG 1710 or GEOG 2180, or consent of department.

## GEOG 4120 - Medical Geography

3 hours

Locational aspects of disease and health care, spatial patterns of diseases, health facilities, health care policies and problems.
Prerequisite(s): GEOG 2110, GEOG 2170, GEOG 3500, and MATH 1680, or consent of department.

## GEOG 4150 - Epidemiological Research Methods in Spatial Perspective

3 hours

Spatial analysis of observed health outcomes with an emphasis on the geographical considerations that are important to the design and interpretation of epidemiological studies. Specific topics covered include the basic principles and methods used in epidemiology, geographical sampling and population study designs and relevant statistical/analytical methodologies.

Prerequisite(s): MATH 1680 or equivalent.

## GEOG 4170 - Mapping and Field Methods

3 hours

Evaluation and interpretation of aerial photography and satellite images from the most common sensing devices. Base maps and field methods.

Prerequisite(s): GEOG 2180 or consent of department.

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 and GEOG 2110, or consent of department.

Meets with GEOG 5185.

GEOG 4210 - Urban Geography

3 hours

Urban geography of advanced nations. Specific topics include urban systems analysis, the internal geography of cities and contemporary spatial and social changes in urban areas.

Prerequisite(s): GEOG 2110 and GEOG 2170, or consent of department.

## 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.

Prerequisite(s): GEOG 2110 and GEOG 2170, or consent of department.

## GEOG 4240 - Meteorology

3 hours

Weather elements and controls; air masses and upper air wind flow; emphasis on atmospheric storm systems.

Prerequisite(s): GEOG 2110 and GEOG 2180, or consent of department.

GEOG 4250 - Climatology

3 hours

Description and analysis of world climates; major classifications, controls, regional distribution and change.
Prerequisite(s): GEOG 2110 and GEOG 2180, or consent of department.

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 2180 or consent of department.

## GEOG 4400-Introduction to Remote Sensing

3 hours (2;1)
Principles of remote sensing technology, including the physical principles of remote sensing, aerial photography, airborne and space-borne multispectral and hyperspectral imaging, and thermal and microwave imaging. Analytical techniques and applications of remotely sensed data in geography and other fields. Teaches skills for handling both analog and digital remote sensing data through visual interpretation and computerbased digital image processing.

Prerequisite(s): GEOG 2110 and GEOG 2180, or consent of department.

## 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.

Prerequisite(s): None.

## GEOG 4420 - Critical Resource Geography: Population, Nature, Food and Energy

3 hours

Examines theories and case studies of nature-society relations, human resources, and nature and natural resources. Focuses on political economy of resource security, commodification and marketization of nature, and sustainability across geographical scales. Fosters critical thinking and environmental responsibility.

Prerequisite(s): GEOG 1200 or GEOG 2170, or consent of department.

## GEOG 4520 - Intermediate Geographic Information Systems

3 hours (1;0;2*)

Step-by-step approach to spatial data integration and analysis, and cartographic presentation. Topics include data models and structures, map algebra, surface analysis, 3-dimensional rendering, network analysis, sharing and distributing maps, and design 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) or consent of department.
*These hours are combined lab and lecture.

## 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 project planning, database development, data manipulation and analysis, model building, internet mapping, 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 4520 (with a grade of C or better) or consent of department.
*These hours are combined lab and lecture.

## GEOG 4560 - Introduction to GIS Programming

## 3 hours (1;0;2*)

Modern GIS embraces the concept of open systems, which means GIS software can be customized to fit specific requirements of individual implementation environments. To meet the high demand of this kind, this course introduces basic concepts and skills of object-oriented programming and GIS customization. Students gain programming skills in accessing maps, data layers, features and geometric objects through laboratory exercises.

Prerequisite(s): None.
*These hours are combined lab and lecture.

## 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): Consent of department.

## 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): None.

## 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 or consent of department.

## 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 2110, GEOG 2180 and MATH 1680, or consent of department.

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.

## 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 or consent of department.

May be repeated for credit as topics vary.

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 or consent of department.
May be repeated for credit as topics vary up to a maximum of 12 hours.

GEOG 4900-Special Problems

1-3 hours

Prerequisite(s): None.

GEOG 4910-Special Problems

1-3 hours

Prerequisite(s): None.

## GEOG 4920 - Cooperative Education in Geography

3 hours

Job experience in a government agency and/or business for geography majors. Requires participation in a formal project.

Prerequisite(s): A minimum of 12 hours completed in the major, a 2.5 GPA in the major and consent of the internship director.

May apply toward Group A, Group B or Techniques group at discretion of advisor. May be repeated for credit.

## 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.

## GEOG 4960-Geography Institute

3 hours

For students accepted by the university as participants in special institute courses.

Prerequisite(s): None.

May be repeated for credit as topics vary.

## Geology

## GEOL 1610 - Introductory Physical Geology

(GEOL 1403)
3 hours (3;2)

Systematic introduction to geology; internal and external processes that contribute to the earth's rock record; includes consideration of minerals, the earth's interior, volcanoes, mountain building, and terrestrial and oceanic sedimentation.

Prerequisite(s): None.

Core Category: Life and Physical Sciences

## 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.

## 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): GEOG 2180 or consent of department.

## 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, or consent of department.

## GEOL 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 or consent of department.

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, or consent of department.

## German

## GERM 1010 - Elementary German

(GERM 1311 or GERM 1411 or GERM 1511)

3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): None.

GERM 1020 - Elementary German
(GERM 1312 or GERM 1412 or GERM 1512)

3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): GERM 1010 or equivalent.

GERM 2040 - Intermediate German
(GERM 2311)

3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): GERM 1020 or equivalent.

GERM 2050 - Intermediate German
(GERM 2312)

3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): GERM 2040 or equivalent.

GERM 2900-Special Problems

1-3 hours

Prerequisite(s): None.

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.

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.

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.
Core Category: Language, Philosophy and Culture

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.
Core Category: Language, Philosophy and Culture

GERM 3060 - Advanced German Composition and Oral Practice

3 hours

Composition, oral reports and discussions of German civilization topics.
Prerequisite(s): GERM 2050 or equivalent.

## GERM 3070 - Advanced German Composition and Oral Practice

3 hours
Composition, oral reports and discussions of German civilization topics.

Prerequisite(s): GERM 2050 or equivalent.

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 only be taken once for Honors College credit.

## GERM 4080 - Business German

3 hours

Listening, speaking, reading, writing and cultural understanding of how business transactions are conducted in the German speaking business environment.

Prerequisite(s): GERM 2050 or equivalent.

No prior knowledge of business is necessary.

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.

Same as FREN 4150 and SPAN 4150.

Designed for students in a teacher preparation program. May not be counted toward a minor in German.

## 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): 3 hours of advanced German, or GERM 2050 or equivalent and consent of department.
May be repeated for credit as topics vary.

## GERM 4320 - Topics in German Cinema

3 hours

Topics include study of a period, movement, theme, genre or director.

Prerequisite(s): 3 hours of advanced German, or GERM 2050 or equivalent and consent of department.
May be repeated for credit as topics vary.

GERM 4330 - Topics in Advanced German Language

3 hours

Topics include German grammar, syntax, language history, dialects and linguistics.

Prerequisite(s): GERM 2050 or equivalent.
May be repeated for credit as topics vary.

## 3 hours

Topics include study of a period, movement, theme, genre or author.
Prerequisite(s): 3 hours of advanced German, or GERM 2050 or equivalent and consent of department.

May be repeated for credit as topics vary.

GERM 4900-Special Problems
$1-3$ hours

Prerequisite(s): None.

GERM 4910-Special Problems

1-3 hours

Prerequisite(s): None.

## 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): 3 advanced credit hours in German and declared major; student must meet the employer's requirements and have consent of the department.

May be repeated for credit as topics vary.

## 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.

## 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.

Prerequisite(s): None.

## HLTH 1570 - Environmental Health and Safety

3 hours

Introduces students to environmental health issues, including specific health problems associated with environmental health.
Prerequisite(s): None.

## HLTH 1900 - Principles of Health

(PHED 1304)

3 hours

Introduces principles of health promotion and effective strategies used with individuals and communities. In addition, provides an overview of behavior modification, communications, epidemiology, mental health, program planning, and program evaluation as it relates to the promotion of one's health. Students are introduced to the skills and knowledge required to become a successful professional in health promotion.

Prerequisite(s): None.

HLTH 2000 - Introduction to Public Health

3 hours

Introduces principles and analytical tools utilized in improving the nation's health at-large, including social, environmental and medical care issues.

Prerequisite(s): None.
Core Category: Component Area Option

## HLTH 2100 - Mental Health

3 hours

Introduces principles and strategies used to promote positive mental health to individuals and communities. Students develop an understanding of the importance of positive mental health to overall well-being.

Prerequisite(s): None.

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.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

## HLTH 2400 - Introduction to Global Health

3 hours

Develop problem-solving skills utilized in improving the health of nations globally, including social, economic, medical and environmental considerations that affect the health of global populations.

Prerequisite(s): None.

## HLTH 2900-Special Problems

1-3 hours

Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

## HLTH 2910 - Special Problems

1-3 hours

Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

## HLTH 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.

## HLTH 3100 - Epidemiology of Communicable and Non-Communicable Disease

## 3 hours

Study of the nature, prevention, control and treatment of human disease; principles related to the causes of disease and the role of the health professional in practical application. Content emphasizes factors that contribute to population-based health disparities and the epidemiological practices associated with infectious disease investigation, prevention, treatment, and control as they relate to the role of health professionals.

Prerequisite(s): None.

HLTH 3110 - Health Promotion: Development and Application of Presentation Skills

3 hours

Introduction to communication theories, methods of behavior change (behavior and social science theories), marketing/social marketing models,
mass communication theories and persuasive presentation concepts. Case studies, resources, research tools and examples of different media channels are reviewed and analyzed to explore how to reach different target audiences with the most effective health communication strategy required.

Prerequisite(s): None.

## HLTH 3120 - Drugs and Human Health

3 hours

Discusses the pharmacological implications of drug use in human health. The nature of drug actions, motivational factors that influence the use of drugs, and societal responses to drug use and treatment are explored. Suitable for teachers and counselors.

Prerequisite(s): None.

## HLTH 3130 - Health Promotion Skills and Competencies

## 3 hours

Explores foundational content and skills development related to roles and responsibilities of the health educator. Content is relevant to the Certified Health Education Specialist (CHES) exam.

Prerequisite(s): None.

## 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.

Prerequisite(s): None.

## HLTH 4251 - Consumer Health Advocacy

3 hours

Examines an analysis and appraisal of issues related to the production and distribution of products and services as they affect consumer health. The role of the health educator as a consumer advocate is explored.

Prerequisite(s): None.

## HLTH 4300 - Health Promotion in the Corporate Setting

3 hours

Presents the importance of promoting health in a corporate setting. Students are introduced to planning and implementing a comprehensive health promotion program in a corporate setting.

Prerequisite(s): None.

HLTH 4350 - Environmental Community Health

3 hours

Examines the nature and complexity of environmental health issues including specific health problems associated with environmental health.

Prerequisite(s): None.

## HLTH 4430 - Planning, Administration and Evaluation of Health Programs

3 hours

Exploration of needs assessment and program planning, and the implementation and evaluation of health programs in various settings.

Prerequisite(s): HLTH 3130 or consent of instructor.

## HLTH 4500 - Leadership and Professional Proficiency in Health Promotion

3 hours

Prepares students for the transformation into health promotion professionals. Explores leadership and management theories and their application to diverse professional settings.

Prerequisite(s): None.

## HLTH 4600 - Behavioral Change Strategies in Health Promotion

3 hours

Integrates social, behavioral, and psychological content and theory for the purpose of effecting positive behavior change in individuals. Focuses on the development of interpersonal skills in dealing with health behaviors throughout the lifespan.

Prerequisite(s): None.

## HLTH 4810 - Studies in Health Promotion

$1-3$ hours

Organized classes for program needs.

Prerequisite(s): Consent of the health promotion program.

Limited-offering basis. May be repeated for credit.

## HLTH 4850 - Internship in Community Health Promotion

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6 hours (1;internship)
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Performance of a limited work or service project in a public health setting for a minimum of 320 supervised hours; identification and fulfillment of planned learning objectives; self-monitoring and regular seminars on learning accomplishment.

Prerequisite(s): HLTH 3110. Students must meet with internship coordinator at least one term/semester prior to registration for this course.

## HLTH 4900 - Special Problems

1-3 hours

Prerequisite(s): None.

## HLTH 4910 - Special Problems

Prerequisite(s): None.

## HLTH 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.

## 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.

Prerequisite(s): None.

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History
HIST 1050 - World History to the Sixteenth Century
(HIST 2321)
3 hours
From the origins of civilization to the 16th century.
Prerequisite(s): None.
Core Category: Language, Philosophy and Culture
HIST 1060 - World History from the Sixteenth Century
(HIST 2322)
3 hours
World civilization from 1500 to the present.
Prerequisite(s): None.
Core Category: Language, Philosophy and Culture
HIST 1075 - Honors World History to the Sixteenth Century
3 hours
From the origins of civilization to the 16th century.
Prerequisite(s): Acceptance into the Honors College.
HIST 1085 - Honors World History from the Sixteenth Century
3 hours
World civilization from 1500 to the present.
Prerequisite(s): Acceptance into the Honors College.
HIST 2610 - United States History to 1865
(HIST 1301)
3 hours
From colonial origins through the Civil War.
Prerequisite(s): None.
Core Category: American History


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.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

HIST 3650 - Representative American Leaders, Colonial Period to 1865

3 hours

Examination and evaluation of major figures in the settlement and growth of the United States.
Prerequisite(s): None.

HIST 3660-Representative American Leaders Since 1865

3 hours

Examination and evaluation of major figures during the Gilded Age and the 20th century.
Prerequisite(s): None.

HIST 3710 - Diplomatic History of the United States to 1900

3 hours
Diplomatic problems and general international relations.

Prerequisite(s): None.

HIST 3720 - Diplomatic History of the United States from 1900 to 1945

3 hours

Diplomatic problems and general international relations.
Prerequisite(s): None.

HIST 3750 - Greek Civilization

3 hours

From the Minoans to 146 BCE.

Prerequisite(s): None.

\section*{HIST 3760-Roman Civilization}

3 hours

From the foundation of Rome to the fall of the Roman Empire.

Prerequisite(s): None.

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.

Previous experience in courses such as ART 2350/ART 2360 or HIST 1050/HIST 1060/HIST 3760 strongly recommended. No knowledge of Italian or Latin is expected.

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.

\section*{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 only be taken once for Honors College credit.

HIST 4010 - History of Science and Technology to Newton

3 hours

Science and technology from ancient times to the Scientific Revolution emphasizing the presuppositions of scientific inquiry, the relationship between science and technology, and their impact on society.

Prerequisite(s): None.

3 hours

Science and technology from Newton to the present emphasizing the presuppositions of scientific inquiry, the relationship between science and technology, and their impact on society.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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 21 st 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.

Prerequisite(s): None.

\section*{HIST 4061 - Russian Cultural History of the 20th Century}

3 hours

Cultural history of 20th-century Russia examining achievements in art, film, literature and music in historical context of cultural politics, state regulation of the cultural field, repression of artists, and underground versus official culture.

Prerequisite(s): A previous course in Russian history or Russian literature is recommended.

HIST 4070 - World War II

3 hours

Europe, 1939-1945; military operations and occupations, the Holocaust, politics, diplomacy, technology, the Pacific Theater and the atomic bomb.

Prerequisite(s): None.

3 hours

Analyzes the American military policy that emerged after WWII in context of the American military experience from 1945 to 1975. Investigates how the Korean War and Vietnam War represent a break from the traditional American practice of war.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

HIST 4090 - Britain and Ireland in the Age of Revolution, 1603-1832

3 hours

The British Isles from the accession of James I to the eve of the first Reform Act. Change and continuity amid the rise and fall of royal dynasties, civil war, scientific and commercial revolutions, revolt in the colonies and the politicization of groups traditionally excluded from government: religious dissenters, Irish Catholics, artisans and women.

Prerequisite(s): None.

HIST 4100 - Modern Britain Since 1830

3 hours

British political, social, economic, cultural and sexual history to the present.

Prerequisite(s): None.

HIST 4105 - Britain Since 1945

3 hours

Political, economic and cultural trends in British history since the end of the Second World War.
Prerequisite(s): None.

\section*{HIST 4110 - British Empire and Commonwealth}

3 hours

British global expansion from the 17th century; warfare, trade, and cultural exchanges; responses of colonized peoples; decline of empire in the 20th century; creation of the British Commonwealth of Nations.

Prerequisite(s): None.

HIST 4115 - Canadian History

3 hours
Political, social, economic and cultural history of Canada, from the early European voyages of exploration (1500) to the present.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{HIST 4150 - Mexican Immigration and the Chicano Community}

3 hours

Introduction to the history of Mexican immigration in the United States, focusing on the dynamic effects immigration has had throughout the 19th and 20th centuries on the formation of the Chicano community. Utilizes lectures, discussion of the readings, films, and speakers to emphasize a variety of themes including labor, politics, nativism, citizenship, demography, gender and culture.

Prerequisite(s): HIST 3150 recommended.

\section*{HIST 4155 - Mexican American Autobiography}

3 hours

Surveys Mexican American autobiographies since the 19th century but emphasizes contemporary works. Themes touching on the economic, political, social, cultural and gender spheres of life are examined. The literature covered is considered within the context of the broader history of Mexican Americans in the 20th century and continuing to the present period.

Prerequisite(s): None.

\section*{HIST 4160-Chicano Political History: 19th and 20th Century}

3 hours

Surveys the history of Chicano politics in the U.S. since 1821. Briefly examines antecedents in the colonial era. Comparing the Chicano political experience before and after American sovereignty, the course assesses the continuity of the Chicano political tradition. Emphasizes reading and discussing new literature in the field.

Prerequisite(s): HIST 3150 is recommended.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{HIST 4175 - History of Brazil: 1500-Present}

3 hours

Survey of Brazilian history from the arrival of the Portuguese to the present. Examines the contact phase, European settlement, the sugar economy, independence from Portugal, slavery, the coffee and rubber booms, the Estado Novo, indigenous communities, military governments and the current state of Brazilian affairs.

Prerequisite(s): None.

HIST 4180 - Colonial Mexico and the Spanish Southwest

3 hours
Conquest and expansion of the Spanish in North America.

Prerequisite(s): None.

HIST 4190 - Mexico, 1810-Present

3 hours

Social, economic and political history since independence.
Prerequisite(s): None.

\section*{HIST 4200 - The Spanish Frontier in North America}

3 hours

History of the Spanish colonial settlements located within the present boundaries of the United States from 1513 to 1821. Particular attention is paid to the Spaniards' relations with the Native Americans of Florida, New Mexico, Texas and California.

Prerequisite(s): None.

HIST 4210 - Southern Plains Indian History

3 hours

Examines the social and political history of the Native American tribes from the pre-Columbian era to the present. Particular attention is paid to
the Caddos, Comanches and Wichitas and their relations with Euroamericans.

Prerequisite(s): None.

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 antiSemitism. 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.

Prerequisite(s): None.

HIST 4216 - Rome's Jewish Wars and the Roman Near East

3 hours

The expansion of Rome's sphere of influence to the east brought it into open competition with the Parthian Empire, which spanned from Arabia and the Caspian Sea to India. Judaea- an independent Jewish kingdom from 160 to 62 BC- soon came under Roman control, as a client kingdom, eventually becoming a Roman province ( 6 AD ). Examination of the sources of Roman power in the East, as well as the military clashes that shaped Rome's administrative expansion into the Near East, focusing primarily on Judaea and the two Jewish Revolts ( 66 AD and 132 AD). Examination of the consequences of Rome's Jewish Wars for the Roman eastern front with the Parthians, and for Jews and Christians in Judaea/Palestina and throughout Empire.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

HIST 4219 - Late Medieval Europe, 1095 to 1400

3 hours
Crusades, investiture controversy, papal monarchy, late medieval piety and political theory.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{HIST 4245 - Gender, Race and Class Issues in Middle Eastern History}

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.
May be repeated for credit as topics vary.

3 hours

Specific historical topics in U.S. history.
Prerequisite(s): None.
May be repeated for credit as topics vary. Satisfies Group A requirements.

\section*{HIST 4262 - Topics in European History}

3 hours

Specific historical topics in European history.
Prerequisite(s): None.
May be repeated for credit as topics vary. Satisfies Group B requirements.

HIST 4263 - Topics in African-, Asian- or Latin American History

3 hours

Specific historical topics in African-, Asian- or Latin American history.
Prerequisite(s): None.
May be repeated for credit as topics vary. Satisfies Group C requirements.

HIST 4280 - French Frontier in North America

3 hours

Examines the colonies France established in Canada, the Caribbean and Louisiana in the 17th and 18th centuries and pays close attention to the Native Americans, Europeans and Africans who inhabited each colony.

Prerequisite(s): None.

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.

\section*{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.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): HIST 4330 suggested.

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.

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.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

HIST 4330 - Absolutism and Enlightenment in Europe, 1648-1789

3 hours

Politics, economics, culture and society.
Prerequisite(s): None.

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.

Prerequisite(s): None.

HIST 4340 - Europe in the Nineteenth Century, 1815-1914

3 hours

Politics, intellectual movements and diplomacy with special attention to nationalism.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

HIST 4364 - Early Modern Germany, 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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.
Prerequisite(s): None.

HIST 4380 - The European Witch Hunts

3 hours

The origins, intensity and decline of the witch hunts that engulfed Europe from the late 16th to the early 18th century.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

3 hours

Puritanism to the birth of the modern United States.
Prerequisite(s): None.

HIST 4410 - Intellectual, Social and Cultural History of the United States Since 1865

3 hours
Reconstruction, Progressivism, evolution of the Welfare State, and civil rights.

Prerequisite(s): None.

HIST 4420 - United States Constitutional Development, 1783-Present

3 hours

The Articles of Confederation, the Constitution, role of the Supreme Court and changing nature of constitutional doctrines.
Prerequisite(s): None.

HIST 4430 - United States Political Parties, 1783-Present

3 hours

Growth and development of the two-party system; the parties' role in the political development of governmental institutions.
Prerequisite(s): None.

HIST 4435 - American Jewish Experience

3 hours

Examines the Jewish experience in America from the colonial period to the present. Topics include immigration, shaping American Jewish identities, American Judaism, anti-Semitism, American Jews and the Holocaust, Zionism, and Israel.

Prerequisite(s): None.

HIST 4440 - 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.
Prerequisite(s): None.

HIST 4450 - 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.

Prerequisite(s): None.

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.

HIST 4455 - History of Black Women in America

3 hours

Historical exploration into the characteristics, cultures and reflective thoughts of black women in America.

Prerequisite(s): None.

Same as WGST 4460.

HIST 4460-History of Sexualities

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.

Prerequisite(s): 1000- or 2000-level HIST course recommended but not required.

\section*{HIST 4461 - Gender, Race, Class and Policy since World War II}

3 hours

Topical survey of United States history since 1941. Focuses on the interplay among identities, ideologies and policies. Identities focus foremost on gender, race and class while themes include (1) the roles of media, economics, public figures, and activists; (2) the relationships among government, business, and the general public; (3) the federal government's expansion; and (4) U.S. interaction with the rest of the world.

Prerequisite(s): U.S. history course that covers post-1945 recommended.

HIST 4465 - Women in the United States to 1900

3 hours

Women's daily lives, work, public and political activism; differences and divisions among women.

Prerequisite(s): None.

HIST 4470 - Women in the United States Since 1900

3 hours

Women's daily lives, work and modern feminism; differences and divisions among women.

Prerequisite(s): None.

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.

Prerequisite(s): None.

HIST 4480-Colonial America

3 hours

The English Colonies in North America to 1763.
Prerequisite(s): None.

HIST 4490 - The American Revolution, 1763-1789

3 hours

The founding of the United States.

Prerequisite(s): None.

HIST 4495 - 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.

Prerequisite(s): None.

HIST 4550 - 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.

Prerequisite(s): None.

HIST 4560 - 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.

Prerequisite(s): None.

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.
Prerequisite(s): None.

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."

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

HIST 4590 - Modern Africa

3 hours

African continent since 1800 emphasizing European colonization and colonial rule, African resistance; the rise of nationalism and liberation movements.

Prerequisite(s): None.

\section*{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.

\section*{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.

HIST 4630 - U.S. Navy, 1775-Present: Sails

3 hours

History of the U.S. Navy from its origin in the Colonial period to the present.

Prerequisite(s): None.

HIST 4640 - Early United States Military History to 1815

3 hours

The genesis and development of the U.S. military tradition and system from colonial times through 1815.

\section*{Prerequisite(s): None.}

\section*{HIST 4650 - Evolution of Warfare to Napoleon}

3 hours

Art and science of warfare from ancient Greek society to the end of the French Revolution.

Prerequisite(s): None.

HIST 4660 - Evolution of Warfare from Napoleon

3 hours

Art of warfare from the French Revolution to the Cold War.

Prerequisite(s): None.

HIST 4700 - Texas

3 hours

Development of Texas from its frontier beginnings to an urban state.

Prerequisite(s): None.

Core Category: American History

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): ECON 1110-ECON 1110; PSCI 1040-PSCI 1050; HIST 2610-HIST 2620 ; GEOG 2170, GEOG 1200 or equivalents.

Same as UCRS 4700.

HIST 4780 - Indian Policy in United States History

3 hours

Indian policy from the colonial period to the present.

Prerequisite(s): None.

HIST 4790 - Diplomatic History of the United States Since 1945

3 hours

Diplomatic problems since 1945.

Prerequisite(s): None.

3 hours

Latin American policies of the United States; diplomatic, economic and cultural relations.
Prerequisite(s): None.

HIST 4830 - The Old South

3 hours
From the colonial era to the Civil War; society, culture, economics and politics.

Prerequisite(s): None.

HIST 4840 - The New South

3 hours

History of the South since 1877.
Prerequisite(s): None.

HIST 4850 - The Early National Period of the United States, 1789-1848

3 hours

Securing the republic, the rise of democracy, and territorial expansion.
Prerequisite(s): None.

HIST 4860 - The Civil War and Reconstruction

3 hours

The slavery issue, secession, the appeal to arms, and Reconstruction.

Prerequisite(s): None.

HIST 4870 - Making of the Modern United States, 1877-1929

3 hours

The era of industrialization, reform, war and reaction.
Prerequisite(s): None.

HIST 4880 - United States Since 1929

3 hours

The Great Depression, the New Deal, World War II, the Cold War, civil rights and beyond.
Prerequisite(s): None.

HIST 4890-Civil Rights in the United States

\section*{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.

Prerequisite(s): None.

\section*{HIST 4895 - American Economic History}

\section*{3 hours}

Historical, macroeconomic overview and analysis of the American economy from colonial times to the present, with discussions of government regulation, the welfare state, the banking system, business enterprise and technology. Analyzes the effects of slavery, the two world wars, the Great Depression, inflation and the Great Recession on the American economy.

Prerequisite(s): None.

HIST 4900-Special Problems

1-3 hours

Prerequisite(s): Consent of department.

\section*{HIST 4910 - Special Problems}

1-3 hours

Prerequisite(s): Consent of department.

\section*{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.

\section*{Home Furnishings}

\section*{HFMD 2380 - Aesthetics and Environment}

3 hours (2;2)

Introduction to computer-aided design, drafting, dimensioning and aesthetics in the home environment.
Prerequisite(s): None.

HFMD 2400 - Introduction to the Furniture Industry

3 hours

Overview of the furniture and home furnishings industry. Topics include product development, manufacturing, distribution and merchandising of these products. Introduction to industry terminology, resources and career opportunities.

Prerequisite(s): None.

HFMD 2655 - Textiles for Home Furnishings

3 hours

Fibers, fabric, construction and finishes applied to selection, use and care of home furnishings fabrics.

Prerequisite(s): None.

HFMD 3355 - Historic and Contemporary Styles of Home Furnishings

3 hours

Survey of furnishings in the built environment from the 16th century to the present. Emphasis on technological, cultural and social influences on historic and contemporary styles.

Prerequisite(s): None.

HFMD 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): HFMD 2400.

HFMD 3405 - Drawing and Planning for Home Furnishings

3 hours (2;2)

Development of basic drawing and drafting skills. Emphasis on incorporating hand drafting techniques specific to the planning of cabinetry/fixture placement and home furnishings arrangements.

Prerequisite(s): HFMD 2380, HFMD 2400 (HFMD 2400 may be taken concurrently); major in home furnishings merchandising, or consent of instructor.

HFMD 3410-CAD for Home Furnishings

3 hours (2;2)

Concentration on CAD applications in the planning of home environments, including kitchen and other work zone areas. Focus on planning criteria for these spaces addressing function, aesthetics and economics.

Prerequisite(s): HFMD 2380, HFMD 2400 and HFMD 3405, or consent of instructor.

HFMD 3570 - Decorative Accessories Merchandising

3 hours

Overview of decorative accessories in historical contexts and in current industry applications. Examination of production and merchandising of products including giftware, lighting, home accents, rugs, accent furniture, softgoods and tabletop.

Prerequisite(s): None.

HFMD 4400 - Estimating for Home Furnishings

3 hours (2;2)

Practical aspects of home furnishings and interior treatments; professional practices in home furnishings merchandising.

Prerequisite(s): HFMD 2380, HFMD 2400, HFMD 3405 and HFMD 3410 (HFMD 3410 may be taken concurrently); or consent of instructor.

\section*{HFMD 4660 - Advanced Merchandising Applications}

3 hours

Capstone course requiring students to apply merchandising 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): HFMD 2400; HFMD 3380; MDSE 2750; MDSE 3510; plus 9 additional hours in major with a grade of C or better; major in home furnishings merchandising.

\section*{HFMD 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

HFMD 4910 - Special Problems
\(1-3\) hours

Prerequisite(s): None.

\section*{HFMD 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.

\section*{Honors Courses}

\section*{HNRS 1000 - Honors College Seminar: Intellectual Heritage}

1 hour

Explores the intellectual heritage and foundation on which students build as they progress academically. Includes lectures from a variety of disciplinary perspectives; students have opportunities to discuss important intellectual concepts.

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; freshman or sophomore standing or consent of the Honors College dean.
Core Category: Component Area Option

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; freshman or sophomore class standing or consent of the Honors College dean.
Core Category: Component Area Option

HNRS 2900-Special Problems
\(1-3\) hours

Prerequisite(s): None.

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 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): Admission to Honors College.

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 only once 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.

\section*{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.

\section*{HNRS 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{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.

\section*{Hospitality Management}

\section*{HMGT 1420 - Food Sanitation}

\begin{abstract}
1 hour

Prerequisite(s): None.

HMGT 1450 - Principles of Nutrition
\end{abstract}

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.
(HECO 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.

Prerequisite(s): None.

Core Category: Component Area Option

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. Applies toward hospitality pre-major requirements.

Prerequisite(s): HMGT 1420 (may be taken concurrently).
Uniforms required.

HMGT 1500 - Orientation to the Hospitality Industry

2 hours

Course designed to survey the hotel, restaurant, club and food service industries, including history, scope, organization and career opportunities. Applies toward hospitality pre-major requirements.

Prerequisite(s): None.

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. Applies toward hospitality pre-major requirements.

Prerequisite(s): None.

HMGT 2460 - Introduction to Nutrition Science

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.

Prerequisite(s): None.

Core Category: Life and Physical Sciences

\section*{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.

Prerequisite(s): HMGT 2280.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

HMGT 2860 - Management Foundations in the Hospitality Industry

3 hours

Introduction to motivation, leadership, communications, decision making, managing employees, ethics, social responsibility, and managing consumer experiences in the hospitality industry by examining service-driven management foundations. Applies toward hospitality pre-major requirements.

Prerequisite(s): None.

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/minor status; junior standing.

\section*{HMGT 3240 - Special Event Management}

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.

Prerequisite(s): None.

\section*{HMGT 3250-Restaurant Operations I}

3 hours (2;5)
Laboratory-based course designed to familiarize students with dining room service systems encompassing American, French, Russian, banquet and beverage service. Students apply organizational and management skills in the actual operation of a restaurant facility, the Club at Gateway Center. Uniforms required.

Prerequisite(s): Hospitality major/minor status; HMGT 1420, HMGT 2860. Students must hold a current ServSafe Food Protection Manager Certification, or an alternative certification which is accepted by the department.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): Hospitality major/minor status; junior standing.

\section*{HMGT 3600 - Management of Human Resources in the Hospitality Industry}

\section*{3 hours}

Effective management of human resources in the hospitality industry. Application of human resource management techniques to hotels, restaurants and other hospitality workplaces in planning, recruitment, selection, training, performance management, coaching, counseling and discipline, delegation and decision-making.

Prerequisite(s): Hospitality major/minor status; junior standing.

\section*{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.

Prerequisite(s): Hospitality major/minor status; HMGT 1500.

\section*{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.

Prerequisite(s): Junior standing or consent of instructor.

\section*{HMGT 4210-Hospitality Accounting III - 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): Hospitality major/minor status; HMGT 2280; HMGT 2480.

\section*{HMGT 4250-Restaurant Operations II}

3 hours (2;6)
Laboratory-based course designed to provide students with an understanding of food production principles and techniques. Students apply organizational and management skills in the actual operation of a restaurant facility, the Club at Gateway Center. Uniforms required.

Prerequisite(s): Hospitality major/minor status; HMGT 1420, HMGT 1470, HMGT 2280, HMGT 2480, HMGT 2860, HMGT 3250, HMGT 4210. Junior standing. Students must hold a current ServSafe Food Protection Manager Certification, or an alternative certification which is accepted by the department.

\section*{HMGT 4300 - Survey of Beverages in the Hospitality Industry}

\section*{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.

\section*{HMGT 4480-Hospitality Industry Finance}

\section*{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): Hospitality major/minor status; HMGT 2280 and HMGT 2480 and junior standing.

HMGT 4600 - Information Technology in Hospitality and Tourism

3 hours
Study of the strategic use of information technology (IT) in today's hospitality and tourism organizations. Topics include the unique needs for and characteristics of IT in the hospitality/tourism industry and the most widely used information systems in operations, management, and e-business in hospitality and tourism, as well as their impacts on organizations and the industry as a whole.

Prerequisite(s): Hospitality major/minor status; junior standing or consent of instructor.

\section*{HMGT 4730 - Hospitality Management Systems}

3 hours (2;1)

In-depth analysis of the systems approach to marketing management in the hospitality industry. Students utilize computer simulations to gain an understanding of hotel operations and menu engineering principles. An overall understanding of quality management is emphasized.

Prerequisite(s): HMGT 2280, HMGT 2480, HMGT 3700, HMGT 4210. Junior standing.

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): Hospitality major/minor status; HMGT 1420, HMGT 1470, HMGT 2280, HMGT 2480, HMGT 2860, HMGT 3250, HMGT 4210. HMGT 4250 (may be taken concurrently).

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): Hospitality major/minor status; HMGT 1420, HMGT 1450, HMGT 1470, HMGT 1500, HMGT 2280, HMGT 2480, CMHT 2790, HMGT 2800, HMGT 2860, HMGT 3200, HMGT 3250, HMGT 3260, HMGT 3300, HMGT 3600, HMGT 3700, HMGT 4210 and CMHT 3950. HMGT 4250, HMGT 4480, HMGT 4600, HMGT 4820, and CMHT 4750 (may be taken concurrently).

\section*{HMGT 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{HMGT 4910-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{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.

\section*{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.

Prerequisite(s): None.

Suitable for non-majors; DFST majors should take in their first term/semester.

Core Category: Social and Behavioral Sciences

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 studies.

Prerequisite(s): None.

DFST majors should take in their first term/semester.

\section*{HDFS 2033 - Parenting in Diverse Families}
(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.

Prerequisite(s): None.

Core Category: Component Area Option

HDFS 2042 - Professional Development in Human Development and Family Science

2 hours

Introduction to the field of human development and family studies. Research and strategic planning for careers, professional activities, development of professional competencies, and ethical decision making.

Prerequisite(s): None.

DFST majors should take in their first year.

HDFS 2313 - Courtship and Marriage

3 hours

Study of dating, courtship and marriage relationships.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

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.

Prerequisite(s): None.

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.

\section*{HDFS 3113 - Infant and Toddler Development}

3 hours

Growth and development of the child from conception to three years, including the influence of the family and environment.

Prerequisite(s): None.

\section*{HDFS 3123 - Child Development}

3 hours

Basic principles of development and learning; physical, cognitive, language, social and emotional development in early and middle childhood (ages 3 to 10 years).

Prerequisite(s): None.

May require some observation and case study.

\section*{HDFS 3124 - Child Development}

\section*{3 hours}

Basic principles of development and learning; physical, cognitive, language, social and emotional development in early and middle childhood (ages 3 to 11 years). Intended for majors within the Human Development and Family Science program.

Prerequisite(s): Consent of department.

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.

Prerequisite(s): None.

\section*{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.

\section*{HDFS 3313 - Interpersonal Relationships}

3 hours

Study of interpersonal relationships across the life span in a variety of contexts.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): Junior or senior standing.

Core Category: Component Area Option

HDFS 4011 - Pre-Internship

\section*{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 studies.

Prerequisite(s): HDFS 1023 and HDFS 2042.

A grade of C or better in this course is a requirement for registration in HDFS 4023.

\section*{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 studies, 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. Student must have a minimum 2.45 overall grade point average, completion of 90 hours or more. The internship site must be approved the previous term/semester by the Pre-Internship instructor.

May be repeated for credit up to a maximum of 6 hours.

HDFS 4133-Adolescent Development

3 hours

Theories and characteristics of physical, cognitive and social development between 11 and 20 years of age. Effects of family, school, community and other factors on adolescent development are also addressed.

Prerequisite(s): Junior or senior standing.

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

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.

Prerequisite(s): HDFS 3123.

\section*{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.

Prerequisite(s): Junior or senior standing.

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.

HDFS 4353 - Advanced Family Science

3 hours

Exploration of current research and theory as it applies to family systems in social contexts.

Prerequisite(s): Junior or senior standing.

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; junior or senior standing.

\section*{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.

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.

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.

\section*{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.

Prerequisite(s): None.

\section*{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.

\section*{Human Service Management and Leadership}

\section*{HSML 3000 - Human Service in the Nonprofit Sector}

3 hours

Foundational course for students interested in a career in one of the human service professions. Examination of the philosophy, values, roles and responsibilities of human services and human service workers in today's society. Examination of personal needs, interests and potential strengths as a professional human service worker.

Prerequisite(s): None.

Same as PACS 3000.

HSML 4000 - Introduction to Financial Management for Nonprofit Organizations

3 hours

Designed to introduce students to many of the fiscal disciplines of nonprofit organizations. Students learn basic skills in accounting principles, analyzing financial information, reporting requirements, cash management and capital budgeting.

Prerequisite(s): None.

HSML 4620 - Topics in Human Services

3 hours

Study of various topics in human services and issues of concern for non-profit managers.
Prerequisite(s): Consent of department.

May be repeated for credit as topics vary.

HSML 4700 - Program Planning and Evaluation

3 hours

Provides students with basic skills in conceptualizing, designing and planning human service-related programs for and within nonprofit agencies. Program evaluation with emphasis of performance outcomes and utilizing assessment results to strengthen program operation is emphasized.

Prerequisite(s): None.
Same as PACS 4260.

HSML 4750 - Capstone Course

3 hours

Designed to crystallize the competencies covered in the HSML degree program and 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. Satisfies one of the course requirements for students pursuing American Humanics certification.

Prerequisite(s): Consent of human service coordinator.

\section*{3 hours (0;0;13)}

Supervised work in a community agency directly related to the student's career and specialization interests. Designed to integrate theory and practice in human services and prepare students for practical application of skills, knowledge and philosophy in a supervised setting. Students must meet individual employer's requirements and obtain consent of human service program director.

Prerequisite(s): Consent of internship coordinator.

Same as PACS 4310.

HSML 4900 - Special Problems

\section*{1-3 hours}

Prerequisite(s): HSML major status; consent of instructor.

May be repeated for credit.

\section*{Information Science}

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): 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.

\section*{INFO 4095-Cooperative Education}

3 hours

Supervised work in a job related to student's career objective.
Prerequisite(s): Consent of the practicum director and the cooperative education advisor.

Pass/no pass only. Cannot be used for degree credit.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{INFO 4210 - Information Organization and Records Control}

3 hours

Descriptive cataloging, subject analysis, classification and control of information resources of all kinds; Anglo-American Cataloguing Rules; Dewey Decimal and Library of Congress classification systems; subject headings; organization, functions and use of catalogs and classification systems; principles of information indexing and retrieval; use of bibliographic databases; representative problems and practice.

Prerequisite(s): None.

INFO 4223 - Introduction to Metadata for Information Organization

3 hours

Introduction to representation and organization of different kinds of information resources using various forms of metadata. Introduction to examination and use of key metadata schemes, data and content standards, and tools for representing and organizing information resources in the digital environment.

Prerequisite(s): INFO 4203 or consent of department.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{INFO 4325 - Advanced Topics in Rural Libraries}

\section*{3 hours}

Covers topics on concepts, theories and techniques on rural librarianship; resources available to support and assist staff and managers working in small and rural libraries, as well as real-world problems and advanced topics of rural public libraries.

Prerequisite(s): None.

INFO 4350 - Library Partnership and Community Outreach

3 hours

Covers basic skills to build collaboration among libraries and community units they serve. Designed for students interested in outreach, marketing and community-centered library practice.

Prerequisite(s): None.

\section*{INFO 4365 - Health Sciences Information Management}

\section*{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.

Prerequisite(s): None.

\section*{INFO 4400 - Evaluation and Development of Information Resources}

\section*{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.

Prerequisite(s): None.

\section*{INFO 4420 - Information Resources for Children}

\section*{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.

Prerequisite(s): None.

INFO 4430 - Information Resources for Young Adults

\section*{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.

Prerequisite(s): None.

\section*{INFO 4615 - Electronic Information Services}

\section*{3 hours}

Basic concepts of electronic information services and databases in different fields; conducting online searches and evaluating services. Supervised practical experience.

Prerequisite(s): None.

\section*{INFO 4620 - Information Resources in the Humanities}

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{INFO 4637 - Medical Informatics}

\section*{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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

INFO 4670 - Data Analysis and Knowledge Discovery

\section*{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.

Prerequisite(s): None.

\section*{INFO 4685 - Information Resources in Culturally Diverse Communities}

3 hours

Information resources, methods and services to meet access needs of ethnic cultural minorities. Issues in the provision of information services to ethnic cultural minority communities. Study of the needs and cultural milieu of these communities. Materials and methods for serving these groups.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{INFO 4730 - Digital Curation and Preservation}

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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 credit as topics vary.

\section*{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.

\section*{INFO 4951 - Honors College Capstone Thesis}

\section*{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

\section*{3 hours}

Special institute course/seminar.

Prerequisite(s): Consent of the department chair or the dean of the college.

May be repeated for credit as topics vary.

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.

\section*{International Studies}

\section*{INST 2100 - Introduction to International Studies}

3 hours

Introduces students to the five areas of concentration of the major-international security and diplomacy, international business and economics, international development and humanitarian affairs, regional studies, and peace studies.

Prerequisite(s): None.
Core Category: Component Area Option

INST 2500 - Global Perspectives: Cultural Competency and Citizenship

\section*{3 hours}

Introduction to the fundamental concepts, research skills and practical skills needed to understand and engage in global citizenship and cultural competency. Examination of key global systems and issues with a focus on cross-cultural interactions, through international case studies, fact-toface interactions on the UNT campus, and student-directed research.

Prerequisite(s): None.

Core Category: Component Area Option

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): International studies major status; junior or senior classification; minimum GPA of 3.0 and 6 upper-level hours in the student's primary area of concentration at UNT; student must meet employer's requirements and have consent of department internship supervisor.

May be repeated for credit; up to 6 hours of internship may count towards the major. Pass/no pass only.

\section*{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.

Prerequisite(s): None.

May be repeated for credit as topics vary.

\section*{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.

Prerequisite(s): Senior status and international studies major with area of concentration in international security and diplomacy.

\section*{INST 4852 - Critical Issues in Global Economics Senior Seminar}

\section*{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

Prerequisite(s): Senior status and international studies major with area of concentration in international business and economics.

INST 4853-Global Development: Issues and Challenges

\section*{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

Prerequisite(s): International studies majors whose area of concentration is international development and regional studies and senior status.

INST 4900 - Special Problems

1-3 hours

Prerequisite(s): Consent of department.

\section*{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.

\section*{Italian}

\section*{ITAL 1010 - Elementary Italian}
(ITAL 1311 or ITAL 1411 or ITAL 1511)

3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): None.

ITAL 1020 - Elementary Italian
(ITAL 1312 or ITAL 1412 or ITAL 1512)

3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): ITAL 1010 or equivalent.

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.

Prerequisite(s): None.

Core Category: Component Area Option

ITAL 2040 - Intermediate Italian
(ITAL 2311)

3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): ITAL 1020 or equivalent.

ITAL 2050 - Intermediate Italian
(ITAL 2312)

3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): ITAL 2040 or equivalent.

ITAL 2900-Special Problems

1-4 hours

Prerequisite(s): None.

ITAL 2910 - Special Problems

1-4 hours

Prerequisite(s): None.

ITAL 3040 - Topics in Italian Culture

3 hours

Readings in Italian culture with emphasis on conversational and written practice.

Prerequisite(s): ITAL 2050.

May be repeated for credit as topics vary.

Core Category: Language, Philosophy and Culture

ITAL 3050 - Contemporary Italian Culture Through Film

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.

Core Category: Language, Philosophy and Culture

ITAL 3070 - Introduction to Italian Literature

3 hours

Introduction to reading and analyzing Italian literature.

Prerequisite(s): ITAL 2050 or equivalent.

Core Category: Language, Philosophy and Culture

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.

ITAL 4900-Special Problems

1-3 hours

Prerequisite(s): None.

ITAL 4910-Special Problems

\section*{1-3 hours}

Prerequisite(s): None.

\section*{Japanese}

JAPN 1010 - Elementary Japanese
(JAPN 1311 or JAPN 1411 or JAPN 1511)
3 hours (3;2)

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): None.

JAPN 1020 - Elementary Japanese
(JAPN 1312 or JAPN 1412 or JAPN 1512)
3 hours (3;2)

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): JAPN 1010 or equivalent.

JAPN 2040 - Intermediate Japanese
(JAPN 2311)
3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): JAPN 1020 or equivalent.

JAPN 2050 - Intermediate Japanese
(JAPN 2312)
3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): JAPN 2040 or equivalent.

JAPN 2900-Special Problems

1-4 hours

Prerequisite(s): None.

\section*{JAPN 2910 - Special Problems}

1-4 hours

Prerequisite(s): None.

3 hours

Advanced listening, speaking, reading, writing and grammar. Topics include Japanese society, culture, history and intercultural communications.
Prerequisite(s): JAPN 2050.
Core Category: Language, Philosophy and Culture

\section*{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.

JAPN 3040 - Advanced 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 3020 as corequisite or prerequisite.

May be repeated for credit as topics vary.

\section*{JAPN 3060 - Advanced Topics in Japanese Language}

\section*{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 3020 as corequisite or prerequisite.
May be repeated for credit as topics vary.
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 with a grade of C or better.

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): JAPN 4020 with a grade of C or better.

1-3 hours

Prerequisite(s): None.

JAPN 4910 - Special Problems

1-3 hours

Prerequisite(s): None.

\section*{Jazz Studies}

\section*{MUJS 1131-Jazz Performance Fundamentals I}

1 hour ( \(0 ; 2\) )
Study of the basics of jazz performance. Topics covered include instrumental technique, style, interpretation and improvisation.
Prerequisite(s): Audition and/or consent of college.

\section*{MUJS 1132-Jazz Performance Fundamentals II}

1 hour (0;2)

Continuation of Jazz Performance Fundamentals I.

Prerequisite(s): MUJS 1131.

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-MUTH 1410 (may be taken concurrently) (non-music majors by consent of college).

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.

Prerequisite(s): None.

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.

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.

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.

Prerequisite(s): None.

MUJS 2360-Jazz Improvisation

2 hours (2;0)

Materials and practices for improvising in the jazz idiom.

Prerequisite(s): Grades no lower than B in applied music concentration; MUJS 1132, MUJS 1370, MUJS 1371 and MUJS 1470 with grades of A or B; and entrance audition.

MUJS 2370-Jazz Improvisation

2 hours (2;0)

Continuation of MUJS 2360.

Prerequisite(s): Grades no lower than B in applied music concentration; MUJS 2360 with grade of A or B.

MUJS 2900-Special Problems

1-3 hours
Prerequisite(s): Consent of college.

\section*{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.

MUJS 3120 - Vocal Jazz Techniques

2 hours (2;0)

Practical study of the basic vocal, interpretative, and microphone techniques for the performance of vocal jazz.
Prerequisite(s): MUTH 1500, MUJS 1370, MUJS 1371, MUJS 1470.
May be repeated for credit, contingent on a minimum grade of B.

MUJS 3360-Advanced Jazz Improvisation

2 hours (2;0)

Performances of improvised solos. Includes standards and original works. Improvisation by memory and reading chord symbols.
Prerequisite(s): Grades no lower than B in applied music concentration; MUJS 2370 with grade of A or B; Jazz Studies Proficiency Examination.

2 hours (2;0)

Continuation of MUJS 3360.

Prerequisite(s): Grades no lower than B in applied music concentration; MUJS 3360 with grade of A or B.

\section*{MUJS 3470-Jazz Lecture Series}

1 hour (1;0)
Contemporary jazz composition, performances and presentations by nationally recognized composers, arrangers and performers.

Prerequisite(s): None.
Open to majors in other fields by consent of college. May be repeated for credit.

\section*{MUJS 3610-Jazz Arranging}

3 hours

Jazz harmony, melody and rhythm applied to modern instrumentation; arrangements written and played.

Prerequisite(s): MUJS 1370, MUJS 1371 and MUJS 1470 with grades of A or B, MUTH 1500 and MUTH 1510, or consent of college.

\section*{MUJS 3620-Jazz Arranging}

3 hours

Continuation of MUJS 3610.

Prerequisite(s): MUJS 3610 with grade of A or B.

\section*{MUJS 3900 - Vocal Pedagogy for Non-classical Styles}

1 hour (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 artist's approaches (successful and unsuccessful), understanding a healthy approach to achieving unification of vocal registers while maintaining speechlike lyric delivery, and other topics relevant to both singing and teaching singing in non-classical music styles.

Prerequisite(s): MUJS 1132, MUJS 1361, MUJS 1371, MUJS 3120.

\section*{MUJS 3920-Songwriting}

1 hour (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 1132, MUJS 1361, MUJS 1371, MUJS 3120.

\section*{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 (four terms/semesters), and completion of vocal concentration requirements.
Corequisite(s): Concurrent enrollment in MULB 1820, Jazz Singers, required.

May be repeated for credit, contingent on a minimum grade of B.

\section*{MUJS 4450 - Radio and Television Music}

3 hours

Composition, orchestration and production of music for advertising and broadcast.
Prerequisite(s): MUJS 3620 or consent of college.

\section*{MUJS 4470 - 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.

Prerequisite(s): MUJS 1470 with grade of C or higher.

\section*{MUJS 4610 - Advanced Jazz Arranging}

3 hours (2;4)

Analysis and composition of music for the modern jazz orchestra.

Prerequisite(s): MUJS 3620 with grade of A or B, and passing grade on Jazz Studies Proficiency Examination.

Corequisite(s): MULB 1808 or consent of department.

\section*{MUJS 4620 - Advanced Jazz Arranging}

3 hours (2;4;)
Continuation of MUJS 4610.

Prerequisite(s): MUJS 4610 with a grade of A or B.

\section*{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 3610 with minimum grade of B. Concurrent enrollment in MUEN 2624, Jazz Singers, required.

\section*{MUJS 4720-Jazz Senior Recital Capstone}

\section*{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.

\section*{MUJS 4900-Special Problems}

\section*{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.

\section*{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.

\section*{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.

\section*{Journalism}

\section*{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.

Prerequisite(s): None.

Core Category: Component Area Option or Social and Behavioral Sciences

\section*{JOUR 2000 - Principles of Advertising and Public Relations}

3 hours

Survey of advertising and public relations principles provides a broad overview of key components used in integrated marketing communication. Explores advertising and PR agencies, media corporations, not-for-profits and other institutions. Topics include history, practices, trends and case studies delivered in two eight-week modules. Taught by two instructors, the course includes two eight-week modules in advertising and public relations.

Prerequisite(s): None.

\section*{JOUR 2300 - Principles of News}

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.

Prerequisite(s): None.

\section*{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): Passing score on the grammar, spelling and punctuation exam; successful completion of two terms/semesters of first-year English; journalism major or minor status; consent of school.

\section*{JOUR 2996 - Honors College Mentored Research Experience}

\section*{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.

\section*{JOUR 3020-Advertising Account Planning}

3 hours

Explores the role of the account planner who develops innovative ways to engage consumers, writes the creative brief and inspires the copywriter/art director team as they create advertising messages. Students learn to think critically and to understand the use of both primary and secondary research to develop key insights. Students are also exposed to strategic thinking as they write the creative brief and other communication that advertising professionals use to solve business problems.

Prerequisite(s): Journalism major status: MATH 1680, passing score on the GSP (grammar, spelling and punctuation exam), JOUR 1210, JOUR 2000, JOUR 2310. Journalism minor status: JOUR 2000. Or consent of school.

\section*{JOUR 3040 - Advertising Media Strategy}

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): Journalism major status: MATH 1680, passing score on the GSP (grammar, spelling and punctuation exam), JOUR 1210, JOUR 2000, JOUR 2310. Journalism minor status: JOUR 2000. Or consent of school.

\section*{JOUR 3050 - Advertising Creative}

3 hours

Advertising strategy and execution (writing) for print, broadcast and other media.
Prerequisite(s): Journalism major or minor status; JOUR 2000, JOUR 3020 and JOUR 3210.

Corequisite(s): JOUR 3055.

\section*{JOUR 3055 - Visual Strategy}

3 hours

Introduction to tools and techniques for the visual expression of advertising. Covers visualization for advertising in a variety of media: print, outdoor, television, ambient and interactive. Hands-on-class covering how to tap into and use creative assets to make advertising that is compelling and effective.

Prerequisite(s): JOUR major or minor status; JOUR 2000, JOUR 3020 and JOUR 3210.

Corequisite(s): JOUR 3050.

\section*{JOUR 3070 - Advertising Agency 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. Topics include client relations, internal/intra-agency relations, project supervision, workflow, traffic, presentations, business development, campaign coordination and project evaluation.

Prerequisite(s): Journalism major or minor status; JOUR 2000 and JOUR 3210.

\section*{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, passing score on the GSP (grammar, spelling and punctuation exam), JOUR 1210, JOUR 2000, JOUR 2310. Journalism minor status: JOUR 2000. Or consent of school.

\section*{JOUR 3210 - Applied Design for Advertising and Public Relations}

\section*{3 hours}

Lab setting that incorporates lectures and demonstrations with hands-on experience where students learn and apply the fundamentals of core software applications used in the advertising and public relations industry. Lectures also cover an appreciation of graphic design, typography and other principles used by professionals in advertising and public relations.

Prerequisite(s): Journalism major status; passing score on the GSP (grammar, spelling and punctuation exam), MATH 1680, JOUR 1210, JOUR 2000, JOUR 2310; consent of school.

\section*{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.

Prerequisite(s): Journalism major status: MATH 1680, passing score on the GSP (grammar, spelling and punctuation exam), JOUR 1210, JOUR 2300, JOUR 2310. Journalism minor status: JOUR 2310. Or consent of school.

\section*{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 or minor status; JOUR 3321 or JOUR 3323; consent of school.

\section*{JOUR 3321 - News Reporting, Writing and Editing}

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: MATH 1680, passing score on the GSP (grammar, spelling and punctuation exam), JOUR 1210, JOUR 2300, JOUR 2310. Journalism minor status: JOUR 2310. Or consent of school.

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): Journalism major status: MATH 1680, passing score on the GSP (grammar, spelling and punctuation exam), JOUR 1210, JOUR 2300, JOUR 2310; Journalism minor status: JOUR 2310. Or consent of school.

\section*{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 or minor status; JOUR 3321 or JOUR 3323; JOUR 3300; consent of school.

\section*{JOUR 3400 - Fundamentals of Public Relations Practices}

\section*{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.

Prerequisite(s): Journalism major status: MATH 1680, passing score on the GSP (grammar, spelling and punctuation exam), JOUR 1210, JOUR 2000, JOUR 2310. Journalism minor status: JOUR 2000. Or consent of school.

\section*{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.

\section*{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 3321, JOUR 3210 and JOUR 3400; consent of school.

\section*{JOUR 3700 - Photojournalism}

3 hours (3;3)

Instruction in advanced photojournalism skills and methods including discussion of visual communication theory. Ethical and legal limits concerning photographic coverage and publication are discussed and instruction in Photoshop and digital technology is given. Assignments require covering a variety of photographic subjects and problems outside of class.

\title{
JOUR 3900-Special Problems
}

3 hours
Prerequisite(s): None.

\section*{JOUR 4012 - Direct and Interactive Response}

3 hours

Provides a study of the general principles of direct response and interactive forms of communication including the Internet and interactive, virtual and digital techniques. Students combine classroom learning with visits to businesses whose professional experts are industry leaders in this field.

Prerequisite(s): Completion of at least 45 hours of credit.

\section*{JOUR 4020 - Advertising Industry in New York}

3 hours

Introduces students to the industry in a major international advertising center - New York City. Course activities focus on three primary areas of the industry: the advertising agency business, advertisers and advertising media. Students have daily group appointments with members of the New York advertising community. A Shadow Day program allows individual students to meet on specified days with industry personnel in their area of career interest. Offered in New York during summer (3W1) only.

Prerequisite(s): Journalism major or minor status; application required; consent of school.

Application required to be admitted to the class.

\section*{JOUR 4051 - Advertising Creative 2}

3 hours

Concepting, writing and executing ads and campaigns in a variety of media. Ads are critiqued from concept to final execution.

Prerequisite(s): Journalism major or minor status; JOUR 3050; by application only; consent of school.

Application required to be admitted to the class.

\section*{JOUR 4052 - Advertising Portfolio}

3 hours

Capstone course for advertising students in the creative track. Students work in copywriter/art director teams at a local agency with professional mentors to develop their entry-level portfolios. Class meets once a week at a local agency.

Prerequisite(s): JOUR 3050, JOUR 4051. Journalism major or minor status; application required; consent of school.
Application required to be admitted to the class.

\section*{JOUR 4055 - Broadcast Advertising}

3 hours (3;3)

Writing, producing and editing radio and television scripts. Lectures cover writing, preproduction, production and examples of radio and
television commercials.

Prerequisite(s): Journalism major or minor status; JOUR 3050; consent of school.

\section*{JOUR 4070 - Advertising 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): Journalism major or minor status; JOUR 3020, JOUR 3040 or JOUR 3200, JOUR 3050, JOUR 3055 and JOUR 3070; consent of school.

\section*{JOUR 4075 - 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): Application required to be admitted to the class. Consent of school; requires application.

\section*{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): JOUR 3210, JOUR 3321. Consent of school.
Satisfies a requirement for teacher certification.

\section*{JOUR 4210 - Topics in Journalism and Mass Media}

3 hours

Rotating topics in both news and strategic communications

Prerequisite(s): Consent of school.

May be repeated for credit as topics vary.

\section*{JOUR 4240 - Comparative International Media Systems}

\section*{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): Journalism major or minor status or consent of school.

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.

\section*{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.

\section*{JOUR 4310-Creative Writing}

\section*{3 hours}

Explores the art of literary nonfiction writing through real-world experiences. Students learn to structure a story with a beginning, middle and end tied with a narrative thread. During workshops, stories are critiqued and students learn how to "go deeper" with their writing. May be linked to the Mayborn Literary Nonfiction Conference or to study abroad and other off-campus opportunities.

Prerequisite(s): JOUR 3310 and JOUR 3321 and journalism major or minor status; application required to be admitted to the class; consent of school.

\section*{JOUR 4321 - Opinion Writing}

\section*{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): JOUR 3321. Journalism major or minor status; consent of school.

\section*{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 3300; JOUR 3323; consent of school.

Corequisite(s): JOUR 4343.

\section*{JOUR 4343 - Visual News Storytelling}

\section*{3 hours}

Focuses on shooting and editing for television with information about how to select audio for radio news, plus audio and video for the Web. Extensive hands-on experience with camera and editing equipment. Students produce multiple packages, content for student media, newscasts for Denton Community Television and webcasts.

Prerequisite(s): Journalism major status; JOUR 3300; JOUR 3323; consent of school.

Corequisite(s): JOUR 4323.

\section*{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 or minor status; JOUR 3321 or JOUR 3323 and one additional upper-level news or public relations skills class; consent of school.

\section*{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 or minor status; JOUR 3321 or JOUR 3323; consent of school.

\section*{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 2000; JOUR 3020 or JOUR 3321.

\section*{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): JOUR 3420. Journalism major status; consent of school.

\section*{JOUR 4470 - Ethics, Law and Diversity in Advertising and Public Relations}

3 hours

Study of philosophical bases for ethical behavior, as well as study of professional codes of ethics for practitioners of advertising and public relations and other journalists. Examination of mass communication law, including privacy, defamation, copyright, financial disclosure, legal and regulatory compliance. Exploration of tactics and strategies for understanding and working with diverse communities.

Prerequisite(s): Journalism major status and JOUR 3420 or JOUR 3050; journalism minor status and JOUR 2000; 12 hours of upper-level classes; consent of school.

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 or minor status; JOUR 3321 or JOUR 3323; 6 hours of upper-level news courses.

Should be taken final semester.

\section*{JOUR 4720 - Multimedia Storytelling for News}

3 hours (3;3-6)

Prepares students to work in 21st century newsrooms using digital and online media with an emphasis on video shooting and editing, creating audio slideshows and creating Web content. Focuses on advanced photojournalism and broadcast news techniques, gathering sound, shooting and editing video as well as producing visual stories. Advanced journalism practices including ethical decision-making, accuracy, writing proficiency, and meeting deadlines.

Prerequisite(s): JOUR 3700. Journalism major or minor status; JOUR 3321 or JOUR 3323; consent of school.

\section*{JOUR 4730 - Advanced Visual Communication}

\section*{3 hours (3;3)}

Guides students through both practical and theoretical explorations of visual communication for news. Explores the uses of photography, video, infographics and data visualization for compelling and visually rich print and multimedia publications. Visual media is analyzed in isolation, in relation to surrounding media and in a larger cultural context. Students produce their own visual projects and critically analyze the works of others from practical, aesthetic, ethical, legal and cultural perspectives.

Prerequisite(s): JOUR 3300. Journalism major or minor status; consent of school.

\section*{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 biweekly 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): Journalism major status; prior completion of at least one upper-level journalism skills course and consent of school.

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.

\section*{JOUR 4805 - Advertising and Public Relations Practicum}

\section*{1-3 hours}

Supervised intensive practical experience for advertising and public relations students while working in on-campus student advertising and PR agencies. 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): Journalism major status; prior completion of JOUR 3020 and JOUR 3050 or JOUR 3420; 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.

\section*{JOUR 4810 - News or Sports Practicum}

\section*{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; 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.

\section*{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.

\section*{JOUR 4850 - Magazine Production}

3 hours

Study of American magazines; production sequence of a publication, composition and printing methods, layout problems, writing to fit, costquality factors, rewrite, copy reading, styling, writing, titles, blurbs, captions and fitting galleys into layouts.

Prerequisite(s): Journalism major or minor status; JOUR 3321 or JOUR 3323; JOUR 3300 ; consent of school.

\section*{JOUR 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{JOUR 4910 - Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{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.

\section*{JOUR 4999 - News Capstone}

\section*{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 3310 or JOUR 3700 or JOUR 4321 or JOUR 4323.

Should be taken during final 30 hours of study.

\section*{Kinesiology}

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.
Same as SOCI 2050.

\section*{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.

Prerequisite(s): None.

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.

\section*{KINE 2230-Coaching Football}

3 hours

Coaching techniques of skills and strategies.

Prerequisite(s): None.

\section*{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.

\section*{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.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

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).

Prerequisite(s): Admission to teacher education program and purchase of Teaching K20 (Tk20).

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.

\section*{KINE 2900 - Special Problems}

\section*{\(1-3\) hours}

Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

\section*{KINE 2910-Special Problems}

1-3 hours

Individual study designed in consultation with instructor.
Prerequisite(s): Consent of department.

\section*{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.

\section*{KINE 3020 - Movement for Special Populations}

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): PHED 1000, KINE 2030, and KINE 2050 with a minimum average GPA of a 3.0 across the three courses.

\section*{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): PHED 1000, KINE 2030, and KINE 2050 with a minimum average GPA of a 3.0 across the three courses; BIOL 2301/BIOL 2311 and MATH 1680 with a C or better, or consent of instructor.

\section*{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): PHED 1000, KINE 2030, KINE 2050, with a minimum average GPA of a 3.0 across the three courses. BIOL 2301/BIOL 2311 and BIOL 2302/BIOL 2312, with a C or better, or consent of instructor.

Meets with BIOL 3080.

\section*{KINE 3090 - Motor Behavior}

3 hours

Concepts related to motor skill acquisition, motor control and motor performance.

Prerequisite(s): PHED 1000, KINE 2030, KINE 2050, with a minimum average GPA of a 3.0 across the three courses.

\section*{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.

\section*{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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{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.

\section*{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): None.

3 hours

Basic up-to-date view of the processes and mechanisms underlying the development of motor skills.
Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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): None.

\section*{KINE 3560 - Pedagogical Skills, Strategies and Management in Secondary Physical Education}

3 hours (2;1)
Candidates develop a sound understanding related to progression in fundamental movements and skills across all developmental levels leading to instructionally suitable and developmentally appropriate activities for all students. Candidates also acquire a thorough understanding and application of the games analysis model. Content includes lesson and unit plan design and implementation, class observation and teaching assessment, service learning experience, achievement motivation theories, and advanced technology implementation in various physical activity settings. Candidates are afforded both peer teaching and field based application of content.

Prerequisite(s): None.

\section*{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): PHED 1000, KINE 2030, KINE 2050, with a minimum average GPA of a 3.0 across the three courses.

\section*{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): PHED 1000, KINE 2030, KINE 2050, with a minimum average GPA of a 3.0 across the three courses; MATH 1680 or consent of instructor.

\section*{KINE 4100 - Curriculum and Methods in Kinesiology (Sport Pedagogy)}

\section*{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.

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.

Prerequisite(s): KINE 3020, KINE 3500, KINE 3550, KINE 3560. Admission to teacher education.

Corequisite(s): KINE 4100.

Must apply for EFE using TK20, the semester previous.

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, EDSE 3830. Admission to teacher education program; six (6) PHED courses; \(15 / 18\) hours in minor area.

Pass/no pass only.

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.

Prerequisite(s): KINE 2030, KINE 2050, KINE 3020, KINE 3050, KINE 3080, KINE 3090, KINE 3500, KINE 3550, KINE 3560, KINE 4000, KINE 4050 , KINE 4100, EDEC 3123, EDSE 3830. Admission to teacher education program; six (6) PHED courses; 15-18 hours in minor area.

Pass/ no pass only.

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 /BIOL 2311 or consent of instructor.

\section*{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 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, KINE 4200.

\section*{KINE 4260 - Principles of Rehabilitation and Therapeutic Modalities}

\section*{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 4200.

\section*{KINE 4300 - Exercise Leadership}

\section*{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 consent of instructor.

KINE 4310 - Fundamentals of Strength and Conditioning

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 3080 or consent of instructor.

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 or consent of instructor

\section*{KINE 4325 - Fitness Testing}

3 hours

Practice of fitness assessment with an emphasis on practical application.

Prerequisite(s): KINE 3080 with a grade of C or better.

\section*{KINE 4330 - 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.

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.

Prerequisite(s): None.

\section*{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.

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.

\section*{KINE 4860 - Internship in Kinesiology}

\section*{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): Minimum GPA of 3.25 in the Kinesiology core courses (KINE 3020, KINE 3050, KINE 3080, KINE 3090, KINE 4000, and KINE 4050), successful completion of the University core courses and consent of department.

\section*{KINE 4900 - Special Problems}

1-3 hours
Prerequisite(s): None.

\section*{KINE 4910 - Special Problems}

Prerequisite(s): None.

\section*{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

\section*{Language}

LANG 1010 - Elementary Language

3 hours (3;2)

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): None.

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.

\section*{LANG 1610 - 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.

Prerequisite(s): None.

Core Category: Component Area Option

LANG 2040 - Intermediate Language

3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): Foreign language course 1020 in same language, or equivalent.

\section*{LANG 2050-Intermediate Language}

3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): Foreign language course 2040 in same language, or equivalent.

\section*{LANG 2900-Special Problems}

1-4 hours

Prerequisite(s): None.

\section*{LANG 2910-Special Problems}

1-4 hours

Prerequisite(s): None.

\section*{LANG 3000-Russian Folklore and Magic}

3 hours

Exploration and analysis of core genres of Russian folklore, magic and system of popular beliefs.

Prerequisite(s): None.

This course is taught in English and does not require any knowledge of Russian.

Core Category: Language, Philosophy and Culture.

LANG 4000 - Foreign Language Teaching Methods

3 hours

Study of foreign language curriculum, instruction and assessment for future and current teachers of French, German and Spanish.

Prerequisite(s): Enrollment in a teacher preparation program and 6 advanced hours of the language to be taught. Other students require consent of department.

Designed for students in a teacher preparation program.

LANG 4900-Special Problems

1-3 hours

Prerequisite(s): None.

LANG 4910-Special Problems

1-3 hours

Prerequisite(s): None.

\section*{Latin}

\section*{LATI 1010 - Elementary Latin}
(LATI 1311 or LATI 1411 or LATI 1511)
3 hours (3;2)
Grammar and basic vocabulary.

Prerequisite(s): None.

LATI 1020 - Elementary Latin
(LATI 1312 or LATI 1412 or LATI 1512)

3 hours (3;2)
Grammar and basic vocabulary.
Prerequisite(s): LATI 1010 or equivalent.

LATI 2040 - Intermediate Latin
(LATI 2311)
3 hours

Grammar principles and readings from representative Roman authors; Vergil.

Prerequisite(s): LATI 1020 or equivalent.

LATI 2050 - Intermediate Latin
(LATI 2312)
3 hours

Grammar principles and readings from representative Roman authors; Livy.

Prerequisite(s): LATI 2040 or equivalent.

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.

LATI 4900-Special Problems

1-3 hours

Prerequisite(s): None.

LATI 4910 - Special Problems
\(1-3\) hours

Prerequisite(s): None.

\section*{Learning Technologies}

\section*{LTEC 1100-Computer Applications}

3 hours

Introduction to computer usage. Integrated approach to software tools such as word processing, data-base management, spreadsheet, communications and graphics applications.

Prerequisite(s): None.

\section*{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, netcasting, voice and video conferencing, PC-based troubleshooting techniques, electronic research, and information processing using the Internet.

Prerequisite(s): LTEC 1100, or equivalent.

\section*{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.

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.

\section*{LTEC 3010 - Personal Development}

\section*{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.

Prerequisite(s): None.

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 1100.

\section*{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 3220.

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): LTEC 1100.

\section*{LTEC 3530 - Data Communications}

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

LTEC 4100-Computers in the Classroom

3 hours

Computers in education; computer topics covered in introductory and secondary school courses. Motivation and objectives in computer education; some programming language. Instructional uses of the computer, topics in curriculum integration.

Prerequisite(s): LTEC 1100.

LTEC 4110 - Instructional Design in Career and Technical Education

3 hours

Development and use of resources for preparing contextual learning and instruction, presenting lessons and assessing learner performance. Strategies for infusing employability skills, work-based learning and applying instructional technology.

Prerequisite(s): None.

\section*{LTEC 4120 - Instructional Strategies in Career and Technical Education}

3 hours

Basic instructional techniques and media commonly utilized in applied technology, training and development; emphasis is placed on illustrated presentations and technical demonstrations.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

LTEC 4130 - Professional Responsibilities and Management in Career and Technical Education

3 hours
Examines the role and responsibilities of career and technical education professionals as well as the importance of creating a classroom and laboratory environment that fosters a positive learning climate. The role and responsibilities of career and technical education professionals as well as technology applications, effective time management, standards for student conduct and teacher liability are addressed.

Prerequisite(s): None.

\section*{LTEC 4140 - Work-Based Learning in Career and Technical Education}

3 hours

Study of the basic standards and recent changes in work-based learning. Emphasis is placed on developing materials to effectively facilitate the work-based learning component of a workforce education program.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{LTEC 4210 - Digital Multimedia in Education and Training}

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.

\section*{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.

\section*{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): COMM 1010 or LTEC 4120 or consent of department.

\section*{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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): LTEC 3530.

\section*{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.

Prerequisite(s): None.

LTEC 4740 - Instructional Internship in Applied Technology and Training

3-6 hours

Supervised observation and instructional practice in an approved applied technology program or industrial training environment; discussion and evaluation seminars are scheduled.

Prerequisite(s): Consent of department.
May be repeated for credit.

\section*{LTEC 4741 - Applied Technology and Performance Improvement Capstone}

3 hours

Designed for students to synthesize the knowledge, skills and attitudes learned throughout the undergraduate degree in Applied Technology and Performance Improvement. Students 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.

Prerequisite(s): None.

May only be taken during the final term/semester of the ATPI professional development sequence.

\section*{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.

\section*{LTEC 4830 - Practicum, Field Problem or Internship}

3 hours (1;0;6)
Supervised professional activities in computer education.

Prerequisite(s): None.

May be repeated for credit.

\section*{LTEC 4900 - Special Problems}

1-3 hours

Prerequisite(s): Consent of department.

May be repeated for credit.

LTEC 4910 - Special Problems

1-3 hours

Prerequisite(s): Consent of department.
May be repeated for credit.

\section*{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

\section*{Honors College.}

May be substituted for HNRS 4000. Course may be taken only once for Honors College credit.

\section*{Linguistics}

\section*{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.

Prerequisite(s): None.

LING 2040 - Endangered Languages

3 hours

Global survey of cultures, political ecologies and environmental issues related to language endangerment.

Prerequisite(s): None.

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.

Prerequisite(s): None.

Core Category: Component Area Option

\section*{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.
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.

\section*{LING 3040 - Language and Power}

\section*{3 hours}

Provides students with the meta-language and analytical tools to describe, analyze and uncover the various biases in language, and how these biases reflect, maintain and create power relationships among individual speakers and in the general public's opinion.

Prerequisite(s): None.

\section*{LING 3050-Animal Communication}

3 hours

Considers preconceived notions of animals in comparison to findings from recent scientific studies. Students gain a broad knowledge of the hypotheses and issues related to animals and communication. No previous knowledge of linguistics is required.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

For non-majors.
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.

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.

Prerequisite(s): For linguistics majors and minors only. Consent of linguistics program undergraduate advisor is required for non-majors.

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.

Prerequisite(s): LING 3060 or LING 3070.

\section*{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.

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.

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 only be taken once for Honors College credit.

\section*{LING 4010 - English Language in America}

3 hours

Linguistic analysis of historical and contemporary American English; regional and social variations.

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.

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.

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.

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.

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. Non-majors may also substitute LING 3060 for LING 3070.

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.

\section*{LING 4050 - Morphology and Syntax}

3 hours

Examines the internal structure of words and rules of word formation and the structure of phrases and clauses.

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.

\section*{LING 4060 - Scientific Methods}

3 hours

Hands-on introduction to the basic terminology, concepts and procedures associated with scientific thought, practice and academic writing in linguistics.

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.

LING 4070 - History of the English Language

3 hours

Evolution of Modern English from Indo-European through Old English and Middle English.

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.

\section*{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.

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 linguistics program undergraduate advisor.

\section*{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 it is required by second language users. Includes an introduction to empirical methods for the study of meaning.

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.

\section*{LING 4100-Poetics}

3 hours

Examines the universal language of linguistic power and how writers choose their words and sequences of words.
Prerequisite(s): LING 3060 or LING 3070.

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.

Prerequisite(s): LING 3060 or LING 3070.

\section*{LING 4130 - Language Data Management: Methods and Tools for Analysis and Dissemination}

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.

Prerequisite(s): LING 3070.

LING 4140-Computational Linguistics

3 hours

Research and techniques for processing language using statistical or rule-based modeling of natural language from a computational perspective.

Prerequisite(s): LING 3070.

\section*{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.

LING 4800-Special Seminar in Linguistics

3 hours

Study of linguistics that extends scope of traditional offerings.

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.

May be repeated for credit as topics vary.

LING 4900-Special Problems
\(1-3\) hours

Prerequisite(s): None.

LING 4910 - Special Problems

1-3 hours

Prerequisite(s): None.

\section*{LING 4950 - Senior Capstone Field Experience}

3 hours

Applies the tools used for linguistic research and conducting linguistic fieldwork; transcribing, coding and analyzing linguistic data; and presenting research before an audience.

Prerequisite(s): Linguistics majors only. Students must complete LING 4060 prior to registering for the Senior Capstone.

Must be taken in the final year of major. May not be taken in the same semester as LING 4060.

\section*{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.

\section*{Logistics and Supply Chain Management}

\section*{LSCM 2960-Global Logistics and Supply Chain Management}

3 hours

Introduction to the multicultural and multiracial world from a logistics and supply chain management perspective. Provides useful tools for assessing and addressing diversity in the business and global supply chain management environment. Topics include customer service, transportation, warehousing, inventory control, materials handling and packaging, information systems within and between firms throughout the global supply chain to help improve performance. Emphasis on concepts and practices that provide firms with global competitive advantage.

Prerequisite(s): None.

Cannot be used to meet business foundation, business professional field, or business supporting field requirements.

\section*{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.

\section*{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.

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 only be taken once for Honors College credit.

\section*{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.
LSCM 4510 - Logistics and Business Analysis

\section*{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.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{LSCM 4560 - Business Transportation Management}

\section*{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.

Prerequisite(s): None.

\section*{LSCM 4800 - Logistics Internship}

3 hours

Supervised work in a job related to the student's career objectives.
Prerequisite(s): LSCM 3960, LSCM 4560.

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.

\section*{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.

\section*{LSCM 4830-Industry Practicum}

3 hours

Students work in small groups to identify and resolve hands-on industry problems under the guidance of a faculty member, work closely with industry representatives and develop solutions for a final paper/presentation to industry executives.

Prerequisite(s): LSCM 3960 and at least one other LSCM course.

\section*{LSCM 4860 - Advanced Logistics Management}

\section*{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.

\section*{LSCM 4900 - Special Problems}

\section*{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.

\section*{LSCM 4951 - Honors College Capstone Thesis}

\section*{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.

\section*{Management}

\section*{MGMT 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.

\section*{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.

Prerequisite(s): None.
Core Category: Component Area Option

\section*{MGMT 3610-Small Business Development I}

3 hours

Objective is to enhance students' immersion and engagement in the entrepreneurial process through hands-on experience of developing a business and preparing students for actual execution of a business project in an existing or new business. Covers a series of topics which provide the fundamental theoretical background for business development. Topics include economic and environmental context, financial literacy, motivation and leadership, ethics in free enterprise, business idea generation and project execution. Involves the preparation of a business project that includes the development or re-design of a business.

Prerequisite(s): None.

\section*{MGMT 3620 - Small Business Development II}

3 hours

Objective is to enhance students' immersion and engagement in the entrepreneurial process through hands-on experience of actual execution of a developed project in an existing or new business. Covers a series of topics which provide the fundamentals for a background for business development plan implementation. Topics include continued environmental scanning, resource acquisition and allocation, project implementation, staffing needs, monitoring progress, and communicating and presenting project results. Involves the execution of a business project.

Prerequisite(s): MGMT 3610.

\section*{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): None.

\section*{MGMT 3810 - Principles of Family Business}

\section*{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): None.

Open to business and non-business majors.

\section*{MGMT 3820 - Management Concepts}

\section*{3 hours}

Management philosophy; planning, organizing and controlling; entrepreneurial processes; organizational performance; structure and design. Includes an overview of organization theory and strategic management.

Prerequisite(s): None.

MGMT 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.

MGMT 3850 - Foundations of Entrepreneurship

3 hours

Initiation of new ventures and approaches to growth of existing firms through opportunity recognition, innovation and change. Emphasizes developing effective entrepreneurial skills and behaviors. Includes preparation of a comprehensive business plan.

Prerequisite(s): None.

Open to non-business majors.

\section*{MGMT 3860 - Human Resource Management}

\section*{3 hours}

Introduction to personnel management. Topics include employment, placement and personnel planning, training and development; compensation and benefits; health, safety and security; and employee and labor relations.

Prerequisite(s): None.

Open to non-business majors.

\section*{3 hours}

Develops skills in management research methods necessary for problem-solving success. Particular emphasis is given to applying theory to management decision making based on objective methods for solving problems in organizational behavior, human resource management, entrepreneurship and operations.

Prerequisite(s): DSCI 2710 or equivalent and completion of all pre-business courses.

\section*{MGMT 3880-Business Ethics and Social Responsibility}

\section*{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.

Prerequisite(s): None.

\section*{MGMT 3915 - Creativity and Opportunity Development}

3 hours

Deals with frameworks, functions, and workings of creativity and opportunity development, and with their role in new startups and in managing firms for sustainable competitive advantage. Emphasis placed on enhancing students' competence in creative thinking, generating ideas, and identifying and developing business opportunities. Topics may include individual creativity, business opportunities, and management techniques for enhancing creativity and for recognizing and developing opportunities in new and established organizations.

Prerequisite(s): None.

\section*{MGMT 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 only be taken once for Honors College credit.

\section*{MGMT 4170 - Employee and Labor Relations}

3 hours

Employee-employer relationships; problems and theories of the bargaining process.

Prerequisite(s): None.

\section*{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): None.

Open to non-business majors.

\section*{MGMT 4200 - Strategic Processes}

3 hours

Study of the context and concepts of strategic decision making. Topics include strategic leadership, corporate governance, international influences on strategic decisions, and strategic risk management.

Prerequisite(s): Senior standing.

\section*{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.

Prerequisite(s): MGMT 3820 or MGMT 3850.

\section*{MGMT 4220 - Advanced Entrepreneurship}

3 hours

Provides students with concepts and hands-on opportunities that are related to the development, growth, and management of new ventures. Focuses on application and integration of entrepreneurship principles to ensure success of entrepreneurial undertaking. Emphasis is placed on contextual influences during various stages of development and their implications, and on comprehensive analysis and evaluation of businesses from an entrepreneurial perspective. Topics may include such areas as technology and new ventures, growth and expansion, family business, or capital funding.

Prerequisite(s): MGMT 3330, MGMT 3720, MGMT 3850, MKTG 3650, FINA 3770 and DSCI 3710. MGMT 3330, MGMT 3720, MKTG 3650 may be taken concurrently.

\section*{MGMT 4235-Social Entrepreneurship}

\section*{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.

Prerequisite(s): None.

\section*{MGMT 4300-Recruitment, Selection and Placement}

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): None.

\section*{MGMT 4330 - Administrative Communication}

\section*{3 hours}

Development of administrative communication skills including factors affecting the communication process and its effects on specific
organizational/personnel situations. Topics include organizational communication, interviewing (selection, disciplinary, counseling, orientation and exit), policy manuals, communication audit tools, gender-related communication differences and electronic communication media.

Prerequisite(s): MGMT 3330 or equivalent experience and consent of department.

\section*{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.

Prerequisite(s): None.

\section*{MGMT 4350 - Training and Development}

\section*{3 hours}

Practical and theoretical approaches to the training and development of employees in an organization. Topics include organization, role and scope of the T and D function, philosophies; strategies and needs analysis; development of program content, methods, materials and techniques, and evaluation and control of the training and development function.

Prerequisite(s): None.

MGMT 4400-Managing Interpersonal Relationships

3 hours

Practical and theoretical course dealing with small group behavior. Emphasis is on identifying and classifying behavior to better understand it and to develop strategies for effectively managing interpersonal and group relationships. Exercises and role playing are used to illustrate major points.

Prerequisite(s): None.

\section*{MGMT 4460 - Topics in Organizational Behavior}

3 hours

Study of individual and group behavior in organizations. Representative topics include employee motivation, leadership, organizational power and politics, decision making and performance, organizational culture, perception and attribution, and individual differences. Students study one or more of these topics in depth.

Prerequisite(s): MGMT 3720 or consent of instructor.

May be repeated for credit as topics vary.

\section*{MGMT 4470 - Leadership}

\section*{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.

Prerequisite(s): None.

\section*{3 hours}

Study of entrepreneurs, entrepreneurship, and new business. Representative topics include start-up motives, strategic issues in small and entrepreneurial businesses, franchising, behavioral issues in small business management, legitimacy of new business, international aspects for new and small businesses, family business, succession, growth and alliances for small businesses, decision making and the entrepreneur. Students study one or more of these/such topics in depth.

Prerequisite(s): None.

May be repeated for credit as topics vary.

\section*{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.

Prerequisite(s): None.

\section*{MGMT 4790 - Human Resources Capstone Course}

3 hours

Capstone 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): None.

To be taken within the final 9 hours of course work.

\section*{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.

\section*{MGMT 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.

Prerequisite(s): None.

\section*{MGMT 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): MGMT 3830.

\section*{MGMT 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): MGMT 3830.

MGMT 4840 - Compensation and Benefits Administration

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): None.

Open to non-business majors.

\section*{MGMT 4850 - Lean Manufacturing}

\section*{3 hours}

Involves the study and application of Lean principles. Emphasis is placed on material flow analysis, process and continuous improvement techniques, along with employee development and empowerment as integral aspects of Lean manufacturing. Addresses not only Lean manufacturing techniques as applied throughout production processes, but also the application of Lean extending upstream in coordination with suppliers. The associated integrative concepts of Lean provide the framework for the course.

Prerequisite(s): MGMT 3830.

\section*{MGMT 4860-Organizational Design and Change}

\section*{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.

Prerequisite(s): None.

\section*{MGMT 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): MGMT 3830.

\section*{MGMT 4890 - Legal Aspects of Employment Practices}

3 hours

Current legislation and its impact on human resources policy and practices.
Prerequisite(s): None.

\section*{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.

\section*{MGMT 4910-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.

\section*{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.

\section*{Manufacturing Engineering Technology}

\section*{MFET 3110 - Machining Principles and Processes}

4 hours (3;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.

MFET 4190-Quality Assurance

3 hours

Review of statistics and discussion of statistical process control (SPC). The study of quality management, including preproduction supplier, inprocess and finished product quality; methods of statistical analysis and quality audits, costs and employee training.

Prerequisite(s): MATH 1720.

\section*{MFET 4200 - Engineering Cost Analysis}

2 hours

Principles and techniques for cost evaluation of engineering design including: labor, material and business accounting analysis; forecasting tools and techniques; operation, product, project and system estimating; and, contract considerations.

Prerequisite(s): MATH 1720.

\section*{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. Completion of math and science requirements.

\section*{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 or consent of instructor.

\section*{Marketing}

\section*{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.

Prerequisite(s): None.

Core Category: Component Area Option

\section*{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.

\section*{MKTG 3010 - Professional Selling}

3 hours
Professional selling principles and practices for business applications. Principles of communication, listening, selling yourself and a business sales model. Students develop and present two sales presentations. Satisfies the CoB business foundation communication requirement.

Prerequisite(s): None.

Open to all majors.
Core Category: Component Area Option

MKTG 3650 - Foundations of Marketing Practice

3 hours

Survey of marketing concepts and practices and overview of the range of activities performed by marketing managers. Topics include the identification of market opportunities, strategic marketing planning, product/service development and management, price setting and management, establishing and managing distribution channels, and structuring promotional programs.

Prerequisite(s): Junior standing.

\section*{MKTG 3660 - Advertising Management}

3 hours
Advertising for business executives; creation of primary demand, stimuli, promotional programs, media selection, appropriation and evaluation.

Prerequisite(s): MKTG 3650.

\section*{3 hours}

Calculate, understand and interpret fundamental metrics or indicators of performance in marketing contexts. The pedagogical method is hands-on analysis of mini-cases, problems and exercises, using hand calculation as well as computer worksheets.

Prerequisite(s): MKTG 3650 (may be taken concurrently, but completion is recommended).

\section*{MKTG 3710 - Marketing Research and Analytics}

3 hours

Market-research based marketing decision making (e.g. segmentation, targeting, positioning, marketing planning, profitability management, and assessing and ROI of marketing campaigns) 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 and MKTG 3700 (both may be taken concurrently).

\section*{MKTG 3720 - Internet Marketing Concepts and Strategy}

\section*{3 hours}

Students are expected to garner an appreciation for the role of e-commerce for creating competitive advantage in the global marketplace. Course reviews models and strategies pertinent to Internet marketing, including market segmentation, marketing mix strategies and customer relationship management.

Prerequisite(s): MKTG 3650.

\section*{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.

Prerequisite(s): None.

\section*{MKTG 3996 - Honors College Mentored Research Experience}

\section*{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 only be taken once for Honors College credit.

\section*{MKTG 4120-Consumer Behavior}

\section*{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 group and household.

Prerequisite(s): MKTG 3650.

\section*{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.

\section*{MKTG 4320 - New Product Development}

3 hours

Understanding customer needs and translating them into new products and services whose design and presentation address those needs. Applying a disciplined approach to the new product development process from idea generation to product launch.

Prerequisite(s): MKTG 3700, MKTG 3710 (may be taken concurrently).

\section*{MKTG 4330 - Strategic Brand Management}

3 hours

Course concentrates on strategic and operational issues related to brand management-an important aspect of marketing function-its integration in the organization, management of portfolio of brands, environmental scanning, identification and creation of value to offer to consumers, budgeting, planning, and control issues. Specific areas include research, data management, analyses for planning and decision making, decisions in the areas of product/service offering, pricing, communication (advertising, sales promotion, sponsorship and publicity), channels, ethics and global implications, among others.

Prerequisite(s): MKTG 3650 and MKTG 3700 (may be taken concurrently).

\section*{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.

Open only to students admitted into the BBA in marketing with a concentration in professional selling or the minor in professional selling.

\section*{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 bench-marking.

Prerequisite(s): MKTG 3650.

\section*{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.

Open only to students admitted into the BBA in marketing with a concentration in professional selling or the minor in professional selling.

\section*{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.

\section*{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.

\section*{MKTG 4630 - Electronic Retailing and Promotion Strategies}

3 hours

Addresses advanced aspects of retailing concepts in an electronic, online setting. Topics include promotional issues, privacy and security concerns, target market assessment, building a customer base, site design, order tracking and shipping.

Prerequisite(s): MKTG 3650.

\section*{MKTG 4640 - Database Marketing Fundamentals}

\section*{3 hours}

Examines theories, issues, processes and applications involved in the strategic use of marketing databases in corporate and non-corporate settings. Emphasizes the importance of acquiring, maintaining and processing market-related information. Introduces the extension of database marketing to the concept of one-to-one marketing. Discusses uses of computer hardware and software, the Internet and telecom technology in database marketing. Examines issues involved in the creation and maintenance of marketing databases as well as their varied uses. Students complete a project, learning and using many skills related to applied database marketing.

Prerequisite(s): MKTG 3650, MKTG 4620.

\section*{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.

Open only to students admitted into the BBA in marketing with a concentration in professional selling or the minor in professional selling.

\section*{MKTG 4750 - Services Marketing}

3 hours

Places emphasis on examination of the basic "building blocks," characteristics and nature of the service product and importance in the economy. Focuses on the "service-dominant logic (SDL) model" and competitive marketing strategies. Students acquire creative and critical thinking skills in case study and real industry analysis culminating in writing a report and making verbal presentations.

Prerequisite(s): MKTG 3650.

\section*{MKTG 4770 - Sales Force Design and Management}

\section*{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 sales people. 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.

Open only to students admitted into the BBA in marketing with a concentration in professional selling or the minor in professional selling.

\section*{MKTG 4800 - Internship in Marketing}

3 hours

Supervised work in a job related to student's career objective or equivalent.
Prerequisite(s): MKTG 3650 and departmental consent.

\section*{MKTG 4805 - Internship in Professional Selling}

1-3 hours

Supervised work in a job related to student's career objective or equivalent.

Prerequisite(s): Consent of department.
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.

\section*{MKTG 4810 - Special Topics in Marketing or Logistics}

3 hours

Investigation, analysis and discussion of a variety of topics that are important in marketing and logistics. Topics may include supply chain management, transportation, logistics, distribution and channel management, product development and management, sales management, consultative and team selling, promotion, market segmentation and opportunity analysis, and strategic pricing.

Prerequisite(s): Completion of 9 hours of upper-division marketing courses.

May be repeated for credit as topics vary.

\section*{MKTG 4880 - Advanced Marketing Management}

\section*{3 hours}

Application of concepts, tools and procedures employed by practicing marketing managers. Specific attention is given to product development and management, promotion development and management, channel selection and management, physical distribution management and price setting and management. Students acquire skills in the essentials of case analysis and written as well as oral presentation of their analysis. Oral presentations may be made using electronic media. Groups may be required for case work.

Prerequisite(s): MKTG 3700, MKTG 3710.

\section*{MKTG 4890-Applied Marketing Problems}

3 hours

Capstone marketing course. Students work in team settings to analyze cases and to develop a comprehensive marketing plan, requiring 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 and graduating senior status.

\section*{MKTG 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{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.

\section*{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.

Prerequisite(s): None.

Core Category: Component Area Option

MTSE 2900 - Introduction to Materials Science Research

1-3 hours
Individualized laboratory instruction. Students may begin training on laboratory research techniques.

Prerequisite(s): None.

MTSE 2910 - Introduction to Materials Science Research

1-3 hours

Individualized laboratory instruction. Students may begin training on laboratory research techniques.
Prerequisite(s): None.

\section*{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.

\section*{MTSE 3000 - Fundamentals of Materials Science and Engineering}

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): PHYS 1710. CHEM 1410/CHEM 1430 or CHEM 1415/CHEM 1435.

\section*{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.

\section*{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): ENGR 3450.

\section*{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): ENGR 3450.

\section*{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, ENGR 3450.

\section*{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.

Prerequisite(s): ENGR 3450.

\section*{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.

\section*{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.

\section*{MTSE 3080 - Materials Processing}

3 hours

Basic principles and strategies for processing metals, ceramics, polymers, composites and electronic materials.
Prerequisite(s): MTSE 3040.

\section*{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): ENGR 3450.

\section*{MTSE 3100 - Materials Science and Engineering Laboratory II}

\section*{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.

\section*{MTSE 3996 - Honors College Mentored Research Experience}

\section*{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 only be taken once for Honors College credit.

\section*{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.

\section*{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 3010, MTSE 3050.

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.

\section*{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.

\section*{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 polymerbased materials.

Prerequisite(s): ENGR 3450.

\section*{MTSE 4060 - Materials Selection and Performance}

\section*{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

\section*{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): ENGR 3450, MATH 3410.

\section*{MTSE 4090 - Senior Design I}

2 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).

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{MTSE 4910 - Materials Science Research}

\section*{1-3 hours}

Introduction to research; may consist of an experimental, theoretical or review topic.

Prerequisite(s): None.

\section*{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.

\section*{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.

\section*{Mathematics}

\section*{MATH 1010 - Fundamentals of Algebra}

3 hours

Basic algebraic operations, linear equations and inequalities, polynomials, rational expressions, factoring, exponents and radicals, and quadratic equations.

Prerequisite(s): Consent of department.

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.

\section*{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): Two years of high school algebra and one year of geometry, and consent of department; or a grade of C or better in MATH 1010, MATH 1581 or MATH 1681.

A grade of C or better in MATH 1100 is required when MATH 1100 is a prerequisite for other mathematics courses.

MATH 1180 - College Math for Business, Economics 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): Two years of high school algebra and one year of geometry, and consent of department. Students who feel they acquired solid algebra skills in high school are strongly encouraged to take the mathematics placement exam to see if they may begin in MATH 1190 instead.

A grade C or better in MATH 1180 is required when MATH 1180 is a prerequisite for other mathematics courses.

Core Category: Mathematics

MATH 1190 - Business Calculus
(MATH 1325 or MATH 1425)

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

\section*{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.

Core Category: Mathematics

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.

\section*{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): Two years of high school algebra and one year of high school geometry and consent of department, or MATH 1010 with a grade of \(C\) or better.

Students may not receive credit for both MATH 1580 and MATH 1581.

\section*{Core Category: Mathematics}

\section*{MATH 1581 - Survey of Mathematics with Applications and Algebra Review}

4 hours (3;1)

An alternate version of MATH 1580 for students identified in the mathematics placement process as requiring supplemental instruction to strengthen their algebra skills. Students may not enroll in this course if they have received credit for any other UNT mathematics course with a grade of C or better.

Prerequisite(s): Consent of department.
Students may not enroll in this course if they have received credit for any other UNT mathematics course with a grade of C or better. Students may not receive credit for both MATH 1580 and MATH 1581.

\section*{Core Category: Mathematics}

\section*{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.

Core Category: Mathematics

\section*{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): 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.

Core Category: Mathematics

\section*{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): MATH 1100 with a grade of C or better.

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

MATH 1680 - Elementary Probability and Statistics
(MATH 1342 or MATH 1442 or MATH 2342 or MATH 2442)
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.

Students may not receive credit for both MATH 1680 and MATH 1681.

Core Category: Mathematics

MATH 1681 - Elementary Probability and Statistics with Algebra Review
(MATH 1442)
4 hours (3;1)

Alternate version of MATH 1680 for students identified in the mathematics placement process as requiring supplemental instruction to strengthen their algebra skills.

Prerequisite(s): Consent of department.

Students may not enroll in this course if they have received credit for any other UNT mathematics course with a grade of C or better. Students may not receive credit for both MATH 1680 and MATH 1681.

\section*{Core Category: Mathematics}

MATH 1710-Calculus I
(MATH 2313 or MATH 2413 or MATH 2513)

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): MATH 1650; or both MATH 1600 and MATH 1610.
Core Category: Mathematics

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): MATH 1710.

\section*{MATH 1780 - Probability Models}

3 hours

Probability theory, discrete and continuous random variables, Markov chains, limit theorems, stochastic processes, models for phenomena with statistical regularity.

Prerequisite(s): MATH 1710.

\section*{MATH 2000 - Discrete Mathematics}
(MATH 2305 or MATH 2405)

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 (may be taken concurrently).

Core Category: Component Area Option

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) and TNTX 1100 (may be taken concurrently), or consent of the Teach North Texas advisor.

\begin{abstract}
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.
\end{abstract}

Prerequisite(s): MATH 1720.

MATH 2730 - Multivariable Calculus
(MATH 2315 or MATH 2415)
3 hours
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Vectors and analytic geometry in 3-space; partial and directional derivatives; extrema; double and triple integrals and applications; cylindrical
and spherical coordinates.
Prerequisite(s): MATH 1720.
MATH 2900-Special Problems
1-3 hours
Prerequisite(s): None.
May be repeated for credit.
MATH 2910-Special Problems

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1-3 hours
Prerequisite(s): None.

May be repeated for credit.

\section*{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.

\section*{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): MATH 1720.

\section*{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.

Prerequisite(s): None.

May be repeated for credit.

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.

\section*{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, FINA 3770 and consent of department.

\section*{MATH 3350 - Introduction to Numerical Analysis}

3 hours

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.

\section*{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.

\section*{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): MATH 1720, MATH 2700 recommended (may be taken concurrently).

\section*{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 firstorder 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.

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).

\section*{MATH 3610-Real Analysis II}

3 hours

Continuation of MATH 3000. Topics include derivatives, integrals, limits of sequences of functions, Fourier series; and an introduction to multivariable analysis

Prerequisite(s): MATH 3000 and MATH 2700 (may be taken concurrently).

\section*{MATH 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).

\section*{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.

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.
Corequisite(s): MATH 2700.

\section*{MATH 3870 - Inventing Statistics}

3 hours

Critical examination of the central concepts of statistics using the original books and papers, the historical situation and the biographies of some of the creators of statistics. Topics include the debate on Bayes' theorem, John Snow and the Broad Street pump, the origins and rise of statistics, the controversy concerning the normal distribution and the central limit theorem, the debate on confidence intervals and sufficient statistics, and other topics. Intended for both mathematics majors and students majoring in other disciplines that make use of statistics and mathematical reasoning.

Prerequisite(s): MATH 1710, junior or senior standing, and one of the following: MATH 1780, MATH 3680, MATH 4610, ECON 4630 or DSCI 3710, or another appropriate advanced probability, statistics, or quantitative methods course with the consent of the department.

\section*{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 only be taken once for Honors College credit.

\section*{MATH 4010 - Introduction to Metamathematics}

3 hours

Introduction of the syntax and semantics of propositional logic and first-order logic. Topics include quantifier elimination, compactness and completeness theorems, Craig's interpolation theorem, elementary submodels, 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.

\section*{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.

\section*{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.

\section*{MATH 4090 - Senior Seminar}

3 hours

Capstone for mathematics majors intending to continue their education. Seminar of contemporary issues in mathematical or statistical research, supplemented by an advanced text. Students work on individual projects to develop a deeper appreciation for mathematical research and questions that motivate research.

Prerequisite(s): Senior standing; MATH 2700; MATH 3410; MATH 3510; MATH 3610; and MATH 3680 or MATH 4610.

\section*{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, MATH 2700. MATH 2730 and MATH 3410 are recommended (may be taken concurrently).

\section*{MATH 4200 - Dynamical Systems}

3 hours

One-dimensional dynamics. Sarkovskii's theory, routes to chaos, symbolic dynamics, higher-dimensional dynamics, attractors, bifurcations, quadratic maps, Julia and Mandelbrot sets.

Prerequisite(s): MATH 3610.

\section*{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.

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.

\section*{MATH 4500 - Introduction to Topology}

3 hours

Point set topology; connectedness, compactness, continuous functions and metric spaces.

Prerequisite(s): MATH 3610.

\section*{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.

\section*{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.

MATH 4600 - 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): MATH 1720 with a C or better, MATH 3680 (may be taken concurrently) and FINA 3770 (may be taken concurrently).

\section*{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 MATH 3680 or consent of department.

\section*{MATH 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. MATH 3680 or at least a 4 on the AP Statistics test.

MATH 4810-Biocomputing

\section*{3 hours}

Introduction to computational problems inspired by the life sciences and overview of available tools. Methods to compute sequence alignments, regulatory motifs, phylogenetic trees and restriction maps.

Prerequisite(s): MATH 1720.
Same as BIOL 4810 and CSCE 4810.

\section*{MATH 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{MATH 4910-Special Problems}
\(1-3\) hours

Prerequisite(s): None.

\section*{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.

\section*{Mechanical and Energy Engineering}

\section*{MEEN 1000 - Discover Mechanical and Energy Engineering}

3 hours

Discovery Core course in Mechanical and Energy Engineering (MEE) which also serves as the heart of the MEE first year experience. 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. The project is a major, team-based, competitive engineering design-and-build effort. Teaches students to think critically and creatively by applying a range of analysis techniques borrowed from many engineering and science disciplines.

Prerequisite(s): MATH 1650 (with grade of C or better).

Required for the BS degree in mechanical and engineering at UNT.

Core Category: Component Area Option

\section*{MEEN 1110 - Mechanical and Energy Engineering Practice I}

\section*{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.

\section*{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).

\section*{MEEN 2110 - Engineering Data Analysis}

2 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 1710.

\section*{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.

\section*{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, PHYS 1710.

\section*{MEEN 2240 - Programming for Mechanical Engineers}

\section*{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): None.
Corequisite(s): MATH 2700.

\section*{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).

\section*{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 or PHYS 1730; MATH 1710.

\section*{MEEN 2302 - Mechanics II}

\section*{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, MATH 1720.

\section*{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.

\section*{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.

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.

\section*{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.

\section*{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): ENGR 2332 and ENGR 3450.

\section*{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.

\section*{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.

\section*{MEEN 3125 - Thermal Engineering Projects}

\section*{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.
Corequisite(s): MEEN 3110, MEEN 3120.

\section*{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): MEEN 1000, ENGR 1304 and ENGR 2332.

\section*{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, ENGR 2332.

\section*{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.

\section*{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.

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; ENGR 2302.

\section*{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.

\section*{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; MEEN 3210 (may be taken concurrently).

\section*{MEEN 3250 - Analytical 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 and MEEN 2240.

\section*{MEEN 3996 - Honors College Mentored Research Experience}

\section*{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 only be taken once for Honors College credit.

\section*{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 and MEEN 3210.

\section*{MEEN 4110 - Alternative Energy Sources}

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 3120, MEEN 3210.

\section*{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.

\section*{MEEN 4120 - Aerospace Fundamentals}

3 hours

Introduction to the fundamental knowledge used in the aerospace industry. Topics include basic aerodynamics, guidance and control methods, fight dynamics, and 6 Degree of Freedom (6-DoF) motion and simulation for aircraft and missiles. Kalman Filtering and Monte Carlo simulation techniques also are discussed.

Prerequisite(s): MATH 2700, MEEN 3120, MEEN 3230.

\section*{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): ENGR 2332, ENGR 3450.

Same as MEET 4130.

\section*{MEEN 4140 - Finite Element Analysis}

3 hours (3;2;1)

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, ENGR 2332, ENGR 2302.

\section*{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 or ENGR 2405, MEEN 3130, MEEN 3210, MEEN 3230

\section*{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): ENGR 2301.

\section*{MEEN 4152 - Mechanics of Composites and Foams for Lightweight Energy Efficient Structures}

3 hours

Materials, mechanics and failure criteria of anisotropic materials (composites) and cellular solids.

Prerequisite(s): ENGR 2332.

\section*{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, ENGR 2302.

\section*{MEEN 4250 - Capstone Design in Mechanical and Energy Engineering}

3 hours (0;9)

Capstone Core course in Mechanical and Energy Engineering (MEE) culminating the experience of the Bachelor of Science degree in MEEN, 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 with a grade of C or better.

Required for the BS degree in mechanical and energy engineering at UNT.

\section*{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.

MEEN 4310 - Intermediate Heat Transfer

\section*{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.

\section*{MEEN 4315 - Nanoscale Energy Transport Process}

\section*{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.

\section*{MEEN 4320 - Mechanical Systems for Buildings}

3 hours

Course on heating and cooling of buildings with focus on application of thermodynamics, fluid dynamics and heat transfer. Topics include psychometric processes, basics of fluid flow, heat transfer in buildings, heating and cooling energy calculations, HVAC air and water distribution equipment and systems, and energy-efficient design of buildings.

Prerequisite(s): MEEN 3120, MEEN 3210 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.

\section*{MEEN 4330 - Introduction to Combustion Science and Engineering}

\section*{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.

\section*{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.

\section*{MEEN 4335 - Computational Simulation of Building Energy Systems}

\section*{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 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.

\section*{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 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.

\section*{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 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.

\section*{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, 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).

\section*{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).

\section*{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.

\section*{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.

\section*{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.

\section*{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.

\section*{MEEN 4890 - Directed Study in Mechanical and Energy Engineering}

\section*{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.

\section*{MEEN 4900 - Special Problems in Mechanical and Energy Engineering}

\section*{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.

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.

MEEN 4920 - Cooperative Education in Mechanical and Energy Engineering

1 hour (0;0;3)

Supervised field work in a job directly related to the student's major, professional field of study or career objectives. Summary report required.

Prerequisite(s): None.

May be repeated for credit. Grades will not be included in student's major GPA calculation.

\section*{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.

\section*{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.
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Mechanical Engineering Technology
MEET 2900-Special Problems
1-4 hours
Prerequisite(s): None.
MEET 2996 - Honors College Mentored Research Experience
3 hours

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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.
MEET 3650 - Design of Mechanical Components
3 hours
Design and selection of machine elements.
Prerequisite(s): ENGR 2332.
MEET 3940 - Fluid Mechanics Applications
3 hours (2;2)
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.
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.

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 only be taken once for Honors College credit.

MEET 4050 - Mechanical Design

\section*{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.

\section*{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.

\section*{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.
Same as MEEN 4130.

\section*{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.

MEET 4360 - Experimental Thermal Sciences

2 hours (1;3)

Designing and conducting experiments in fluid mechanics, hydraulics, thermodynamics and heat transfer.
Prerequisite(s): MEET 3940, MEET 3990 and MEET 4350 or concurrent enrollment.

\section*{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.

\section*{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): MEET 4050, MEET 4350, MFET 4210 (any may be taken concurrently with MEET 4780).

\section*{MEET 4790-Senior Design II}

3 hours (1;4)

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.

\section*{MEET 4900-Special Problems}

1-4 hours

Prerequisite(s): None.

\section*{MEET 4910 - Special Problems}

1-4 hours

Prerequisite(s): None.

\section*{MEET 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.

\section*{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.

\section*{Media Arts}

\section*{MRTS 1310-Perspectives on Broadcast, Cable and Internet Technology}
(COMM 1335)
3 hours

Introduction to the historical, programming, physical, legal, social, and economic aspects of broadcasting, cable and internet technologies.

Prerequisite(s): Pre-major status in media arts (PMRT) or CBCM (PCBM) and completion of 12 hours of UNT course work or accepted in transfer with a GPA of 2.75 or better.

\section*{MRTS 1320 - Perspectives on Film}
(COMM 2366 or DRAM 2366)

3 hours

An introduction to film studies. Areas of study include the production, distribution and reception of film with a special emphasis on film form. Also introduces broader concepts of ideology and representation as theorized within cultural studies.

Prerequisite(s): Pre-major in media arts (PMRT) and completed 12 hours of UNT course work or accepted in transfer with a GPA of 2.75 or better.

\section*{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 pre-majors.

Prerequisite(s): Pre-major in media arts (PMRT) or CBCM major.

\section*{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): Pre-major in converged broadcast media (PCBM) and MRTS 1310, or major in Media Arts (MRTS).

\section*{MRTS 2900-Special Problems}

1-3 hours

Prerequisite(s): None.

May be repeated for credit up to a maximum of 6 hours.

\section*{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.

\section*{MRTS 3210 - Audio Production}

3 hours (2;3)

Audio production concepts and techniques using audio laboratory studio equipment.
Prerequisite(s): MRTS/CBCM major status and MRTS 2210.

\section*{MRTS 3220 - Video Production}

3 hours (2;4)

Video production concepts and techniques using television studio equipment.

Prerequisite(s): MRTS/CBCM major status and MRTS 2210.

\section*{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.

\section*{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 and MRTS 2210.

\section*{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 junior standing.

\section*{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 junior standing.

\section*{MRTS 3360-Social Media Strategies}

3 hours
Introduces students to digital media tools and platforms for the purposes of collaboration, research, analysis and communication.

Prerequisite(s): MRTS/CBCM major status or consent of department.

\section*{MRTS 3465 - American Film History}

3 hours

Survey of cinema in America from its earliest precursors until today.
Prerequisite(s): MRTS/CBCM major status.

\section*{MRTS 3470 - Film History to 1945}

3 hours (3;0;3)

Aesthetic, technological and industrial development of film from 1896 to 1945. Concentrates on the narrative film.

Prerequisite(s): MRTS/CBCM major status.

\section*{MRTS 3475 - Film History from 1945}

3 hours (3;0;3)
Aesthetic, technological and industrial development of film from 1945 to present. Concentrates on the narrative film.

Prerequisite(s): MRTS/CBCM major status.

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 3482, MRTS 3483, MRTS 3501, 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.

\section*{MRTS 3483 - Film Practicum}

1-3 hours

Supervised field and studio work in the Department of Media Arts' studios.

Prerequisite(s): MRTS/CBCM major status, junior standing and consent of department.
May be repeated for credit; however, no more than 6 hours of total credit for MRTS 3482, MRTS 3483, MRTS 3501, 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.

\section*{MRTS 3501 - Television Practicum}

\section*{1 hour}

Supervised work in the on-campus television activities of the Department of Media Arts, such as NTTV (North Texas Television). Students learn various production techniques and the operations of a television station but do not check out production equipment or reserve television studio time without specific approval from the practicum instructor.

Prerequisite(s): MRTS/CBCM major status, consent of department and junior standing.

May be repeated for credit; however, no more than 6 hours of total credit for MRTS 3482, MRTS 3483, MRTS 3501, 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.

MRTS 3502 - Advanced Television Practicum

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, consent of department and junior standing.

May be repeated for credit; however, no more than 6 hours of total credit for MRTS 3482, MRTS 3483, MRTS 3501, 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.

\section*{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 and MRTS 2210.

\section*{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 major status, or CBCM major status and MRTS 1320; or consent of department.

\section*{MRTS 3650 - 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 3210. MRTS/CBCM major status.

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 only be taken once for Honors College credit.

\section*{MRTS 4100 - Professional Event Directing: Theory and Practice}

3 hours

Sports and major event directing with emphasis on multi-camera event directing. Sports/events coverage includes industry issues, theory of sports broadcasting, ethics of event productions and economics of media events.

Prerequisite(s): MRTS 3220. CBCM or MRTS major status; consent of department.

\section*{MRTS 4110 - 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.

\section*{MRTS 4120 - U.S. Television History}

3 hours (2;3)

Overview of the technical, economic, regulatory, and social factors influencing the development of U.S. television broadcasting from its inception to the present. Critical analysis of television program forms and strategies.

Prerequisite(s): MRTS/CBCM major status.

\section*{MRTS 4130 - Convergence Practicum}

\section*{1-3 hours}

Extensive hands-on experience turning a daily product for converged student media. Daily experience with interviewing, shooting, editing and writing news stories for KNTU-FM, NTTV, The NTDaily, and their web sites. Experience in the craft of journalism as practiced in a modern day converged electronic news environment.

Prerequisite(s): MRTS/CBCM major status and consent of department.

May be repeated for credit; however, no more than 6 hours of total credit for MRTS 3482, MRTS 3483, MRTS 3501, MRTS 3502, MRTS 4130 , MRTS 4480, MRTS 4900, and MRTS 4910 may be applied to the 42 hours of RTVF credit required for the degree. Pass/no pass only.

\section*{MRTS 4140 - Intermediate Film Production}

3 hours (3;2)

Scripting, preproduction, cinematography, directing, editing and using 4K Digital Cinema equipment.
Prerequisite(s): MRTS majors only; MRTS 3210 and MRTS 3230 with a grade of B or better and consent of instructor.

3 hours

Production for mobile media and the web. Focuses on all aspects of non-narrative media including documentary, sports, entertainment and news. Concentrates on quality storytelling in real-world situations.

Prerequisite(s): CBCM/MRTS major status, MRTS 2210 and MRTS 3220 or consent of department.

\section*{MRTS 4170 - Television Field Production}

3 hours

Strong emphasis on shooting live events of various types. Sports, corporate and entertainment events, outdoor events such as disasters, documentaries and other "big picture" stories.

Prerequisite(s): CBCM/MRTS major status; MRTS 2210 and MRTS 3220 or consent of department.

MRTS 4200 - Applied Multimedia Aesthetics

3 hours

Exploration of aesthetic dimensions of television, film, and other visual media.

Prerequisite(s): MRTS 3230. MRTS/CBCM major status.

\section*{MRTS 4220 - Post-War European Film}

3 hours

Examines three major film movements that developed in Europe after WWII: Italian Neorealism, the French New Wave, and British New Wave. Identifies the historical and cultural influences behind these film movements and explores the aesthetics of each movement and how these aesthetics reflect the philosophical and/or political ideals of the filmmakers.

Prerequisite(s): MRTS 3610. MRTS/CBCM major status.

\section*{MRTS 4240 - Hitchcock Films}

3 hours

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 and MRTS 3610.

\section*{MRTS 4320 - Electronic Media Law and Regulations}

3 hours

Laws and regulations affecting broadcasting, cable, film and related areas.

Prerequisite(s): MRTS/CBCM major status.

MRTS 4340 - History of the Documentary

3 hours (3;2)

Overview of the history of the documentary film from 1895 to the present in context of historical and political events of the time. Examination of
the evolution of the style and form, including the impact of production technology on the process.

Prerequisite(s): MRTS/CBCM major status and junior standing.

\section*{MRTS 4350 - Film Authors}

3 hours (3;0;3)

Examines film art from the point of its authorial creation. Rotating topics may include the work of specific film directors, screenwriters or producers.

Prerequisite(s): MRTS/CBCM major status, MRTS 3610.

MRTS 4360 - International Communication

3 hours
Study of mass communication throughout the world, with special attention to press and media systems, the sources and flow of international news, and problems of world communication.

Prerequisite(s): MRTS/CBCM major status.

\section*{MRTS 4400 - Advanced Film Production}

3 hours (2;3)

Techniques of planning and production; production of a film project.
Prerequisite(s): MRTS majors only and MRTS 4140.

MRTS 4410 - Media Studies Topics

3 hours

Rotating topics. Representative topics include silent films, ethnicity and American film, and contemporary TV.

Prerequisite(s): MRTS/CBCM major status, MRTS 3610.
May be repeated for credit as topics vary.

\section*{MRTS 4411 - Video Production Topics}

3 hours

Rotating topics in video production. Representative topics include documentary production and music for television production.

Prerequisite(s): Prerequisites vary with topic, but include MRTS/CBCM major status, MRTS 2210 and consent of department.

May be repeated for credit as topics vary.

\section*{MRTS 4412 - Film Production Topics}

3 hours

Rotating topics in film production. Representative topics include lighting for cinematography and directing for film.

Prerequisite(s): Prerequisites vary with topic, but include MRTS major status, MRTS 2210 and consent of instructor.

May be repeated for credit as topics vary.

\section*{MRTS 4413 - Audio Production Topics}

3 hours

Rotating topics in audio production. Representative topics include music for film and television and digital audio effects.
Prerequisite(s): Prerequisites vary with topic, but include MRTS/CBCM major status and consent of instructor.

May be repeated for credit as topics vary.

\section*{MRTS 4415 - Topics in Film and Television Genres}

3 hours

Rotating topics such as the western, the television sitcom, science fiction and horror films, Hollywood musicals and others.

Prerequisite(s): MRTS/CBCM major status and MRTS 3610.

May be repeated for credit as topics vary.

\section*{MRTS 4420 - Electronic Media Programming}

3 hours

Theories and strategies of program selection, scheduling and evaluation for electronic media.
Prerequisite(s): MRTS/CBCM major status.

\section*{MRTS 4430 - Electronic Media Management}

\section*{3 hours}

Provides an understanding of the many tasks and duties involved in electronic media management by focusing on 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.

\section*{MRTS 4440 - Electronic Media Sales}

3 hours (3;2)
Economics, standards and ethics of advertising in the electronic media, including the use of broadcast research to develop an advertising campaign.

Prerequisite(s): MRTS/CBCM major status and consent of department.

\section*{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.

\section*{Prerequisite(s): MRTS/CBCM major status.}

\section*{MRTS 4450 - Topics in Industry Studies}

3 hours

Rotating topics in media industry studies.

Prerequisite(s): Prerequisites vary with topic, but include MRTS/CBCM major status and consent of department.
May be repeated for credit as topics vary.

\section*{MRTS 4455 - Ethical Decision-Making in the Media}

3 hours
Examines ethical questions and dilemmas faced by today's journalists and other media practitioners, with a strong emphasis on how to implement and use an effective ethical decision-making process in the newsroom. Includes extensive use of case studies, class discussions, role playing, research and writing.

Prerequisite(s): MRTS/CBCM major status.

MRTS 4460 - 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 and MRTS 2010.

\section*{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): Prerequisites vary with topic, but include MRTS/CBCM major status, consent of department, and MRTS 2010.

May be repeated for credit as topics vary.

MRTS 4475 - 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, privacy, intellectual property and ethics.

Prerequisite(s): MRTS/CBCM major status or consent of department.

\section*{MRTS 4480 - Internship in Media Arts}

1-3 hours

Supervised off-campus work experience in a job that relates to student's career objective.

Prerequisite(s): MRTS major status, junior or senior classification with a minimum of 12 hours completed in the major including MRTS 2210; or CBCM major status, junior or senior classification with a minimum of 15 hours completed in the major including CBCM 3500. Both majors require a 2.75 GPA , meet employer's requirements and receive consent of department.

May be repeated for credit; however, no more than 6 hours of total credit for MRTS 3482, MRTS 3483, MRTS 3501, 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.

\section*{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 120minute script.

Prerequisite(s): MRTS/CBCM major status, MRTS 2010 and consent of department.

\section*{MRTS 4510 - Corporate Media}

3 hours

Theory and uses of film, video and multimedia in business and industry.

Prerequisite(s): MRTS/CBCM major status and MRTS 3220 or MRTS 3230, or consent of department.

\section*{MRTS 4520 - African-American Film}

3 hours

Examines the representations of African-American characters and concerns throughout the history of American film.
Prerequisite(s): MRTS/CBCM major status and MRTS 3610.

\section*{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 and MRTS 3610.

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 and MRTS 3610.

\section*{MRTS 4550 - Cinema and Video Verite}

3 hours

Examines the development of this major style in documentary film and video, 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 and MRTS 3610.

\section*{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 and MRTS 3210; MRTS 3650 preferred.

\section*{MRTS 4670 - Media Economics}

3 hours

Analysis of the economic aspects of the media industries, particularly film, television and other industries; accomplished through readings, inclass discussions and individual projects.

Prerequisite(s): MRTS/CBCM major status.

\section*{MRTS 4740 - Theories and Techniques of Visual Editing}

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 and MRTS 3230.

\section*{MRTS 4750 - Advanced Video Production}

3 hours (2;3)

Advanced directing, postproduction editing, producer responsibilities and creative programs.

Prerequisite(s): MRTS/CBCM major status and MRTS 3220.

\section*{MRTS 4760 - Documentary Preproduction}

3 hours

The design of documentary productions of all types, in both film and video. Topics include the selection of subjects, research techniques, proposal writing, location scouting, funding and budgeting. Several case histories are examined and excerpts from a variety of documentary productions are screened.

Prerequisite(s): MRTS/CBCM major status and MRTS 3230.

\section*{MRTS 4810 - Directing Narrative Media}

3 hours

Major theories and skills needed to direct narrative film and video.
Prerequisite(s): MRTS/CBCM major status and MRTS 3220, MRTS 3230, and consent of instructor.

\section*{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 and MRTS 1320, MRTS 3220 and MRTS 3230.

\section*{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 and MRTS 2210.

\section*{MRTS 4900 - Special Problems}

1-3 hours

Problem must be approved by department chair.

Prerequisite(s): MRTS/CBCM major status and consent of department.
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.

\section*{MRTS 4910 - Special Problems}

1-3 hours

Problem must be approved by department chair.
Prerequisite(s): MRTS/CBCM major status, MRTS 2210 and consent of department.
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.

\section*{MRTS 4911 - Special Problems in Video Production}

\section*{\(1-3\) 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, consent of faculty member and consent of department.
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.

\section*{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, consent of faculty member and consent of department.
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.

\section*{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, consent of faculty member and consent of department.
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.

\section*{MRTS 4914 - Special Problems in Advanced Film Production}

3 hours
Individual study topics in advanced film production. Designed for students who have previously completed MRTS 4400.

Prerequisite(s): MRTS major status, MRTS 4400 and consent of department.
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.

\section*{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.

\section*{Merchandising}

\section*{MDSE 2040 - Visual Merchandising}

3 hours (2;2)

Study and application of display principles as related to visual merchandising. Development of individualized plans for store set-up and plan-ograms.

Prerequisite(s): MDSE 2490 or HFMD 2400.

MDSE 2350 - Product Development I

3 hours

Comprehensive overview of apparel product development, including researching and interpreting fashion direction, analyzing comparable market offerings, and developing color, style and fabric trends. Customer conversion, revenue optimization, global collaboration, and selling innovation are explored.

Prerequisite(s): None.

\section*{MDSE 2490 - Introduction to Retail Merchandising}

3 hours

Survey of the retail industry including development, merchandising and distribution of apparel products. Introduction to terminology, resources, industry participants and career opportunities.

Prerequisite(s): None.

MDSE 2650 - Textiles for Apparel

3 hours

Fibers, fabric, construction and finishes applied to selection, use and care of apparel fabrics.
Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

Core Category: Component Area Option or Social and Behavioral Sciences

MDSE 3250 - Product Development II

3 hours (2;2)

Analysis of the apparel production process, including quality issues relative to development and production of ready-to-wear apparel. Concepts include apparel components, sizing, costing and production planning.

Prerequisite(s): MDSE 2350.

MDSE 3350 - Historic and Contemporary Styles of Apparel

3 hours

Survey of costume from the 16th century to the present. Emphasis on technological, cultural and social influences on historic and contemporary styles.

Prerequisite(s): Junior standing.

MDSE 3370-Fashion Theory and Trend Analysis

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.

Prerequisite(s): Junior standing.

\section*{MDSE 3510 - Profit-Centered Merchandising}

3 hours (3;1)
Introduction to buying, merchandising planning and control, and pricing.

Prerequisite(s): Major in merchandising, home furnishings merchandising or digital retailing and ACCT 2010.

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 HFMD 2655 (may not be taken concurrently).

\section*{MDSE 3750-Consumer Studies}

3 hours

Exploration of motivations influencing consumer purchase and use of apparel and home furnishing products. 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.

Prerequisite(s): None.

\section*{MDSE 3850 - Promotions}

\section*{3 hours}

Promotion of apparel and home furnishings throughout production and distribution systems. Emphasis on promotion media, special events and computer applications.

Prerequisite(s): MDSE 3750 (may be taken concurrently).

\section*{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): DRTL 2090, HFMD 2400, or MDSE 2490, approval of application, good standing and consent of school.

\section*{MDSE 4002 - Dallas Study Tour for Merchandising and Digital Retailing}

3 hours
Experience merchandising industries through visits to manufacturing facilities, retail establishments, museums, historical structures, and industry support organizations in and around Dallas. Students may get program credit for up to two study tour classes.

Prerequisite(s): DRTL 2090, HFMD 2400, or MDSE 2490, approval of application, good standing and consent of school.

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): DRTL 2090, HFMD 2400, or MDSE 2490, approval of application, good standing and consent of school.

\section*{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): DRTL 2090, HFMD 2400 or MDSE 2490; approval of application, good standing and consent of department.

\section*{MDSE 4010 - Global Sourcing}

3 hours

Overview of textile and apparel industries with emphasis on international issues and factors affecting processes from the production through distribution of textiles and apparel.

Prerequisite(s): Merchandising majors: MDSE 2490, MDSE 2350, MDSE 2650; MATH 1680 or MATH 1681; ENGL 1310 or TECM 1700. Digital Retailing majors: DRTL 2090; MDSE 3250, HFMD 2655, HMGT 2800, or HMGT 2810; JOUR 2000; DSCI 2710; ENGL 1310 or TECM 1700.

MDSE 4020 - E-Passport: Virtual Study Abroad

3 hours

Parallel experiences are provided for resident (e-passport) and study abroad students (passport) who participate in SMHM's study abroad experiences. Collaborative cultural immersion is experienced through authentic experiences, online and personal interactions, and appropriate assignments.

Prerequisite(s): DRTL 2090, HFMD 2400 or MDSE 2490; or consent of instructor.

\section*{MDSE 4080 - Merchandising Ventures}

3 hours
Exploration of the merchandisers' role in establishing new ventures with fashion and home furnishings products. Includes non-traditional merchandising formats.

Prerequisite(s): Merchandising majors: ACCT 2010, MDSE 2490, MDSE 2350, MDSE 2650, MDSE 3510; MATH 1680 or MATH 1681; ENGL 1310 or TECM 1700. Students must have earned a C or better in all prerequisite courses.
Home Furnishings majors: ACCT 2010, HFMD 2380, HFMD 2400, HFMD 2655, MDSE 3510; MATH 1680 or MATH 1681; ENGL 1310 or TECM 1700. Students must have earned a C or better in all prerequisite courses.

Digital Retailing majors: ACCT 2010, DRTL 2090; MDSE 3250, HFMD 2655, HMGT 2800, or HMGT 2810; MDSE 3510; JOUR 2000; DSCI 2710; ENGL 1310 or TECM 1700 . Students must have earned a grade of C or better in all prerequisite courses.

MDSE 4510 - Advanced Buying, Planning and Allocation

3 hours

In-depth study of planning, buying and distributing merchandise to retail stores.

Prerequisite(s): Merchandising majors: ACCT 2010 , MDSE 2490, MDSE 2350, MDSE 2650, MDSE 3510; MATH 1680 or MATH 1681; ENGL 1310 or TECM 1700. Students must have earned a C or better in all prerequisite courses.
Home Furnishings majors: ACCT 2010, HFMD 2380, HFMD 2400, HFMD 2655, MDSE 3510; MATH 1680 or MATH 1681; ENGL 1310 or TECM 1700. Students must have earned a C or better in all prerequisite courses.

Digital Retailing majors: ACCT 2010, DRTL 2090; MDSE 3250, HFMD 2655, HMGT 2800, or HMGT 2810; MDSE 3510; JOUR 2000; DSCI 2710; ENGL 1310 or TECM 1700. Students must have earned a grade of C or better in all prerequisite courses.

\section*{MDSE 4560 - Sustainable Strategies in Merchandising}

3 hours
Comprehensive application of sustainability practices for product development and retail design in apparel and home furnishings enterprises.

Prerequisite(s): MDSE 2490, DRTL 2090, or HFMD 2400.

MDSE 4660 - Advanced Application

3 hours

Capstone course requiring 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): MDSE 2490; MDSE 3510; MDSE 3750; MDSE 4010; plus 9 additional hours in major with a grade of C or better; major in merchandising.

\section*{MDSE 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{MDSE 4910 - Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{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.

\section*{Merchandising, Hospitality and Tourism}

\section*{CMHT 2790 - Career Development}

3 hours

Examines the impact of business environments on personal and career effectiveness in the hospitality, retail and merchandising fields. Topics include effective business communication, ethical decision making and leadership development.

Prerequisite(s): HMGT 1500, DRTL 2090, HFMD 2400, or MDSE 2490 (prerequisite may be taken concurrently).

\section*{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.

\section*{CMHT 3450-Presentation Techniques}

3 hours (2;3)

Development and improvement of professional presentation skills through planning, presenting and evaluating presentations. Refinement of written and oral communication techniques needed by professionals.

Prerequisite(s): Advanced standing.

\section*{CMHT 3950 - Creating Consumer Experiences}

3 hours

Exploration of the dynamic merging of retail merchandising, hospitality, and entertainment industries to create total consumer experiences. Topics include evolution of consumption, symbolic consumption, ritual consumption, sensory consumption, consumer efficiency; entertainment, thematic, lifestyle and value experiences; branding, brand extension and strategic alliance; and global experiential retailing.

Prerequisite(s): None.

\section*{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 only be taken once for Honors College credit.

\section*{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): DRTL 2090, HFMD 2400, HMGT 1500 or MDSE 2490, approval of application, good standing and consent of college.

Credit varies depending upon length of field study and destination. No more than 3 hours of field study may be used to fulfill degree requirements.

\section*{CMHT 4750 - Managing a Diverse Workforce}

\section*{3 hours}

Workforce diversity provides strength in the current global business environment. Investigates the concepts, policies and practices facing professionals in the global workplace. Effective workplace interactions result when personnel hold a global perspective that incorporates an appreciation and understanding of human diversity. Personnel who perceive themselves as global employees are a critical element in business success. Managing a diverse workforce requires working effectively with people who vary by nationality, ethnicity, culture, religion, gender, language, age, abilities and unique personal characteristics. This diverse workforce may be employed in one locale, region or nation, or it may span several countries or the world.

Prerequisite(s): Senior standing.

Course is open to students in any major, and is to be taken during last year of course work.

\section*{CMHT 4790 - Internship in Merchandising and Hospitality Management}

3 hours

Hospitality management majors: 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, experiential activities and scheduled lecture times on campus. 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. All students must attend a pre-internship orientation the semester prior to enrolling in CMHT 4790.
Merchandising, home furnishings merchandising and digital retailing majors: 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 four additional classes during either long term/semester (fall/spring). During the combined summer sessions, students may not be enrolled in more 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): Hospitality management majors: hospitality management with senior standing, minimum overall GPA of 2.50, CMHT 2790, completion of 500 documented work hours in the hospitality industry prior to enrolling in CMHT 4790 and consent of instructor; must take CMHT 4790 in the last semester of course work.

Merchandising, home furnishings merchandising and retailing majors: merchandising, home furnishings merchandising or retailing majors with advanced standing in major, MDSE 3510, CMHT 2790, plus 24 additional hours in required major courses (not program electives) with a grade of C or better, minimum overall GPA of 2.50 , and consent of instructor.

Digital retailing majors: major in digital retailing with advanced standing in major, MDSE 3510, CMHT 2790, plus 24 additional hours in required major courses (not program electives) including DRTL 2080 and DRTL 4070 with a grade of C or better, minimum overall GPA of 2.50, and consent of instructor.

\section*{CMHT 4800 - Discovery: Research in Merchandising and Hospitality Management}

\section*{3 hours}

Introduction to research methods for scientific inquiries in the fields of merchandising and hospitality management. May include individual or collaborative investigation of selected topics relevant to the field of study.

Prerequisite(s): Advanced standing in the major; GPA of 2.75; merchandising, digital retailing, home furnishings merchandising, or hospitality management major or consent of instructor.

\section*{Middle School Education}

\section*{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.

\section*{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.

\section*{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.

\section*{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.

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.

\section*{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.

\section*{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.

Prerequisite(s): Successful completion of early student teaching and current placement in a field site for student teaching.

Corequisite(s): Must be taken concurrently with student teaching.
Required for student teaching.

\section*{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.

\section*{Military Science}

\section*{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.

Prerequisite(s): None.

\section*{MILS 1142 - Introduction to Leadership}

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

Uniform and equipment provided, no fee. May be repeated for credit.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

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.

\section*{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.

\section*{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.

Prerequisite(s): None.

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.

\section*{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.

\section*{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.

\section*{MILS 3443 - Leadership Development Assessment Course}

\section*{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.

Prerequisite(s): MILS 3341, MILS 3342.
Open only to students who have successfully completed MILS 3341 and MILS 3342, Pass/no pass only.

\section*{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.

\section*{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.

\section*{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.

\section*{Music Applied Private Lessons (Concentration)}

\section*{MUAC 1501 - Piano}

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

MUAC 1502 - Organ

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

MUAC 1503 - Voice
\(1-3\) hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

\section*{MUAC 1504 - Violin}
\(1-3\) hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

MUAC 1505-Viola

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 1506 - Cello}

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 1507 - Double Bass}
\(1-3\) hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 1508 - Flute}

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

MUAC 1509-Oboe

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 1511 - Clarinet}

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.
Prerequisite(s): None.

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.

MUAC 1513-Bassoon

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

\section*{MUAC 1514 - French Horn}

1-3 hours
Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 1516 - Trumpet}

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.
Prerequisite(s): None.

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.

\section*{MUAC 1517 - Trombone}

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 1518 - Euphonium}

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

MUAC 1519-Tuba

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

\section*{MUAC 1521 - Percussion}

1-3 hours
Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

MUAC 1522 - Harp

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.
Prerequisite(s): None.

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.

\section*{MUAC 1526-Jazz Guitar}

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

\section*{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.

\section*{MUAC 1528-Harpsichord}

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 1532 - Jazz Piano}

1-3 hours

Lower-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 3501 - Piano}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 3502-Organ}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 3503 - Voice}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 3504 - Violin}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

MUAC 3505-Viola

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

\section*{MUAC 3506 - Cello}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

MUAC 3507 - Double Bass

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.
Prerequisite(s): None.

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.

\section*{MUAC 3508 - Flute}
\(1-3\) hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{1-3 hours}

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 3511 - Clarinet}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 3512 - Saxophone}

\section*{1-3 hours}

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

MUAC 3513-Bassoon

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 3514 - French Horn}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.
Prerequisite(s): None.

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.

\section*{MUAC 3516 - Trumpet}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

MUAC 3517 - Trombone

1-3 hours
Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

\section*{MUAC 3518 - Euphonium}

1-3 hours
Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 3519-Tuba}
\(1-3\) hours

Upper-level applied music, private lessons. Variable credit for concentrations.
Prerequisite(s): None.

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.

\section*{MUAC 3521 - Percussion}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

MUAC 3522 - Harp
\(1-3\) hours
Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

\section*{MUAC 3526-Jazz Guitar}

1-3 hours
Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

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.

\section*{MUAC 3528 - Harpsichord}

\section*{\(1-3\) hours}

Upper-level applied music, private lessons. Variable credit for concentrations.
Prerequisite(s): None.

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.

\section*{MUAC 3531 - Jazz Piano}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.
Prerequisite(s): None.
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.

\section*{MUAC 3532 - Jazz Saxophone}

1-3 hours
Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.
Prerequisite(s): None.

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.

MUAC 3536-Jazz Trumpet

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.
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.

\section*{MUAC 3537-Jazz Trombone}

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): None.

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.

MUAC 3538-Jazz Bass

1-3 hours

Upper-level applied music, private lessons. Variable credit for concentrations.
Prerequisite(s): None.

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.

MUAC 3539-Jazz Composition and Arranging

1-3 hours

Upper level applied music, private lessons. Variable credit for concentrations.

Prerequisite(s): Consent of instructor.

\section*{Music Applied Private Lessons (Major)}

MUAM 1501 - Piano

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

MUAM 1502-Organ
\(1-5\) hours

Lower-level applied music, private lessons. Variable credit for majors.
Prerequisite(s): None.

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.

\section*{MUAM 1503 - Voice}

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.
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.

\section*{MUAM 1504 - Violin}

1-5 hours
Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

MUAM 1505-Viola

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 1506 - Cello}

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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

\section*{MUAM 1507 - Double Bass}

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 1508 - Flute}

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

MUAM 1509-Oboe
\(1-5\) hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

MUAM 1511 - Clarinet

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.
Prerequisite(s): None.

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.

\section*{MUAM 1513-Bassoon}

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.
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.

\section*{MUAM 1514 - French Horn}

1-5 hours
Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

MUAM 1516 - Trumpet

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.
Prerequisite(s): None.

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.

\section*{MUAM 1517-Trombone}

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 1518 - Euphonium}

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 1519-Tuba}
\(1-5\) hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.
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.

\section*{MUAM 1521 - Percussion}
\(1-5\) hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

MUAM 1522-Harp

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.
Prerequisite(s): None.

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.

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.

\section*{MUAM 1528-Harpsichord}

1-5 hours

Lower-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 3501 - Piano}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.
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.

\section*{MUAM 3502-Organ}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 3503 - Voice}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.
Prerequisite(s): None.

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.

\section*{MUAM 3504-Violin}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 3505-Viola}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 3506-Cello}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 3507 - Double Bass}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 3508 - Flute}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

MUAM 3509-Oboe

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 3511 - Clarinet}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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

\section*{\(1-5\) hours}

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 3513-Bassoon}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 3514 - French Horn}

1-5 hours
Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

MUAM 3516 - Trumpet

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.
Prerequisite(s): None.

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.

\section*{MUAM 3517-Trombone}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.
Prerequisite(s): None.

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.

\section*{MUAM 3518 - Euphonium}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.
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.

MUAM 3519- Tuba
\(1-5\) hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.
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.

\section*{MUAM 3521 - Percussion}

\section*{1-5 hours}

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{MUAM 3522 - Harp}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.
Prerequisite(s): None.

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.

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.

\section*{MUAM 3528-Harpsichord}

1-5 hours

Upper-level applied music, private lessons. Variable credit for majors.

Prerequisite(s): None.

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.

\section*{Music Applied Private Lessons (Secondary)}

\section*{MUAS 1501 - Piano}

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 1502-Organ

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 1503 - Voice

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 1504 - Violin

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 1505 - Viola

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 1506-Cello

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.
Prerequisite(s): None.

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.

\section*{MUAS 1507 - Double Bass}

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.
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.

\section*{MUAS 1508 - Flute}

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 1509-Oboe

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.
Prerequisite(s): None.

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.

MUAS 1511 - Clarinet

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{1-2 hours}

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 1513-Bassoon

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 1514 - French Horn}

\section*{1-2 hours}

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 1516 - Trumpet}

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 1517 - Trombone}

\section*{1-2 hours}

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 1518 - Euphonium}

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.
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.

MUAS 1519-Tuba

1-2 hours
Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.
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.

\section*{MUAS 1521 - Percussion}

1-2 hours
Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 1522-Harp

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.
Prerequisite(s): None.

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.

\section*{MUAS 1524 - Vocal Coaching}

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 1526-Jazz Guitar}

1-2 hours
Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{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.

\section*{MUAS 1528 - Harpsichord}

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 1529-Organ Service Playing}

\section*{1-2 hours}

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 1531 - Keyboard Continuo Playing}

1-2 hours

Lower-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3501 - Piano}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3502-Organ}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 3503 - Voice

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3504 - Violin}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 3505-Viola

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 3506-Cello

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{1-2 hours}

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 3508 - Flute

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3509-Oboe}

\section*{1-2 hours}

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 3511 - Clarinet

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3512-Saxophone}

\section*{1-2 hours}

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3513-Bassoon}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3514 - French Horn}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.
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.

\section*{MUAS 3516 - Trumpet}

\section*{1-2 hours}

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

MUAS 3517-Trombone

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.
Prerequisite(s): None.

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.

\section*{MUAS 3518 - Euphonium}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3519-Tuba}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3521 - Percussion}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3522-Harp}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3523 - Functional Piano}

\section*{1-2 hours}

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3524-Vocal Coaching}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3527-Guitar}

\section*{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.

\section*{MUAS 3528 - Harpsichord}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{MUAS 3529-Organ Improvisation}
\(1-2\) hours ( \(0 ; 0 ; 0.5\) )

Upper-level applied music, private lessons. Variable credit for secondaries. Improvisation of binary, ternary, variation sets, scherzos. Themes drawn from choral and plainsong repertoire.

Prerequisite(s): MUAG 4720 or consent of college.

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.

\section*{MUAS 3531 - Keyboard Continuo Playing}

1-2 hours

Upper-level applied music, private lessons. Variable credit for secondaries.

Prerequisite(s): None.

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.

\section*{Music Composition}

MUCP 1180 - Beginning Composition 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 1500MUTH 1510.

MUCP 1190 - Beginning Composition II

2 hours (2;0)
Continuation of MUCP 1180.

Prerequisite(s): MUCP 1180. MUTH 1500-MUTH 1510 (may be taken concurrently).

MUCP 2080 - Secondary Composition I

1-2 hours (1;0)

Writing small works in contemporary styles.
Prerequisite(s): MUCP 1190. Consent of college.

May be repeated for credit, contingent on a grade of B or better. Primarily for non-composition majors.

MUCP 2180 - Intermediate Composition I

1-2 hours (1;0)
Writing in small forms for simple media in contemporary styles.

Prerequisite(s): MUCP 1180 and MUCP 1190 (with grades of B or better); MUTH 1400, MUTH 1410, MUTH 1500 and MUTH 1510 (with a grade of B or better); acceptance at the concentration level on an instrument or voice.

For composition majors only.

MUCP 2190 - Intermediate Composition II
\(1-2\) hours \((1 ; 0)\)

Continuation of MUCP 2180. Sophomore composition jury required at the end of the term/semester.
Prerequisite(s): MUCP 2180 (with a grade of B or better); MUTH 2400 and MUTH 2410 (with a grade of B or better).

For composition majors only.

MUCP 2900-Special Problems

1-3 hours

Prerequisite(s): Consent of college.

\section*{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.

MUCP 3080-Class Composition

3 hours

Beginning problems in composition; composition and study of contemporary styles and techniques.

Prerequisite(s): MUTH 2500, MUTH 2510.

For non-composition majors.

MUCP 3090 - Class Composition II

3 hours (2;1)

Continuation of MUCP 3080.

Prerequisite(s): MUCP 1180 or MUCP 3080, MUTH 2500 and MUTH 2510 or consent of instructor.

For non-composition majors.

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 a grade of B or better); MUTH 2500 and MUTH 2510 (with a grade of B or better); consent of college following sophomore composition jury.

For composition majors only.

\section*{MUCP 3190 - Advanced Composition II}

2-3 hours (0;3)

Continuation of MUCP 3180.

Prerequisite(s): MUCP 3180 (with a grade of B or better).

For composition majors only.

MUCP 4080 - Secondary Composition II

2-3 hours (3;0)

Writing small works in contemporary styles.

Prerequisite(s): MUCP 2080 or MUCP 3080, or equivalent.

For non-composition majors. May be repeated for credit, contingent on a grade of B or better.

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.

MUCP 4195 - Senior Composition Recital Capstone

3 hours (1;0;2)

Continuation of MUCP 4180. Production of senior composition recital.
Prerequisite(s): MUCP 4180 (with a grade of B or better) and consent of college following the senior recital hearing. Successful completion of the Upper Division Exam (UDE).

Individual instruction.

\section*{MUCP 4310 - 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 3080 (with a grade of B or better); or consent of college.

\section*{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 4310 (with a grade of B or better) and MUCP 2190, or equivalent.

Meets with MUCP 5320.

Primarily for composition majors.

\section*{MUCP 4460-Contemporary Music}

3 hours

Study of recent music emphasizing experimental compositional techniques. Listening, score study and analysis.

Prerequisite(s): MUTH 2500, MUTH 2510 and MUMH 3510, or consent of college.

MUCP 4590 - Intermedia Performance Arts

\section*{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

MUCP 4670 - 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 hours of composition or consent of college.

\section*{MUCP 4680 - History and Technology of Electroacoustic Music}

3 hours (3;1)

Study of synthesis and audio processing, both historically and in current practice. Course projects focus on electroacoustic music applications, practical exercises, and original compositions.

Prerequisite(s): MUCP 4670 or equivalent.

Meets with MUCP 5680.

May be repeated for credit, contingent on a grade of \(B\) or better.

\section*{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.

\section*{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.

\section*{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.

\section*{Music Education}

\section*{MUED 1130 - Foundations in Music}
(MUSI 1304)

1 hour (2;0)

Development of musical concepts and skills in listening and performance through use of elementary school music program materials and activities.

Prerequisite(s): None.

\section*{MUED 2310 - Musicianship for Teaching I}

2 hours (2;0)

Overview of foundational principles in music education. Explores these principles in terms of the skills, characteristics and attributes of the musician teacher.

Prerequisite(s): None.
A prerequisite for Musicianship for Teaching II and III.

\section*{MUED 2900-Special Problems}

1-3 hours

Prerequisite(s): Consent of college.

\section*{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.

\section*{MUED 3100-Musicianship for Teaching II}

3 hours (3;0)

Comprehensive study of musical elements, structures, forms, genres and exemplary literature as related to basic principles of child development. Explores instruction of the child in terms of the skills, characteristics and attributes of the musician teacher.

Prerequisite(s): MUED 2310 or consent of college.

\section*{MUED 3200 - Musicianship for Teaching III}

3 hours

Teaching methods and responsibilities common to choral and instrumental instruction in secondary schools. Covers such aspects as psychology of young adults, recruitment procedures, rehearsal management, concert programming, performance preparation, fund raising and adjudicated events, as well as furthering the musical and instructional development of the musician teacher.

Prerequisite(s): MUED 2310 and MUED 3100 or consent of college.

\section*{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, Kodaly, Dalcroze and eclectic). Principles of sequentially organized materials and activities for the young learner in general music.

Prerequisite(s): MUED 2310 and MUED 3100, or consent of college.

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 2310, MUED 3100, MUED 3200 and MUAG 3800. As applicable: MUAG 1102-MUAG 1202, MUAG 1117, MUAG 1121-MUAG 1221 and MUAG 1125-MUAG 1225 and MUAG 1224, or consent of college.

\section*{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 2310, MUED 3200 and MUAG 3820 or consent of college. MUAG 3820 may be taken concurrently with MUED 4203.

\section*{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 3200. 7 credit hours from MUAG 1102, MUAG 1117, MUAG 1121, MUAG 1125, MUAG 1202, MUAG 1221, MUAG 1224 and MUAG 1225.

\section*{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.

\section*{MUED 4910 - Special Problems}

\section*{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.

\section*{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.

\section*{Music Ensembles}

MUEN 2602 - Brass Ensembles

1 hour ( \(0 ; 3\) )
Prerequisite(s): None.
May be repeated for credit.

\section*{MUEN 2605 - Chamber Wind Ensemble}

1 hour (0;3)

Prerequisite(s): None.

Admission by audition only. May be repeated for credit.

MUEN 2611 - Jazz Ensembles

1 hour (0;2)

Prerequisite(s): None.

May be repeated for credit.

MUEN 2621 - String Ensembles

1 hour (0;2)

Prerequisite(s): None.
May be repeated for credit.

\section*{MUEN 2624 - Vocal Ensembles}

1 hour ( \(0 ; 3\) )

Prerequisite(s): None.

Admission by audition only. May be repeated for credit.

MUEN 2625 - Wind Ensembles

1 hour (0;2)
Prerequisite(s): None.

May be repeated for credit.

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.

Prerequisite(s): None.
May be repeated for credit.

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.
Prerequisite(s): None.
May be repeated for credit.

MUEN 4530 - 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.

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.

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.

MUEN 4595 - Intermedia Performance Arts

1 hour ( \(0 ; 3\) )

Performance component of MUCP 4590, to be taken concurrently.
Prerequisite(s): None.

May be repeated for credit.

\section*{Music History and Literature, Musicology}

\section*{MUMH 1600 - Music in Human Imagination}
(MUSI 1307)
3 hours

Introduction to critical issues in music from a multicultural perspective with emphasis on developing listening skills and critical thinking.

Prerequisite(s): None.

Open to majors in other fields. Must be taken prior to MUMH 3500-MUMH 3510.

Core Category: Component Area Option

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.

Prerequisite(s): None.

For non-music majors.
Core Category: Creative Arts

MUMH 2900-Special Problems

1-3 hours

Prerequisite(s): Consent of college.

MUMH 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.

MUMH 3000 - Nineteenth-Century Music

3 hours

Music in romantic humanism; lectures, recordings, art works and live performances.

Prerequisite(s): None.

For non-music majors.

\section*{Core Category: Creative Arts \\ MUMH 3010-Twentieth-Century Music}

3 hours

Music since Impressionism; changing currents in culture and society. Lectures, recordings, art works and live performances.

Prerequisite(s): None.
For non-music majors.
Core Category: Creative Arts

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 1600.
Core Category: Creative Arts

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 1600
Core Category: Creative Arts

MUMH 4050 - Symphonic Literature

3 hours

Historical overview of the symphony as a genre from Haydn to the present; emphasis on skills for recognizing and analyzing symphonic genres and forms through score study and listening.

Prerequisite(s): MUMH 3500, MUMH 3510.

MUMH 4070-Operatic Literature

3 hours

Historical overview of Western opera; emphasis on skills for recognizing and analyzing operatic styles and genres from both the musical and dramatic perspectives.

Prerequisite(s): MUMH 3500, MUMH 3510.

MUMH 4760-Chamber Music Literature

3 hours

Chamber music from the Baroque to the present.
Prerequisite(s): MUMH 3500, MUMH 3510.

\section*{MUMH 4770-Masterpieces of Choral Literature}

3 hours
Choral masterpieces from the Renaissance to the present.

Prerequisite(s): MUMH 1600.

MUMH 4780 - American Music

3 hours

Music of American composers from colonial times to the present.

Prerequisite(s): MUMH 1600.

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.
Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

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.

\section*{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.

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 1600, MUMH 3500, MUMH 3510.

\section*{MUMH 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.

\section*{Music Laboratories}

MULB 1801 - A Cappella Choir

1 hour (0;5)
Prerequisite(s): None.
May be repeated for credit.

MULB 1802 - Concert Choir

1 hour (0;5)

Prerequisite(s): None.

May be repeated for credit.

MULB 1803 - Women's Chorus

1 hour (0;5)
Prerequisite(s): None.

May be repeated for credit.

MULB 1805-Orchestra

1 hour (0;6)

Prerequisite(s): None.
May be repeated for credit.

MULB 1806 - Wind Symphony

1 hour ( \(0 ; 4\) )

Prerequisite(s): None.

May be repeated for credit.

MULB 1807 - Symphonic Band

1 hour (0;4)
Prerequisite(s): None.

May be repeated for credit.

MULB 1808-Jazz Lab Band

1 hour (0;4)

Prerequisite(s): None.

May be repeated for credit.

MULB 1811 - Accompanying

1 hour (0;4)
Studio accompanying or sight-reading classes according to capability.

Prerequisite(s): None.
May be repeated for credit.

MULB 1812 - Marching Band

1 hour ( \(0 ; 4\) )
Prerequisite(s): None.

May be repeated for credit.

MULB 1813 - Concert Band

1 hour (0;4)

Prerequisite(s): None.
May be repeated for credit.

MULB 1815 - Men's Chorus

1 hour (0;5)

Prerequisite(s): None.

May be repeated for credit.

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.

Prerequisite(s): None.

May be repeated for credit.

MULB 1817 - Jazz Guitar Laboratory

1 hour (0;4)
Prerequisite(s): None.
May be repeated for credit.

1 hour ( \(0 ; 4\) )

Prerequisite(s): None.
May be repeated for credit.

MULB 1819-Jazz Keyboard Laboratory

1 hour ( \(0 ; 4\) )

Prerequisite(s): None.

May be repeated for credit.

MULB 1820-Jazz Singers Laboratory

1 hour (0;4)

Prerequisite(s): None.
May be repeated for credit.

MULB 1821 - Latin Jazz Lab

1 hour ( \(0 ; 4\) )

Prerequisite(s): None.

May be repeated for credit.

\section*{Music Theory}

\section*{MUTH 1300 - Exploration 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.

Prerequisite(s): None.

\section*{MUTH 1350 - Exploration 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.

MUTH 1400 - Theory I
(MUSI 1211 or MUSI 1311)

2 hours (2;0)

Large-lecture format. Introduction to analysis, part writing, figured bass realization, and harmonization beginning with melody and two-part exercises.

Prerequisite(s): Limited to current music majors, or with consent of instructor.

Corequisite(s): MUTH 1410.

\section*{MUTH 1410 - Aural Skills I}
(MUSI 1116 or MUSI 1216 or MUSI 1316)

2 hours (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.
Corequisite(s): MUTH 1400

\section*{MUTH 1500 - Theory II}
(MUSI 1212 or MUSI 1312)

2 hours (2;0)

Continuation of analysis, part writing, figured bass realization and harmonization covering harmonic vocabulary of 18th-century music and smaller forms of the Baroque period.

Prerequisite(s): MUTH 1400 and MUTH 1410, both with a grade of C or better.
Corequisite(s): MUTH 1510

\section*{MUTH 1510 - Aural Skills II}
(MUSI 1117 or MUSI 1217 or MUSI 1317)

2 hours (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

\section*{MUTH 2400 - Theory III}
(MUSI 2211 or MUSI 2311)

2 hours (2;1)

Analysis, part writing, figured bass realization and harmonization covering harmonic vocabulary of late eighteenth and nineteenth centuries, larger forms of the Baroque era and form of the Classic and Romantic eras. Computer competency skills are included.

Prerequisite(s): MUTH 1500 and MUTH 1510, both with a grade of C or better.

Corequisite(s): MUTH 2410

\section*{MUTH 2410 - Aural Skills III}
(MUSI 2116 or MUSI 2216)
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

MUTH 2500 - Theory IV
(MUSI 2212 or MUSI 2312)

2 hours \((2 ; 1)\)

Analysis, part writing and harmonization covering musical practice of the period from 1880 to 1950.

Prerequisite(s): MUTH 2400 and MUTH 2410, both with a grade of C or better.

Corequisite(s): MUTH 2510

\section*{MUTH 2510 - Aural Skills IV}
(MUSI 2117 or MUSI 2217)

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

\section*{MUTH 2900-Special Problems}

1-3 hours

Prerequisite(s): Consent of college.

\section*{MUTH 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.

\section*{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.

\section*{MUTH 3420 - Eighteenth-Century Counterpoint}

3 hours

Contrapuntal procedures of 18th-century composers. Writing inventions, chorale preludes and other 18th-century forms.

Prerequisite(s): MUTH 2400 and MUTH 2410, both with a grade of C or better.

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.

\section*{MUTH 3520 - Harmonic Analysis}

3 hours

Harmonic structure of compositions representative of different schools and composers.

Prerequisite(s): MUTH 2400 and MUTH 2410, both with a grade of C or better.

\section*{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.

\section*{MUTH 4520-Twentieth-Century Techniques}

3 hours

Dodecaphonic and atonal set theory techniques as applied to representative works of the 20th century.

Prerequisite(s): MUTH 2500 and MUTH 2510, both with a grade of C or better.

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 as topics vary.

MUTH 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.

\section*{MUTH 4910 - Special Problems}

\section*{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.

\section*{MUTH 4920 - Senior 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.

Prerequisite(s): None.

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.

\section*{Nuclear Engineering Technology}

\section*{NUET 2900-Special Problems \\ 1-4 hours \\ Prerequisite(s): None. \\ 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.

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.

\section*{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.

\section*{NUET 3930 - Radiation Biology and Safety}
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4 hours (3;2)

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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.

\section*{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.

Prerequisite(s): ENGR 2405.

\section*{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 only be taken once for Honors College credit.

\section*{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.

\section*{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.

\section*{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.

\section*{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.

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.

\section*{NUET 4900-Special Problems}

\section*{1-4 hours}

Prerequisite(s): None.

\section*{NUET 4910 - Special Problems}

1-4 hours

Prerequisite(s): None.

\section*{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.

\section*{NUET 4930 - Reactor Engineering Design and Operation}

3 hours
Theory and practice of commercial nuclear reactor operation; includes neutron distribution in space and energy, design of conduction and convective heat transfer systems, and the design of reactor shielding.

Prerequisite(s): NUET 3920, NUET 4050.

\section*{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.

\section*{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.

Prerequisite(s): MEET 3940, MEET 3990, NUET 3910.

\section*{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.

\section*{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.

\section*{Philosophy}

\section*{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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

\section*{PHIL 1400 - Contemporary Moral Issues}
(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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

PHIL 1800 - Philosophy of Self

3 hours

Examination of the nature of the self through a reading of classical and contemporary sources. Topics may include the relation of mind and body; the soul, self and society; non-Western notions of self, freedom and determinism; the unconscious; gender; and race.

Prerequisite(s): None.

Core Category: Component Area Option

PHIL 2050 - Introduction to Logic
(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.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

PHIL 2070-Great Religions
(PHIL 1304)

3 hours

Philosophical and social dimensions of Hinduism, Buddhism, Taoism, Judaism, Christianity, Humanism and Islam. Emphasizes the diversity of religious experience and traditions.

Prerequisite(s): None.
Core Category: Language, Philosophy and Culture

PHIL 2100 - Introduction to Judaism

3 hours

Examines the beliefs, practices, laws and movements of Judaism from Biblical times to the present, emphasizing the impact of modernity on the central texts and traditions.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

PHIL 2310 - Introduction to Ancient Philosophy
(PHIL 2316)

3 hours

Introduction to the worldview of Antiquity through an examination of metaphysical, epistemological and ethical views in Ancient Greek philosophy including the pre-Socratics, Plato and Aristotle.

Prerequisite(s): None.

Core Category: Language, Philosophy and Culture

PHIL 2330 - Introduction to Modern Philosophy
(PHIL 2317)
3 hours (2;0;1)

Examination of metaphysical, epistemological and ethical views in the Modern Period, focusing on the writings of the Rationalists and the Empiricists.

Prerequisite(s): None.

PHIL 2400 - 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.

Prerequisite(s): None.

Core Category: Component Area Option

PHIL 2500 - Introduction to Contemporary Environmental Issues

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.

Prerequisite(s): None.

Core Category: Component Area Option

\section*{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.

Prerequisite(s): None.
Core Category: Language, Philosophy and Culture

PHIL 2900-Special Problems
\(1-3\) hours

Prerequisite(s): None.

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.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

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 pseudoscience, scientific progress, the aims of science, and the role of social and economic values in scientific theories and practices.

Prerequisite(s): None.

PHIL 3260 - Philosophy of Social Science

3 hours

Examination of the methodologies and criteria of knowledge, truth and values in the social sciences. Topics include an analysis of the nature of action, rationality, agency, social meaning and interpretation.

Prerequisite(s): None.

PHIL 3300 - Symbolic Logic

3 hours

Symbolic analysis applied to logical problems, propositional logic, predicate logic and modal logic.
Prerequisite(s): None.

PHIL 3310-Ancient Philosophy

3 hours

Advanced examination of selected philosophical thought from the pre-Socratics through Plotinus including Plato and Aristotle.

Prerequisite(s): None.

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.

Prerequisite(s): None.

PHIL 3330 - Modern Philosophy

3 hours
Advanced examination of selected philosophical thought from the Renaissance to the 19th century including Continental rationalism, British

Empiricism and Kant.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{PHIL 3515 - David, Saul and Solomon: The Early Israelite Monarchy}

3 hours

An overview of the early Israelite monarchy through the biographies of its first three kings: Saul ben Kish, David ben Jesse, and Solomon ben David. Analyzes the rise of the Israelite kingdom in its historic and social milieu using the books of Samuel and I Kings, combined with the most recent translations and archaeological evidence.

Prerequisite(s): None.

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.

Prerequisite(s): None.

PHIL 3525 - Rabbinic Judaism

3 hours
An investigation of the fundamental principles of Jewish law, a system involving the interplay of biblical sources with evolving Rabbinic interpretations and traditions. Focuses on the major figures in the formation of Jewish Law, the core texts, and how it translates its theological insights into a practical working system that is relevant to the worlds of modernity and post-modernity.

\section*{Prerequisite(s): None.}

\section*{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.

Prerequisite(s): None.

PHIL 3535-Classical Jewish Thought: The 13 Principles of Faith

3 hours

Maimonides' Thirteen Principles of Faith has stood the test of time as Judaism's seminal statement of creed. Yet, this formulation aroused both opposition and debate among the leading Jewish philosophers of the medieval era. Explores these Principles in depth, utilizing the original sources of Maimonides, as well as those of Nahmanides, Saadia Gaon, Halevi and other commentators.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{PHIL 3550 - Jewish Business Ethics}

3 hours

Assesses the ethical and social impact management implications in the deployment of business strategy and tactics using a comparative Jewish perspective. Specific attention given to the rights and responsibilities of the firm, consumers, and society. Explores real-world decision-scenarios dealing with ethics, organizational compliance, societal marketing, and social responsibility cast against a backdrop of Jewish value systems.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{PHIL 3620 - South Asian Philosophy and Religion}

3 hours

An examination of South Asian philosophical and religious thought from earliest period in Indian history of the Indus Valley civilization to the religion of the Vedas, through the Upanishads, and classical period in Indian thought including the development of Buddhism and Jainism.

Prerequisite(s): None.

\section*{PHIL 3625 - Modern South Asian Philosophy and Religion}

3 hours

An examination of Medieval to Contemporary South Asian philosophy and religion from Puranic Hinduism, the influence of Islam upon Indian thought, the development of medieval devotional Hinduism, and the origin of the Sikh religion. Explores contemporary Indian philosophy as expressed in the thought of such figures as S. Radhakrishnan, Sri Aurobindo, Tagore, and most particularly Gandhi.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{PHIL 3635-Bollywood}

3 hours

Examination of Indian culture as manifested in the Hindi language film industry known as "Bollywood." Topics include South Asian religions, epics and classical drama, devotional songs, Hindi-Urdu poetry, poverty and urban life, crime, and romance. Course presupposes no previous knowledge of Indic religions or cinema.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{PHIL 3660 - Western Religion and the Environment}

3 hours

Examines the assumptions, values, and attitudes of the Western religious tradition concerning nature and the environment from its Biblical sources and the typical ways these sources have been interpreted in the history of Western religions. Examines the contributions of Christianity, Judaism, and Islamic thought to ecotheology.

Prerequisite(s): None.

\section*{PHIL 3665 - Eastern Religion and the Environment}

3 hours

An examination of non-Western religious traditions for an environmental philosophy geared toward assessing global environmental issues with a focus on South Asian and East Asian philosophical and religious traditions.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

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 only be taken once for Honors College credit.

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.

\section*{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.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

Core Category: Component Area Option

\section*{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.

Prerequisite(s): None.
Core Category: Component Area Option

\section*{PHIL 4300 - 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.

Prerequisite(s): None.

Core Category: Component Area Option

\section*{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.

Prerequisite(s): None.

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; nonWestern conceptions of nature and society.

Prerequisite(s): None.

PHIL 4500 - Existentialism

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{PHIL 4700 - Environmental Ethics}

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

PHIL 4750 - Philosophy and Public Policy

3 hours

Explores how recent developments in moral theory, political philosophy, and philosophy of science and technology can clarify issues in public policy. Topics include the nature of government, the justification and limitations of collective action, the instruments of public policy, democracy and the economy, social costs and benefits, science and technology policy, computers and information policy, food and water policy, and environmental and development policy.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{PHIL 4900 - Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{PHIL 4910 - Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{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.

\section*{PHIL 4960 - Topics in Philosophy}

3 hours

Advanced study of specific figures, themes or problems in philosophy and religion studies.

Prerequisite(s): None.
May be repeated for credit as topics vary each semester.

\section*{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.

PHIL 4975 - Religious Studies Capstone Seminar

3 hours

Seminar on the methods and theories of the study of religions focusing on classic and contemporary texts.

Prerequisite(s): Religious studies major; senior standing and consent of department.

\section*{Physical Education}

PHED 1000 - Scientific Principles and Practices of Health-Related Fitness

3 hours (1;2;1*)
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.

Prerequisite(s): None.
*This hour is independent study using assigned Internet sites to access health-related information and conduct individual health risk assessments.
Core Category: Component Area Option

PHED 1010 - Beginning Swimming

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1030 - Intermediate Swimming

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1040 - Advanced Swimming

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1080 - Diving

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1120-Swim Conditioning

1 hour

Elective activity course.

Prerequisite(s): None.

\section*{PHED 1150-Wrestling}

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1160 - Self-Defense Activities

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1200-Conditioning Exercises

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1210 - Weight Training

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1211 - Intermediate Weight Lifting

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1220-Jogging

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1221 - Walking for Health and Fitness

1 hour

Elective activity course.

Prerequisite(s): None.

\section*{PHED 1230 - Aerobic Dance}

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1240-Cycling

1 hour

Elective activity course.

Prerequisite(s): None.

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.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{PHED 1280 - Folk Dance}

1 hour

Elective activity course.

Prerequisite(s): None.

\section*{PHED 1360 - Social Dance}

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1420 - Country and Western Dance

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1440 - Intermediate Badminton

1 hour
Elective activity course.

Prerequisite(s): None.

PHED 1450 - Archery

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1470 - Beginning Badminton

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1480-Beginning Bowling

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1490 - Intermediate Bowling

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1500 - Beginning Golf

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1510 - Intermediate Golf

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1540 - Handball

1 hour
Elective activity course.

Prerequisite(s): None.

PHED 1570-Beginning Racquetball

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1580 - Outdoor Pursuits

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1590 - Beginning Tennis

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1600 - Intermediate Tennis

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1610 - Advanced Tennis

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1640 - Beginning Fencing

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1650 - Intermediate Fencing

1 hour
Elective activity course.

Prerequisite(s): None.

PHED 1660 - Intermediate Racquetball

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1700 - Women's Beginning Basketball

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1710 - Women's Intermediate Basketball

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1711 - Men's Intermediate Basketball

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1721 - Non-Traditional Sports/Games - Indoor

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1722 - Non-Traditional Sports/Games - Outdoor

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1740 - Women's Soccer

1 hour
Elective activity course.

Prerequisite(s): None.

PHED 1741 - Men's Soccer

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1750 - Softball

1 hour

Elective activity course.

Prerequisite(s): None.

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.

Prerequisite(s): None

PHED 1770 - Touch Football

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1780 - Women's Beginning Volleyball

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1781 - Men's Beginning Volleyball

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 1790 - Women's Intermediate Volleyball

1 hour

Elective activity course.
Prerequisite(s): None.

PHED 1791 - Men's Intermediate Volleyball

1 hour

Elective activity course.

Prerequisite(s): None.

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.

Prerequisite(s): None.

May be repeated for credit.

PHED 1870 - Team Handball

1 hour

Elective activity course.

Prerequisite(s): None.

PHED 2900-Special Problems

1-3 hours

Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

PHED 2910-Special Problems

1-3 hours

Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

\section*{Physics}

\section*{PHYS 1210-Conceptual Physics}
(PHYS 1415)

3 hours (3;3)

Principles and applications of mechanics, heat, sound, light, electricity and atomic physics for the elementary education major.

Prerequisite(s): Interdisciplinary studies (elementary education) major status.

May not use both PHYS 1210 and PHYS 1315 to satisfy a laboratory science requirement.

Core Category: Life and Physical Sciences

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

PHYS 1315 - Introduction to the World of Physics
(PHYS 1410)

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.

Prerequisite(s): None.

Core Category: Life and Physical Sciences

PHYS 1316 - Essential Physics

3 hours (3;3)

Principles and concepts of physics essential to the understanding of modern technological society by the liberal arts major are examined in their cultural context. Topics include Newtonian mechanics, relativity, light, electromagnetic theory, atomic physics, quantum mechanics and nuclear physics. Includes weekly laboratory exercises.

Prerequisite(s): Admission to the Honors College.

PHYS 1410-General Physics I
(PHYS 1301)

3 hours (3;0;1)

Principles and applications of mechanics, sound and heat.

Prerequisite(s): Proficiency in algebra and trigonometry.

Corequisite(s): PHYS 1430.

Non-calculus based physics sequence suitable for life sciences majors and preprofessional students.
Core Category: Life and Physical Sciences

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

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).

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).

PHYS 1510-General Physics I with Calculus

3 hours (3;0;1)

Principles and applications of mechanics, sound and heat.

Prerequisite(s): MATH 1710 (may be taken concurrently), and consent of department.

Corequisite(s): PHYS 1530.

Calculus-based physics sequence suitable for future science teachers and for pre-medicine and other health-related preprofessional students.

Core Category: Life and Physical Sciences

PHYS 1520-General Physics II with Calculus

3 hours (3;0;1)

Principles and applications of electricity, magnetism, light, atomic and nuclear physics.
Prerequisite(s): PHYS 1510.

Corequisite(s): PHYS 1540.

Calculus-based physics sequence suitable for future science teachers and for pre-medicine and other health-related preprofessional students.
Core Category: Life and Physical Sciences

PHYS 1530-General Physics with Calculus Laboratory I

1 hour (0;3)

Laboratory to accompany PHYS 1510.
Prerequisite(s): None.

Corequisite(s): Concurrent enrollment in PHYS 1510.

PHYS 1540-General Physics with Calculus Laboratory II

1 hour (0;3)

Laboratory to accompany PHYS 1520.
Prerequisite(s): None.

Corequisite(s): concurrent enrollment in PHYS 1520.

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.

Corequisite(s): PHYS 1730.
Calculus-based, suitable for physics, engineering, mathematics, computer science and chemistry majors.

Core Category: Life and Physical Sciences

PHYS 1730 - Laboratory in Mechanics
(PHYS 2125)
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1 hour (0;3)
Laboratory to accompany PHYS 1710.
Prerequisite(s): PHYS }1710\mathrm{ (may be taken concurrently).
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.
Prerequisite(s): MATH 1720. PHYS 1420 or PHYS 1710.
Corequisite(s): It is recommended that the course be taken concurrently with PHYS 2240.
Calculus-based, suitable for physics, engineering, mathematics, computer science and chemistry majors.
Core Category: Life and Physical Sciences
PHYS 2240 - Laboratory in Wave Motion, Electricity, Magnetism and Optics
(PHYS 2126)
1 hour (0;3)
Laboratory to accompany PHYS 2220.
Prerequisite(s): PHYS 2220 (may be taken concurrently).
PHYS 2900-Special Problems
1-3 hours
Individualized instruction in theoretical or experimental problems.
Prerequisite(s): None.
For elective credit only.
PHYS 2910-Special Problems
1-3 hours
Individualized instruction in theoretical or experimental problems.
Prerequisite(s): None.
For elective credit only.
PHYS 2996 - Honors College Mentored Research Experience
3 hours

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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.

\section*{PHYS 3010-Modern Physics}

3 hours (3;0;1)

Relativity, quantum physics, atomic structure, properties of matter and nuclear physics.
Prerequisite(s): PHYS 2220 and MATH 1720.

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.

\section*{PHYS 3030 - Laboratory in Modern Physics}

1 hour (0;3)
Laboratory to accompany PHYS 3010.

Prerequisite(s): PHYS 3010 (may be taken concurrently).

\section*{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 2220.

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.

\section*{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, MATH 1720.

\section*{PHYS 3420 - Electronics}
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4 hours (1-3;4-6)

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Analog and digital electronics, applications and diagnostic techniques. Selections from direct- and alternating-current circuits, and measurements; uses of diodes, transistors, etc., as switches; applications of Boolean algebra; memory and storage devices; counters and shift registers; computer
structures and bussing; servo systems and operations amplifiers; digital and analog-digital instrumentation and interfacing with computers.

Prerequisite(s): MATH 1710. PHYS 1420/PHYS 1440 or PHYS 2220/PHYS 2240.

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 only be taken once for Honors College credit.

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.

PHYS 4150 - Experimental Physics I

3 hours (1;6)

Laboratory experience via use of research-quality instruments. Modern experiments in solid state, atomic and molecular physics. Topics, which may vary, include nonlinear dynamics and chaos in circuits and lasers; SQUIDS and high temperature superconductivity; holography; X-ray diffraction; and electron scanning microscopy.

Prerequisite(s): PHYS 3010, PHYS 3030.

PHYS 4160 - Experimental Physics II

3 hours (1;6)
Experimental techniques of precision measurements in nuclear and atomic physics. Topics, which may vary, cover recent developments in modern physics suitable for advanced undergraduates and graduate students. Rutherford scattering, low energy nuclear reactions; ion-induced innershell 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).

Prerequisite(s): PHYS 3010, PHYS 3030.

PHYS 4170 - Experimental Physics III

3 hours (2;4)
Physics laboratory experience via use of research-quality equipment. Ion beam based experimental techniques for materials growth and modification and analysis using solid-state, nuclear, atomic physics principles.

Prerequisite(s): PHYS 3010, PHYS 3030.

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 2220, MATH 2730.

\section*{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.

PHYS 4310-Quantum Mechanics

3 hours (3;0;1)
Origins of the modern theory of atomic structure; Schroedinger'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.

\section*{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

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.

\section*{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 2220, PHYS 2240.

\section*{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.

\section*{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.

\section*{PHYS 4550 - Modern Classical Dynamics}

\section*{3 hours}

Introduction to nonlinear dynamical systems; onset of chaos, phase space portraits, universality of chaos, strange attractors, experimental verification, fluid dynamics and the KAM theorem.

Prerequisite(s): PHYS 3220.

\section*{PHYS 4600 - Computer Based Physics}

\section*{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 2220

\section*{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.

\section*{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).

\section*{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.

\section*{PHYS 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 physics, completion of freshman and sophomore science courses required for certification and consent of department. EDSE 3500 and EDSE 4000 are highly recommended.

Same as CHEM 4700. Same as BIOL 4700.

Students seeking secondary certification in mathematics or computer science who have completed the other science requirement of their majors also may enroll. Does not count as an elective toward a major or minor in physics, except for students seeking certification.

\section*{PHYS 4710 - Foundations of Theoretical Physics}

3 hours

Overview of topics in theoretical physics. Symmetry; mechanics: Newton's laws, celestial mechanics, Hamiltonian formalism; electromagnetism: Maxwell's equations, nonlinear optics and classical field theory, quantum optics, lasers, chaotic diffraction; quantum mechanics: measurements and scattering theory; statistical physics: entropy, equilibrium statistical mechanics; and contemporary areas: fractals, chaos and nonlinear dynamics. Topics may vary.

Prerequisite(s): PHYS 4210, PHYS 4310. PHYS 4110 (may be taken concurrently).

\section*{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.

\section*{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.

\section*{PHYS 4950 - Senior Thesis}

\section*{3 hours}

Individual research on a problem chosen in consultation with a faculty member. Research may be conducted on campus, during an internship offcampus, or as an exchange student in a study abroad program.

Prerequisite(s): Consent of supervising faculty member.

\section*{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.

\section*{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.

\section*{PHYS 4960 - Science Institute (Physics)}

\section*{1-6 hours}

For students accepted by the university as participants in special institute programs.

Prerequisite(s): None.

May be repeated for credit but not to exceed a total of 6 hours in each course.

\section*{PHYS 4970-Science Institute (Physics)}

\section*{1-6 hours}

For students accepted by the university as participants in special institute programs.

Prerequisite(s): None.

May be repeated for credit but not to exceed a total of 6 hours in each course.

\section*{Political Science}

\section*{PSCI 1010 - Politics and Pop Culture}

3 hours

Examines the influence of popular culture on American politics and/or world politics as well as the influence of politics upon popular music, films, art and other media as related to public policy, electoral processes, and general political and social change.

Prerequisite(s): None.
Core Category: Component Area Option

\section*{PSCI 1040 - American Government: Laws and Institutions}

3 hours
U.S. and Texas constitutions, federalism, local government, institutions, civil rights and civil liberties. Satisfies legislative requirement of a course emphasizing U.S. and Texas constitutions.

Prerequisite(s): None.
PSCI 1040 must be taken to satisfy the requirement of a course emphasizing U.S. and Texas constitutions.

Core Category: Government/Political Science

PSCI 1041 - Honors American Government

3 hours

Constitutions of the United States and Texas, federalism and political processes.

Prerequisite(s): Acceptance to Honors College.

Satisfies the requirement of a course emphasizing U.S. and Texas constitutions.

Core Category: Government/Political Science

PSCI 1050 - American Government: Process and Policies

3 hours

Political parties, elections, interest groups, mass media, public opinion and public policy. Satisfies the Political Science requirement of the University Curriculum.

Prerequisite(s): None.

Core Category: Government/Political Science

\section*{PSCI 1051 - Honors American Government}

3 hours

Organization, powers, processes and functions of national and state governments.

Prerequisite(s): PSCI 1041. Acceptance to Honors College.

\section*{Core Category: Government/Political Science \\ PSCI 1060 - American Government: Topics}

3 hours
Individually or team-taught courses that explore in depth a substantive aspect of American government or politics. Topics vary and may include (but are not limited to) specific contemporary public issues, institutional simulations, and politics through the arts and literature.

Prerequisite(s): None.

May be repeated for credit as topics vary. May be used for duplication only when topic is the same.

\section*{PSCI 1085 - The American Political and Economic Experience}

3 hours

Study of the organization, powers, processes and functions of institutions of national and state governments; civil liberties and civil rights; and public policy. Integrated into each political science topic are topics of macroeconomics, which are discussed in the context of American government. Includes principles of economic organization and growth in modern economies; decision-making that affects economic policy and activities, including official appointments to the Federal Reserve; economic issues, including money and banking and monetary and fiscal policy; and discussion of income and business cycles as they relate to various areas, including education, social welfare, and environmental policy.

Prerequisite(s): Acceptance into the Honors College.

Fulfills 3 hours of the legislative requirement of 6 hours of American government. May be substituted for PSCI 1050/PSCI 1051 and ECON 1110.

\section*{PSCI 2300 - Introduction to Political Research}

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 1040 or PSCI 1050/PSCI 1060, or consent of department.

\section*{PSCI 2900-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{PSCI 2996 - Honors College Mentored Research Experience}

\section*{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.

\section*{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.
Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{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.

Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 3110 - The Legislative Process}

3 hours

Legislative behavior, representation, selection of legislators, organization and procedures; relationships to other branches of government.
Prerequisite(s): PSCI 1040, PSCI 1050.

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.

Prerequisite(s): PSCI 1040, PSCI 1050.

PSCI 3130 - Interest Groups

3 hours

The theory, development, types, operations and effectiveness of interest groups in American politics.
Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 3140 - LGBT Politics}

3 hours
Explores the development and the political implications of the LGBTQ rights movement in the United States, with a goal toward understanding the role of this movement in pluralistic, contemporary political life.

Prerequisite(s): PSCI 1040 and PSCI 1050.

\section*{PSCI 3160 - Mass Media in American Politics}

3 hours

Mass media's impact upon the political process, institutions and the individual.
Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 3200 - The American Legal System}

3 hours

Institutions and processes; courts and judicial behavior.

Prerequisite(s): PSCI 1040, PSCI 1050.

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.

Prerequisite(s): PSCI 1040, PSCI 1050.

PSCI 3310 - Political Theory: Socrates to the Eighteenth Century

3 hours

Political philosophy of Western civilization from early to modern times; works of Plato, Aristotle, Machiavelli, Hobbes and others.

Prerequisite(s): 3 hours of political science.

PSCI 3320 - Political Theory: Eighteenth Century to the Present

3 hours

Political thought since the 18th century; Locke and Rousseau; liberalism and conservatism; doctrines of Western democracy; Marxist communism and socialism; 20th-century nationalism.

Prerequisite(s): 3 hours of political science.

PSCI 3420 - Bureaucracy and Public Policy

3 hours

Study of the nature of bureaucracy, its role in policy development and the problem of bureaucratic responsibility.

Prerequisite(s): PSCI 1040, PSCI 1050.

Same as PADM 3420.

\section*{PSCI 3500 - Introduction to Peace Studies}

3 hours

Origins and extent of violence in human relations, foreign and domestic.

Prerequisite(s): PSCI 1040, PSCI 1050.

PSCl 3600 - Governments and Politics around the World

3 hours

Major concepts and approaches to comparative government and politics.

Prerequisite(s): 3 hours of political science.

\section*{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.

Prerequisite(s): 3 hours of political science.
May be repeated for credit as topics vary.

\section*{PSCI 3810 - International Relations}

3 hours

Analytical survey of current world politics.
Prerequisite(s): PSCI 1040, PSCI 1050.

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.

\section*{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 only be taken once for Honors College credit.

\section*{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.

Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 4100 - Political Parties}

3 hours

Development, nature, problems, organization, operation and functions.

Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 4120 - Public Opinion and Participation}

3 hours

Shaping factors, communication techniques, public opinion, governmental action and democracy.

Prerequisite(s): PSCI 1040, PSCI 1050.

PSCI 4130 - American Intergovernmental Relations

3 hours

Federal system; constitutional and theoretical bases of federalism; national/state/local government conflict and cooperation; regional arrangements; political centralization; impact upon American traditions; future prospects.

Prerequisite(s): PSCI 1040, PSCI 1050.

Same as PADM 4130.

\section*{PSCI 4140 - The Presidency}

3 hours

Development of power, influence and limitations of the chief executive; selection, office, changing role and problems of control.

Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 4150 - Religion and Politics in the United States}

3 hours

Examines the role of religious institutions, creeds, and communities in American political life.

Prerequisite(s): None.

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.

Prerequisite(s): PSCI 1040, PSCI 1050.

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.
Prerequisite(s): PSCI 1040, PSCI 1050.

PSCI 4220 - Jurisprudence

3 hours

Law in the modern state, meaning and objects, sources and growth, and conceptions of rights and justice.

\title{
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.

Prerequisite(s): PSCI 1040 and PSCI 1050.

\section*{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.

Prerequisite(s): PSCI 1040, PSCI 1050, PSCI 2300, or consent of department.

May be repeated for credit as topics vary.

\section*{PSCI 4320 - American Political Theory}

3 hours

American political thought since Colonial beginnings.

Prerequisite(s): 3 hours of political science.

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.

Prerequisite(s): 3 hours of political science.
May be repeated for credit as topics vary.

\section*{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.

Prerequisite(s): 3 hours of political science.

\section*{PSCI 4450 - Public Policy Analysis}

3 hours

Policy making, impact of public policy and factors that place specific problems on the public agenda.

Prerequisite(s): PSCI 1040, PSCI 1050.

Same as PADM 4450.

\section*{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.

Prerequisite(s): PSCI 1040, PSCI 1050. PSCI 2300 or its equivalent.

May be repeated for credit as topics vary.

\section*{PSCI 4500 - Leadership Capstone Seminar}

3 hours

Exploration of political leadership to provide the student with the tools for understanding the concept of political leadership, its place in a democratic society and its role in the student's life in relation to government.

Prerequisite(s): PSCI 1040, PSCI 1050, PSCI 2300. Four upper-level courses or consent of department.

\section*{PSCI 4520 - International Human Rights}

3 hours

Consideration of the concept and role of human rights in international affairs.

Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 4630 - The Military in Politics}

3 hours

Involvement of the world's military forces in domestic politics, government and policy making, especially in the non-Western nations of Africa, Asia, Latin America and the Middle East. Topics include civil-military relations, military forces as interest groups, military intervention and the coup d'etat, and military performance in government.

Prerequisite(s): 3 hours of political science.

\section*{PSCI 4640 - Revolution and Political Violence}

3 hours

Causes and consequences of revolution and other forms of political violence in nations.

Prerequisite(s): 3 hours of political science.

PSCI 4650 - Comparative Public Policy

3 hours

Public policy and policy making in Westernized democratic nations. Analysis and evaluation of public policies. Introduction to cross-national
policy study techniques.

Prerequisite(s): 3 hours of political science.

PSCI 4660 - Democracy and Democratization

3 hours

Explores democracy's nature, causes of democratization, the spread of democracy in the world, and problems of consolidation of democracy.
Prerequisite(s): 3 hours of political science.

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.

Prerequisite(s): PSCI 3600.

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.

Prerequisite(s): 3 hours of political science.
May be repeated for credit as topics vary.

\section*{PSCI 4710 - Middle East Politics: Critical Issues}

3 hours

Overview of Middle Eastern regional politics. Attention is given to such issues as legitimacy, authority, identity, military, democracy and religious fundamentalism.

Prerequisite(s): 3 hours of political science.

PSCI 4720 - Ethnicity in World Politics

3 hours

Consideration of the concepts of ethnicity and nationalism as divisive elements in world affairs.

Prerequisite(s): 3 hours of political science.

\section*{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.

\section*{PSCI 4810 - International Law}

3 hours

Theoretical and political foundations of the law among nations; formation, change, application and enforcement of law; modern trends.
Prerequisite(s): PSCI 1040, PSCI 1050. PSCI 3200 or PSCI 3810, or consent of instructor.

\section*{PSCI 4820 - Contemporary International Problems}

3 hours

Major contemporary problems and conflicts confronting the international system.

Prerequisite(s): PSCI 1040, PSCI 1050. Consent of instructor.

May be repeated for credit as topics vary.

\section*{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.

Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 4822 - International Conflict Management}

\section*{3 hours}

Examination of the idea of international conflict management, focusing on the forms it can take and the conditions under which it can be successful.

Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 4823 - International Criminal Tribunals and War Crimes}

3 hours

Examines international war crimes, such as Rwanda and the former Yugoslavia, including the causes and consequences of such conflicts. Efforts to establish institutions of international justice, including the International Criminal Tribunal for the former Yugoslavia and the International Criminal Tribunal for Rwanda. Students explore international legal issues associated with such courts.

Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 4824 - Islam, Democracy and Human Rights}

3 hours

Surveys Islamic political thought in order to understand basic Islamic concepts and doctrines, such as role of religion in politics, rights and duties of the individual and community, and the nature of government. Course includes an examination of 19th- and 20th-century liberal and conservative Islamic thinkers and their efforts to reinterpret Islam to meet the challenges of modernization. Study of contemporary debates within Islam, such as democracy and human rights.

Prerequisite(s): PSCI 1040, PSCI 1050.

\section*{PSCI 4825 - Conflict and Peacemaking in the Middle East}

3 hours

Examines conflict in the Middle East at regional, national and sub-national levels from several ideological perspectives. Students examine specific conflicts and efforts to secure peace in the region.

Prerequisite(s): PSCI 1040, PSCI 1050.

PSCI 4830 - American Foreign Policy

3 hours

Principles and bases on which American foreign policy rests; machinery and personnel for policy formulation.
Prerequisite(s): PSCI 1040, PSCI 1050.

PSCI 4840 - Major Problems of American Foreign Policy

3 hours

Recent policies, decision making, implementation and coordination.

Prerequisite(s): PSCI 1040, PSCI 1050.

PSCI 4850-Critical Issues in World Politics

3 hours

Examination of major issues in world politics, including potential for war, religious fundamentalism, morality, weapons of mass destruction, and diminishing resources.

Prerequisite(s): PSCI 1040, PSCI 1050.

PSCI 4860 - International Political Economy

3 hours

Study of the politics of economic issues in international affairs, including the creation, maintenance and decay of international cooperation in trade; monetary and financial relations among Western countries; the roles of state and non-state participants; conflict and cooperation in EastWest and North-South international economic relations; and an examination of the imperialist and world systems approaches to international affairs.

Prerequisite(s): PSCI 1040, PSCI 1050.

PSCI 4900 - Special Problems

1-3 hours

Prerequisite(s): None.

PSCI 4910 - Special Problems

1-3 hours

Prerequisite(s): None.

\section*{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.

\section*{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 1040 and PSCI 1050 or their equivalents; PSCI 2300; and at least four advanced courses from three fields of PSCI.

\section*{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 1040 and PSCI 1050 or their equivalents; PSCI 2300; at least four advanced courses from three fields of PSCI; completion of departmental application process; and consent of department.

\section*{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 1040 and PSCI 1050 or their equivalents, PSCI 2300, and at least four advanced courses from three fields of PSCI.

\section*{Psychology}

\section*{PSYC 1500 - Mythbusting: Distinguishing Fact from Fallacy in Psychology and Everyday Life}

3 hours

This type of mythbusting consists of learning a variety of approaches to critical thinking, preparing students to be able to differentiate information as fact or fallacy. Traditional teaching methods with texts, lectures and discussion are used with a variety of in-class and homework experiences and assignments to develop and practice the necessary skills.

Prerequisite(s): Freshman or sophomore standing.

Core Category: Component Area Option

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.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

PSYC 1650 - General Psychology II

3 hours

Nature of psychology with emphases on the physiological basis of behavior and psychological processes, including learning, motivation, perception and emotion.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

PSYC 2317 - Quantitative Methods

\section*{4 hours (3;1)}

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 1681.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{PSYC 2600 - Interpersonal Behavior}
(PSYC 2302)
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.

Prerequisite(s): None.

\section*{PSYC 2900 - Special Problems}

\section*{1-3 hours}

Prerequisite(s): None.

\section*{PSYC 2950 - Experimental Methods}

\section*{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): PSYC 2317 or consent of department.

\section*{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.

\section*{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.

PSYC 3100 - Social Psychology
(PSYC 2319)
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): PSYC 1630 or PSYC 1650.

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.

Same as AGER 3480.

PSYC 3490 - Psychology of Women

3 hours

Comparison of personality and cultural factors associated with gender.
Prerequisite(s): PSYC 1630 or PSYC 1650.

Same as WGST 3520.

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): PSYC 2317 or equivalent.

\section*{PSYC 3530 - Psychology of the Offender}

\section*{3 hours}

Psychological processes related to the legal offender; dynamics involved in such activities as sexual deviancy, drug abuse, personal assault, including murder, and non-assaultive crimes; meaning of classification from courtroom to prisons and in release.

Prerequisite(s): PSYC 1630 or PSYC 1650.

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): None.

Core Category: Social and Behavioral Sciences

\section*{PSYC 3630 - Introduction to Psychological Measurement}

3 hours

Fundamental approaches, theories of psychological tests and testing; correlation, reliability, validity and methods of test construction.
Prerequisite(s): PSYC 2317 or equivalent.

\section*{PSYC 3640 - Marital Adjustment}

3 hours

Physiological, psychological and socioeconomic factors involved in marital adjustment; practical education for marriage and parenthood.
Prerequisite(s): PSYC 1630 or PSYC 1650.

PSYC 3700 - Ecological Psychology

3 hours

Effects of changing ecological conditions, such as the increased use of chemicals, the processing of foods, and the contamination of water and air on human behavior.

Prerequisite(s): PSYC 1630 or PSYC 1650.

\section*{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 only be taken once for Honors College credit.

\section*{PSYC 4000 - Abuse in Adult Relationships}

3 hours

A general survey of current research on psychological, interpersonal and situational factors involved in physical and emotional abuse in dating, cohabiting and marital relationships. The interdisciplinary body of research is covered from a psychological perspective.

Prerequisite(s): PSYC 2950 or equivalent.

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): PSYC 1630 or PSYC 1650.
Same as AGER 4020.

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): Junior or senior status; PSYC 1630 or PSYC 1650.

\section*{PSYC 4110 - Interviewing for Paraprofessionals in Psychology}

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): PSYC 4610.

\section*{PSYC 4300 - Psychosocial Issues in HIVIAIDS}

3 hours

Examination of the psychosocial factors that are related to health-related behaviors in both healthy people and people living with HIV/AIDS.
Prepares students who expect to pursue careers in health service fields (e.g. psychologists, physicians, biologists, dentists, etc.) to be conscious of issues that HIV-positive people face daily. Students interested in HIV/AIDS as a social phenomenon are encouraged to enroll.

Prerequisite(s): PSYC 1630 or PSYC 1650.

PSYC 4470 - Sexual Behavior

3 hours

Impact of psychosocial factors on development and expression of human sexuality.

Prerequisite(s): PSYC 1630 or PSYC 1650.

\section*{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.

\section*{PSYC 4510 - Practicum}

1-3 hours

In-depth study of areas of specific interest. Practical experience in supervised settings.

Prerequisite(s): Senior standing and consent of department.

May be repeated for credit.

\section*{PSYC 4520 - Personality}

3 hours

Major approaches to conceptualization of personality; psychodynamic, phenomenological and trait-type learning models.
Prerequisite(s): PSYC 1630 or PSYC 1650.

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): PSYC 1630 or PSYC 1650.
Core Category: Capstone

PSYC 4610 - Abnormal Psychology

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): Junior standing and 12 hours of psychology, or consent of department.

\section*{PSYC 4620 - Abnormal Child Psychology}

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.

\section*{PSYC 4640 - Psychophysiology}

3 hours

Physiological processes of the body and relationships to behavior. Sensory and motor processes, learning and memory, and physiological problems of motivation and emotion.

Prerequisite(s): PSYC 1630 or PSYC 1650.

PSYC 4670 - Behavioral and Biopsychosocial Challenges within LGBT Communities

3 hours
Understanding the health-related behaviors and psychosocial factors associated with sexual minorities (LGBT: lesbian, gay, bisexual and transgendered), primarily in the U.S. Designed for healthcare workers, educators, service providers and individuals who work with or are interested in LGBT communities.

Prerequisite(s): None.

\section*{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 2950 or consent of department.

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.

PSYC 4800 - Introduction to Perception and Cognition

3 hours

A general survey of current data in perception and cognition. Perception topics covered are psychophysics, sensory psychology, perceptual constancies and the development of perception. Cognition topics include short- and long-term memory, problem solving, concept formation and the acquisition of knowledge. The information processing approach is emphasized as a means of interpreting perception and cognition.

Prerequisite(s): PSYC 1630 or PSYC 1650.

\section*{PSYC 4849 - Topics in Psychology}

3 hours

Selected topics of current interest and importance in psychology not covered by existing course offerings.

Prerequisite(s): PSYC 1630 or PSYC 1650.

May be repeated for credit as topics vary for a maximum of 6 hours.

PSYC 4900-Special Problems

1-3 hours

Prerequisite(s): None.

PSYC 4910 - Special Problems
\(1-3\) hours
Prerequisite(s): None.

\section*{PSYC 4950 - Honors Thesis}

\section*{3 hours}

Research project for outstanding psychology students. The project must involve planning, conducting and defending an actual project.
Prerequisite(s): PSYC 2317, PSYC 2950, 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.

\section*{Core Category: Capstone}

\section*{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.

\section*{Public Administration}

\section*{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.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

PADM 3000-Public Administration

3 hours

Organizations and management in executive departments, and national, state and municipal governments; bureaucracy; administrative theory; budgeting; personnel and administrative leadership.

Prerequisite(s): None.

\section*{PADM 3020 - Public Management}

3 hours
Introduction to organization and management theories and practices as they concern federal, state and local governments.

Prerequisite(s): None.

Same as EADP 3080.

\section*{PADM 3410 - Financial Aspects of Government}

3 hours

Politics and management of taxation, budgeting, grants-in-aid and municipal bonds. Conflicts among politicians, managers and analysts in developing policy and financing programs.

Prerequisite(s): None.

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.

Prerequisite(s): None.

Same as PSCI 3420.

PADM 3700-Issues in Public Administration

3 hours

In-depth investigation of a contemporary issue of concern to public managers. Possible topics include managing nonprofit organizations, publicprivate partnerships and ethics in government.

Prerequisite(s): None.
May be repeated for credit as topics vary.

\section*{PADM 4130-American Intergovernmental Relations}

3 hours

Federal system; constitutional and theoretical bases of federalism; national/state/local government conflict and cooperation; regional arrangements; political centralization; impact upon American traditions; future prospects.

Prerequisite(s): None.

Same as PSCI 4130.

\section*{PADM 4450 - Public Policy Analysis}

\section*{3 hours}

Policy making, impact of public policy and factors that place specific problems on the public agenda.

Prerequisite(s): None.

Same as PSCI 4450.

\section*{PADM 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

\title{
Public Affairs and Community Service
}

\section*{PACS 3000 - Pathways to Civic Engagement}

3 hours

Promotes understanding of self in relation to theory and practice of civic engagement. Topics include the history of civic engagement and civil society, earning and spending social capital, voluntary sector engagement, trends in civic engagement in the U.S., and social issues. This course has a service learning requirement.

Prerequisite(s): None.

Same as HSML 3000.

\section*{PACS 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): None.

\section*{PACS 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.

Prerequisite(s): None.
Required for interdisciplinary minor in alternative dispute resolution.

\section*{PACS 4010 - Family Mediation}

\section*{3 hours}

Provides mediators with advanced practical skills and clear theoretical understanding of family mediation, with particular emphasis on divorce and child custody issues. Meets statutory requirements of Texas and many other states for mediators of disputes relating to the parent-child relationship.

Prerequisite(s): PACS 4000.

\section*{PACS 4020 - Dispute Resolution in the Workplace}

\section*{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.

Prerequisite(s): None.

\section*{PACS 4030 - Dispute Resolution in a Global Workplace}

\section*{3 hours}

Explores the relationship of trade-based and work-based conflict with special focus on alternative dispute resolution practices. Examines dispute resolution options available in trade agreements and their implications for workplace and trade. Students learn the benefits and limitations of workplace conflict resolution practices in an environment with multiple layers of world trade.

Prerequisite(s): None.

\section*{PACS 4040 - Crisis Intervention}

3 hours

Provides overview of crisis intervention from the perspectives of a host of intervention organizations and professionals. Reviews the tactics, techniques, behaviors, emotions and motivations of those who intervene or negotiate in crisis situations as well as those of persons who precipitate such actions and their victims. Students are introduced to professionals who negotiate interventions in suicide, workplace and domestic conflict situations. Review of existing research and practices about such interventions.

Prerequisite(s): None.

\section*{PACS 4050 - Negotiation and Dispute Resolution}

\section*{3 hours}

Introduces the fundamentals of nonlitigation 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.

Prerequisite(s): None.

Required for interdisciplinary minor in alternative dispute resolution.

\section*{PACS 4060 - Practicum in Mediation and Dispute Resolution}

3 hours

Provides opportunity for students to round out their education in dispute resolution through participation in numerous exercises, simulations and actual mediations and/or other forms of alternative dispute resolution.

Prerequisite(s): PACS 4000

Required for interdisciplinary minor in alternative dispute resolution.

PACS 4070 - Arbitration Basics

3 hours

Essential characteristics, concepts and practices of arbitration. Examines basic functions and duties of arbitrators, parties in arbitration hearings and party representatives. Covers arbitration ethics and practices in international, commercial, labor/employment, financial services, real estate, and other industries, sectors, and socioeconomic settings.

Prerequisite(s): None.

PACS 4170 - Introduction to Research in the Social Sciences

3 hours

Introduction to research used in the social sciences. Tools and techniques of data gathering. Approaches include qualitative and quantitative methods. Focus on understanding the basics of research design and developing student abilities to critically evaluate research reports in journals, professional reports and the mass media.

Prerequisite(s): None.

\section*{PACS 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.

Prerequisite(s): None.

May not be repeated if credit has been received for it at the graduate level.

\section*{PACS 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.

Prerequisite(s): None.

\section*{PACS 4220 - Proposal Writing and Grants Administration}

3 hours

Basic steps in researching funding ideas, including how to use the Internet as a fundamental tool and the detailed steps required for preparing funding applications. Focus on the skills and tools needed to monitor funds once grants have been awarded.

Prerequisite(s): None.

\section*{PACS 4230 - Social Evolution of Contemporary Volunteerism}

3 hours

Analysis and review of the social evolution of contemporary volunteerism from revolutionary times to the present. Study of the current issues, definitions, and trends in the field of professional management. Introduction to social systems supporting or limiting volunteerism and volunteerism resources on the Internet.

Prerequisite(s): None.

May not be repeated at the graduate level as COMS 5100.

\section*{PACS 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.

Prerequisite(s): None.

May not be repeated if credit has been received for it at the graduate level.

PACS 4250 - Community Resource Mapping and Collaboration

3 hours
Analyzes systems that measure community assets and resources. Explores the means of identifying and approaching potential collaborative community partners, and focuses on the development of joint proposals and/or business plans. Provides an overview of the role of volunteer managers and agency leadership of community organizations that provide resources in the development of a collaborative, capacity building community. An ecological approach is used to analyze the full range of human service agency services: health, social, educational, diagnostic, enrichment, religious, civic and legal. Students have an opportunity to do field work with agency staff on assigned community projects.

Prerequisite(s): None.

\section*{PACS 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.

Prerequisite(s): None.

Same as HSML 4700.

May not be repeated if credit has been received for it at the graduate level.

\section*{PACS 4300 - Nonprofit Leadership Capstone}

3 hours

Designed to crystallize the competencies covered in the COMS nonprofit leadership 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. Satisfies one of the course requirements for students pursuing Non-profit Leadership Alliance certification.

Prerequisite(s): Consent of program director.

\section*{PACS 4310 - Community Service Internship}

\section*{3 hours}

Supervised work in a community agency that is directly related to the student's major, professional field or career objective. 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.

Same as HSML 4850.

May be repeated for credit.

\section*{PACS 4610 - Topics in Community Service}

3 hours

Study of various topics in community service. Possible topics include service-learning, volunteer management, and others.

Prerequisite(s): None.

May be repeated for credit as topics vary.

PACS 4900-Special Problems

1-3 hours

Special problems and research in economic development or regional/sectoral analysis.
Prerequisite(s): None.

Registration permitted only upon approval of instructor.

\section*{PACS 4910 - Special Problems}

1-3 hours

Special problems and research in economic development or regional/sectoral analysis.

Prerequisite(s): None.

Registration permitted only upon approval of instructor.

PACS 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.

\section*{Reading}

\section*{EDRE 1200 - Developmental Reading}

3 hours

Strategies for improving comprehension of college texts. Includes vocabulary development, comprehension monitoring, critical reading, summarizing and rate flexibility. Students must complete the course with a passing grade of at least a C.

Prerequisite(s): None.

Credit in this course does not fulfill any degree requirement.

\section*{EDRE 4450 - Reading and Writing, Birth through Grade 6}

3 hours (3;0;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.

EDRE 4800 - 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.

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.

\section*{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.

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).

\section*{EDRE 4850 - Assessment and Evaluation of Reading}

3 hours

Examines a variety of assessment and evaluation strategies that are appropriate for the classroom teacher to utilize. Although both formal and informal procedures are introduced, the main focus is on non-intrusive, naturalistic procedures. Observations are required.

Prerequisite(s): EDRE 4450 or EDRE 4820.

EDRE 4860 - Reading and the Language Arts in Grades EC-8

3 hours

Problems related to the comprehension and expansion of symbols of meaning; the interrelationship of reading with other areas of language arts.

Prerequisite(s): EDEE 3320 and EDEE 3380 (for EC-6 certifications) or EDME 3380 (for 4-8 certifications). Admission to the teacher education program.

\section*{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 EDSE 4060 (for 4-8 Social Studies, Science or Mathematics;7-12 Secondary ELA and the prerequisite course may be taken concurrently).

\section*{EDRE 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

EDRE 4910-Special Problems

1-3 hours

Prerequisite(s): None.

\section*{Real Estate}

\section*{REAL 2100 - Principles of Real Estate}
(REAL 1301)
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.

Prerequisite(s): None.

\section*{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.

\section*{REAL 3100-Real Estate Agency}

3 hours

Creation, termination and practice of real estate agency relationship in regards 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.

Prerequisite(s): None.

\section*{REAL 3996 - Honors College Mentored Research Experience}

\section*{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 only be taken once for Honors College credit.

\section*{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.)

\section*{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.

\section*{Prerequisite(s): REAL 2100.}

\section*{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 4200.

\section*{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.)

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.)

\section*{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.

\section*{REAL 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{REAL 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.

\section*{Recreation, Event and Sport Management}

\section*{RESM 1950 - Foundations of Recreation, Event and Sport Professions}

3 hours

Introduction to the recreation, event and sport professions including philosophical and foundation 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 government organizations. Trends in services to various populations. An overview of career opportunities in the field.

Prerequisite(s): None.

RESM 2150 - Leadership in Recreation, Event and Sport Management

3 hours (2;1)
Study of the theories and practices related to leadership in the recreation, event and sport professions. Emphasis is placed on self-awareness; leadership style, techniques and effectiveness; group dynamics; problem solving; decision making; volunteer and staff leadership. Students will complete a 15 -hour practical leadership lab experience.

Prerequisite(s): None.

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.

Prerequisite(s): None.

RESM 2900-Special Problems

1-3 hours
Individual study designed in consultation with instructor.

Prerequisite(s): Consent of department.

\section*{RESM 2910-Special Problems}

1-3 hours

Individual study designed in consultation with instructor.
Prerequisite(s): Consent of department.

RESM 3050 - Programming in Recreation, Event and Sport Services

3 hours

Fundamentals of program planning using techniques of identifying and analyzing program activity areas; content includes program development and application with a variety of population groups and representatives of the recreation, event and sport services markets.

Prerequisite(s): None.

\section*{RESM 3450 - Diversity in Recreation, Event and Sport Services}

\section*{3 hours}

Study of history, theories, philosophies and techniques of providing inclusive RESM services. Barriers to individuals are discussed in relation to strategies to address these barriers, for groups such as people with disabilities, older adults, people of color and gender differences. Field-based experiences provide a perspective of services with diverse populations.

Prerequisite(s): None.

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.

Prerequisite(s): None.

\section*{RESM 4050 - Management Perspectives in the Recreation, Event and Sport Industries}

3 hours

Management topics in recreation, event and sport industries are covered such as: strategic planning, organizational design, budgets, management theory, leadership, problem solving and communication.

Prerequisite(s): None.

\section*{RESM 4060 - Therapeutic Activity Intervention and Aging}

3 hours

Develops an awareness of the physiological, psychological, economic and sociological processes of aging that affect leisure-time behavior and involvement patterns. Emphasis is on age-related illness, disease, disability and therapeutic activity intervention.

Prerequisite(s): None.

Same as AGER 4060.

\section*{RESM 4070 - Staffing Perspectives in Recreation, Event and Sport Organization}

3 hours

Emphasizes human resource management and the employment process, personnel policies and procedures, legal issues, supervision, performance appraisal, and technological tools in RESM. Also focuses on fostering positive relationships with executive staff, boards and commissions, the public and consumers, special interest groups, and volunteers.

Prerequisite(s): RESM 3050 and RESM 4050.

RESM 4080 - Legal Dimensions of the Recreation, Event and Sport Industries

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.

Prerequisite(s): RESM 3050 and RESM 4050.

\section*{RESM 4100 - Internship in Recreation, Event or Sport Management}

3-12 hours

Field-based experience in an approved recreation, event or sport related organization. Emphasis is placed on application of knowledge and skills to real-world job roles and responsibilities.

Prerequisite(s): RESM 3050 and RESM 4050; plus any 7 of the following courses: RESM 1950, RESM 2150, RESM 2550, RESM 3450, RESM 4060, RESM 4070, RESM 4080, RESM 4160, RESM 4180, RESM 4190, RESM 4200, or RESM 4340.

May be repeated for credit up to a maximum of 12 hours.

\section*{RESM 4150 - Professional Development and Capstone Experience in Leisure, Sport and Wellness Related Professions}

\section*{3 hours}

Capstone course intended to provide a bridge from theory to professional practice. Integrates students' learning experiences from their core classes into their professional goals. Students explore their approaches to lifelong learning and make connections as to how a liberal arts background can facilitate currency and relevancy in professional practice and life. Determining a career direction, assuming professional roles and performing actual job responsibilities in a global and diverse world are emphasized. As students prepare for entry into the leisure, sport or wellness profession they are exposed to and practice steps in making decisions with a focus on promoting sound and ethical judgment to create a common good.

Prerequisite(s): Completion of all UNT core curriculum courses with the exception of the capstone course and the student must be in his/her final year of course work in the KHPR department.

\section*{RESM 4160 - Evaluation of Recreation, Event and Sport Services}

3 hours

Examination and application of models and methodologies for evaluating programs in recreation, event and sport services delivery systems. Includes research methods and design, statistical analyses, and technological skills required to propose, implement and analyze recreation, special events and sport programs and services.

Prerequisite(s): RESM 3050 and RESM 4050.

\section*{RESM 4180 - Planning, Designing, Maintaining RESM Facilities and Areas}

3 hours

Includes basic elements, procedures and processes involved in planning, designing, developing and maintaining recreation, park, leisure and sport facilities and areas. Students assess and evaluate existing facilities and areas in terms of functionality, access standards and maintenance operations.

Prerequisite(s): RESM 3050 and RESM 4050.

\section*{RESM 4190 - Fiscal Administration in Recreation, Event and Sport Services}

3 hours

Fiscal administration in RESM, generating alternative sources of revenue, marketing strategies, taxes, bonds, pricing schemes, break-even analysis, cash flow, the budget process, foundations, donations, volunteers, and target and service marketing.

Prerequisite(s): RESM 3050 and RESM 4050.

3 hours

Survey of the development and management of commercial goods and services offered in the recreation, event and sport markets, with a focus on entrepreneurship.

Prerequisite(s): RESM 3050 and RESM 4050.

RESM 4340 - Event Production in the Recreation, Event and Sport Industries

3 hours

The planning, implementation and assessment of recreation, event and sport related services. Examines the various administrative aspects of these event and sport program systems such as planning and evaluation, personnel, financial administration, risk management, and marketing.

Prerequisite(s): RESM 3050 and RESM 4050.

\section*{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.

Prerequisite(s): None.

\section*{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, remotivation, activities therapies and therapeutic relationships.

Prerequisite(s): None.

RESM 4800 - Studies in Recreation, Event and Sport Management

1-6 hours

Prerequisite(s): Consent of department.

RESM 4900 - Special Problems in Recreation, Event and Sport Management

1-6 hours

Prerequisite(s): Consent of department.

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.

\section*{Rehabilitation}

\section*{RHAB 1010 - Sign Language I}

3 hours

Developmental use of non-verbal communication through receptive and expressive finger spelling; receptive and expressive sign language.

Prerequisite(s): None.

RHAB 1020 - Sign Language II

3 hours

Expanded signing vocabulary; increased finger spelling, and American sign language and idioms.
Prerequisite(s): None.

RHAB 2000-Recovery Seminar

1 hour

Intensive evaluation of all the issues involved in both addiction and recovery. Students who are enrolled in the Collegiate Recovery Program (CRP) are required to take this class during their first semester at UNT. Facilitates the students' knowledge of recovery principles and fosters their ability to develop leadership skills in the campus recovery community.

Prerequisite(s): Admission to Collegiate Recovery Program.

May be repeated up to a maximum of 3 hours.

\section*{RHAB 2430 - Policies, Issues, and Programs in Social Welfare}

3 hours

Current social policies and issues affecting the development of social welfare services; relationships between basic social values and social welfare services.

Prerequisite(s): None.
Same as SOWK 2430.

\section*{RHAB 2575 - Introduction to Drugs and Addictions}

\section*{3 hours}

Examines the meaning of substance use and addiction in modern society, taking an interdisciplinary view of its causes and the effects of commonly used drugs and the impact of substance use/addiction on the individual and society.

Prerequisite(s): None.

\section*{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.

\section*{RHAB 3000-Microcounseling}

3 hours

Microcounseling skills and case presentation. Students learn and practice specific interpersonal communication and microcounseling skills related to human service delivery.

Prerequisite(s): None.

Core Category: Component Area Option

\section*{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.

Prerequisite(s): None.
Core Category: Social and Behavioral Sciences

\section*{RHAB 3200 - Physical and Psychosocial Aspects of Disability I}

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.

Prerequisite(s): None.

Same as SOWK 3200.

\section*{RHAB 3400 - Physical and Psychosocial Aspects of Disability II}

3 hours

Continuation of material begun in RHAB 3200. Overview of etiology, progression and treatment of major disabling conditions. Includes the interplay of physical, psychosocial and vocational implications. Includes the emphasis on medical terminology and adaptive equipment.

Prerequisite(s): RHAB 3200 or consent of department.

\section*{RHAB 3500 - Human Behavior in the Social Environment I}

3 hours
Theories of human interaction as a framework for practice decisions. Ecological and strengths-based perspective to explore social systems as vehicles for individual and social change. The specific focus of this course is on the human life course as it is impacted by biological, psychological, social and cultural factors.

Prerequisite(s): None.
Same as SOWK 3500.

\section*{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.

Prerequisite(s): RHAB 3000, RHAB 3100.

RHAB 3975-Addictions

3 hours

Examines the relationship of substance use and addiction to individual functioning and health, social welfare, and family life. Reviews the origins, effects and treatment of addictive behaviors.

Prerequisite(s): None.

\section*{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 only be taken once for Honors College credit.

RHAB 4010 - Substance Use Disorder Treatment

3 hours

Addresses the phases and processes used in the treatment of addiction. Covers a range of perspectives on treatment including emotional, cognitive, legal, social, family and systemic interventions as well as relapse prevention.

Prerequisite(s): None.

Same as SOWK 3150.

\section*{RHAB 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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): RHAB 3000, RHAB 3100.

\section*{RHAB 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.

Prerequisite(s): None.

RHAB 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.

Prerequisite(s): None.

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.

Prerequisite(s): RHAB 3000, RHAB 3100, RHAB 3900, rehabilitation major.

\section*{RHAB 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): RHAB 4175.

RHAB 4475-Assessment of Alcoholism and Chemical Dependency

3 hours

Explores the tools and dynamics of assessing chemical dependency, the placement and referral of these clients and treatment planning. Students learn to systematically gather data from clients and other sources; to use psycho-social instruments that are sensitive to age, gender and culture; and to apply accepted criteria in diagnosing substance abuse disorders and making treatment recommendations.

Prerequisite(s): RHAB 4175 or equivalent.

\section*{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.

Prerequisite(s): None.

RHAB 4575-Current Issues in Substance Use Disorders

\section*{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.

Prerequisite(s): None.

May be repeated for credit as topics vary.

\section*{RHAB 4675 - Alcohol and Drug Abuse 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): RHAB 4175, RHAB 4475.

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.

Prerequisite(s): RHAB 3100 or consent of department.

Same as SOWK 4600.

RHAB 4800-Studies in Rehabilitation

1-3 hours

Prerequisite(s): Consent of department.

May be repeated for credit as topics vary.

\section*{RHAB 4810-Studies in Rehabilitation}

1-3 hours

Prerequisite(s): Consent of department.

May be repeated for credit as topics vary.

\section*{RHAB 4860 - Professionalism and Leadership}

3 hours

Examines the ethical principles underlying the rehabilitation code of ethics and applies them through examination of legal and ethical issues arising within rehabilitation practice. Reviews the role of rehabilitation leaders in ensuring quality, consumer-oriented rehabilitation services. Includes review of the rehabilitation counselor code of ethics, accreditation, licensure and certification for rehabilitation professionals.

\section*{RHAB 4880 - Rehabilitation Practicum}

\section*{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 3200 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.

\section*{RHAB 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.

RHAB 4900-Special Problems

1-3 hours

Prerequisite(s): None.

\section*{RHAB 4910-Special Problems}
\(1-3\) hours

Prerequisite(s): None.

\section*{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.

\section*{Retailing}

\section*{RETL 3950 - Visual Merchandising and Promotion}

3 hours

Study of the promotional strategies in retail merchandising and fashion product development industries. Emphasis is on various promotional tools, including visual presentations, store layout, print and broadcast advertising, interactive media, sales promotion, public relations, special events and fashion shows. Experience in planning, execution, installation and evaluation of promotional strategies. Practice with equipment, materials and techniques used in presentation of merchandise.

Prerequisite(s): MDSE 3750.

\section*{RETL 4850 - Brand Development}

3 hours

Students plan, develop and present private label apparel or home furnishings products using a multi-functional team approach. Includes application of computer software.

Prerequisite(s): DRTL 2090, HFMD 2400 or MDSE 2490; plus 9 additional hours in the major; major or minor in digital retailing, home furnishings merchandising, merchandising or retailing.

\section*{Risk Management and Insurance}

\section*{RMIN 2500 - Principles of Risk and Insurance Management}

3 hours

Consumer-oriented study of basic risk theory, elementary risk management techniques and fundamental principles: individual life insurance and annuity products; automobile, homeowners, health and selected social insurance programs; insurers and their operations; guidelines for efficient purchase and use of insurance products. Recommended for all students, regardless of major field of interest.

Prerequisite(s): None.

\section*{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.

\section*{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 only be taken once for Honors College credit.

\section*{RMIN 4200 - Life Insurance}

3 hours

Economic basis, fundamental principles, types of life insurance and annuity products, pertinent legal concepts, contract provisions, taxation of life insurance and annuity products, nature and operations of companies, and financial statements of life insurers; personal and business uses of life insurance and annuity products.

Prerequisite(s): None.

\section*{RMIN 4300 - Liability Risk Management and Insurance}

3 hours

Liability exposures to loss and methods available to treat them; commercial general liability coverage, worker's compensation, business auto insurance; and other insurance products for treating commercial liability loss exposures. Liability insurance underwriting, rating and pricing.

Prerequisite(s): None.

\section*{RMIN 4310 - Property Risk Management and Insurer Operations}

3 hours

Insurance company operations and management, including statutory accounting principles, financial management, underwriting, claims and
reinsurance. Discussion of commercial property coverages and risk management techniques, including basic property insurance, consequential loss coverage, fidelity and surety bonding and crime coverages.

Prerequisite(s): None.

\section*{RMIN 4400 - Employee Benefit Programs}

3 hours

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): None.

\section*{RMIN 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.

\section*{Prerequisite(s): None.}

\section*{RMIN 4600 - Risk Management}

\section*{3 hours}

Study of financial effects of pure risk on businesses and not-for-profit institutions; policy, goals, objectives, organization of effort, 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.

Prerequisite(s): None.

\section*{RMIN 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.

\section*{RMIN 4900 - Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{RMIN 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.

\section*{Russian}

RUSS 1010 - Elementary Russian
(RUSS 1311 or RUSS 1411 or RUSS 1511)
3 hours (3;2)

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): None.

RUSS 1020 - Elementary Russian
(RUSS 1312 or RUSS 1412 or RUSS 1512)
3 hours (3;2)

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): RUSS 1010 or equivalent.

RUSS 2040 - Intermediate Russian
(RUSS 2311)
3 hours

Grammar, composition, oral-aural practice and readings.
Prerequisite(s): RUSS 1020 or equivalent.

RUSS 2050 - Intermediate Russian
(RUSS 2312)
3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): RUSS 2040 or equivalent.

RUSS 2900-Special Problems

1-4 hours

Prerequisite(s): None.

\section*{RUSS 2910-Special Problems}

1-4 hours

Prerequisite(s): None.

RUSS 3070-Russian Composition and Conversation

\section*{3 hours}

Focuses on writing, grammar and conversation skills through a review of Russian syntax and the use of authentic Russian readings to build vocabulary, develop writing skills, and increase conversational fluency.

Prerequisite(s): RUSS 2050 or equivalent.

\section*{RUSS 3080-Russian Through Music and Film}

3 hours

Focuses on listening and conversation skills, using authentic Russian films, music and television programs to build vocabulary, enhance listening comprehension and develop discussion skills.

Prerequisite(s): RUSS 2050 or equivalent.

\section*{RUSS 4900 - Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{RUSS 4910 - Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{Secondary Education}

\section*{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.

\section*{EDSE 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 Arts and Sciences.

\section*{EDSE 3800 - Professional Issues in Teaching}

3 hours

Overview of American secondary education, including history, purposes, legal bases, school organization, education as a profession and analysis of characteristics required for professional success.

Prerequisite(s): None.

EDSE 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.

\section*{EDSE 4000-Classroom Interactions}

3 hours

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.

Prerequisite(s): TNTX 1200, EDSE 3500. Admission to the Teach North Texas Program, a university grade point average of at least 2.50.

EDSE 4060 - Content Area Reading in Secondary Schools

3 hours (0;0;3)

Provides an overview of the reading process with emphasis on reading to learn in the secondary school content areas. 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.

Prerequisite(s): None.

\section*{EDSE 4070 - Teaching Diverse Populations}

3 hours (0;0;3)

Provides knowledge and skills required for developing and implementing challenging instruction for students who are culturally different, students who receive special education services and students who are identified as gifted and talented.

Prerequisite(s): None.

\section*{EDSE 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.

Required for those seeking secondary or all-level certification. See Student Teaching Program for details. Pass/no pass only.

\section*{Core Category: Capstone}

\section*{EDSE 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.

Required for those seeking secondary or some level certification. See Student Teaching Program for details. Pass/no pass only.

\section*{EDSE 4138 - Student Teaching Secondary School - Art}

3 hours
Teaching art in secondary schools under supervision.

Prerequisite(s): AEAH 3753, AEAH 3770, AEAH 4750, AEAH 4760, AEAH 4795, AEAH 4780, AEAH 4790, EDSE 4060, EDSE 3800. Admission to the visual art studies program, the teacher education program, senior standing, 2.75 GPA in reading and professional development courses.

\section*{EDSE 4148 - Student Teaching for Music Education}

3 hours
Teaching under supervision. For music education majors only.

Prerequisite(s): EDSE 3800, HDFS 3123, MUED 3200. EDRE 4820 or EDSE 4060, MUED 4109 or MUED 4103, MUED 4203 or MUED 4209, secondary piano proficiency, theory proficiency, concentration proficiency, computer proficiency and senior standing.

Required for those seeking all-level or secondary certification. See Student Teaching program for details. Pass/no Pass only.

3 hours
Foundations of project-based, case-based and problem-based learning environments. Principles of project-based curriculum development in mathematics and science education. Classroom management and organization of project-based learning classrooms. This capstone course should be taken just prior to student teaching.

Prerequisite(s): EDSE 4000. Admission to Teacher Education and the Teach North Texas program.

EDSE 4608 - Apprentice Teaching I in Mathematics, Science and Computer Science

3 hours ( \(0 ; 0 ; 6\) )

Teaching under supervision.
Prerequisite(s): Concurrent enrollment in EDSE 4628; and senior standing.
Required for students seeking secondary certification. See the Teach North Texas program for details.

EDSE 4618 - Apprentice Teaching II in Mathematics, Science and Computer Science

3 hours ( \(0 ; 0 ; 6\) )

Teaching under supervision.
Prerequisite(s): TNTX 1100, TNTX 1200; EDSE 3500, EDSE 4000, EDSE 4500. Concurrent enrollment in EDSE 4628; and senior standing.

Required for students seeking secondary certification. See the Teach North Texas program for details.

EDSE 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.
Prerequisite(s): TNTX 1100 and TNTX 1200; EDSE 3500; EDSE 4000 and EDSE 4500; concurrent enrollment in EDSE 4608 and EDSE 4618; satisfactory completion of the preliminary portfolio; and senior standing.

\section*{EDSE 4800 - Studies in Education}

\section*{1-3 hours}

Organized classes for program needs and student interest.

Prerequisite(s): Consent of department.

Limited-offering basis. May be repeated for credit.

EDSE 4810 - Studies in Education

\section*{1-3 hours}

Organized classes for program needs and student interest.

Prerequisite(s): Consent of department.

Limited-offering basis. May be repeated for credit.

\section*{EDSE 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.

\section*{EDSE 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{EDSE 4910 - Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{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.

\section*{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.

Prerequisite(s): None.

Core Category: Social and Behavioral Sciences

\section*{SOWK 2430 - Policies, Issues and Programs in Social Welfare}

3 hours

Current social policies and issues affecting the development of social welfare services; relationships between basic societal values and social welfare services.

Prerequisite(s): None.

Same as RHAB 2430.

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.

SOWK 3050 - Drugs and Alcohol

3 hours

Covers the physiological, biological and behavioral causes and effects of substance abuse and addiction with particular focus on the impact of alcohol, cannabis, nicotine, opiates, stimulants, depressants and hallucinogens on mind, body and behavior.

Prerequisite(s): None.

Same as RHAB 4075.

\section*{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.

Prerequisite(s): None.

Same as RHAB 3975.

3 hours

Stages of adjustment to disability, impact of age of 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.

Prerequisite(s): None.

Same as RHAB 3200.

\section*{SOWK 3500 - Human Behavior and the Social Environment I}

3 hours

Theories of human interaction as a framework for practice decisions. Ecological and strengths-based perspective to explore social systems as vehicles for individual and societal change. Part of a two-course sequence focusing most specifically on the human life course as it is impacted by biological, psychological, social and cultural factors.

Prerequisite(s): None.

\section*{SOWK 3800-Social Work Practice I}

\section*{4 hours (3;1)}

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.
A 1-hour lab to practice skills is a required component of this course. Students must enroll in one section of lab.

\section*{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.

Prerequisite(s): None.

\section*{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 only be taken once for Honors College credit.

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.

Prerequisite(s): None.

\section*{SOWK 4430 - Applied Social Welfare Policy}

\section*{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.

Prerequisite(s): None.

\section*{SOWK 4500 - Human Behavior and the Social Environment II}

3 hours

Presents theories of human interaction as a framework for practice decisions. Employs an ecological and strengths-based perspective to explore social systems as vehicles for individual and societal change. This is part of a two-course sequence and focuses most specifically on systems which impact life, starting with the individual as a multi-dimensional system and moving through families, groups, organizations, communities, and society.

Prerequisite(s): SOWK 3500, SOWK 3800, SOWK 4540.

Corequisite(s): SOWK 4800, SOWK 4880

\section*{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 sociopolitical, intrapersonal and socio-cultural 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.

Prerequisite(s): None.
Core Category: Component Area Option

\section*{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.

\section*{SOWK 4700-Child Welfare Practice and Services}

3 hours

Addresses contemporary practices in the child welfare system, legal and judicial processes, understanding the dynamics of abuse/neglect, and
indicators of risk. Covers a range of the child welfare services related to investigation, in-home services, out-of-home placement, and foster/adoption services for abused and neglected children. Twenty hours of service learning in a child welfare agency is required.

Prerequisite(s): None.

\section*{SOWK 4800 - 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. Students engage in a service learning project.

Prerequisite(s): SOWK 3800.

\section*{SOWK 4810 - 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 4800.

\section*{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, and concurrent enrollment in SOWK 4875.

\section*{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.

\section*{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

Prerequisite(s): None.

Same as AGER 4880.

3 hours

Selected topics in social welfare.
Prerequisite(s): SOWK 1450 or consent of chair.

May be repeated for credit as topics vary.

\section*{SOWK 4900-Special Problems}
\(1-3\) hours

Prerequisite(s): None.

\section*{SOWK 4910-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{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.

\section*{Sociology}

\section*{SOCI 1510 - Introduction to Sociology}
(SOCI 1301)

3 hours

Social and cultural basis for human behavior; impact of societal groups and organizations on personal identity, feelings and actions; influence on the self in relation to the family, peer groups, social classes, religion and social institutions.

Prerequisite(s): None.

Satisfies arts and sciences core social science requirements. Required of all sociology majors.

Core Category: Social and Behavioral Sciences

\section*{SOCI 1520 - Contemporary Social Problems}
(SOCI 1306)

3 hours

Conditions disruptive to society today, both those seen as problematic as a whole and those that violate the norms of special groups in society; includes population, poverty, minorities, crime, drugs, sexual deviance, mental illness, changing family patterns and violence.

Prerequisite(s): None.

Satisfies arts and sciences core social science requirements. Advised for students planning sociology graduate work

\section*{SOCI 2010 - Race, Class, Gender and Ethnicity}
(SOCI 2319)

3 hours

Social, cultural and economic perspectives on Native, African-, Asian- and Mexican-Americans; emphasizes work and family patterns for both women and men, racism and sexism, and contemporary movements for equality.

Prerequisite(s): None.

Same as WGST 2420.

\section*{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.

Prerequisite(s): None.
Same as KINE 2050.

3 hours

Introduction to the basic theories within current and historical race and ethnicity relations. Includes examination of evidence of continuing prejudice, institutional discrimination and modern forms of racism. Other topics include assimilation, pluralism, the contact hypothesis, antiracism, immigration, segregation and racial identity.

Prerequisite(s): None.

Same as ANTH 2070.

Required for all ethnic studies minors.

Core Category: Component Area Option

SOCI 2100 - Crime and Justice in the United States

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).

Prerequisite(s): None.

Same as CJUS 2100.

Core Category: Social and Behavioral Sciences

\section*{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.

\section*{SOCI 3000-Sociology of Marriage and Family}

3 hours

Interpersonal dynamics of marriage and family life; role and influence of the family as both a powerful primary group and as a social institution in society; current status of families in the United States plus cross-cultural and historical patterns.

Prerequisite(s): None.
Advised for students planning sociology graduate work.

\section*{SOCI 3110 - Sociology of Mental Health, Mental IIIness 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.

Prerequisite(s): None.

\section*{SOCI 3120 - Sociology of Health and IIlness}

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.

Prerequisite(s): None.

\section*{SOCI 3190 - Correctional Counseling}

3 hours

Study of the basic purposes and techniques of counseling with consideration given to the development of interpersonal skills required to enhance communication and to effect positive behavioral change. Special attention is devoted to exemplary and experimental programs aimed at promoting long-range social adjustment. Experiential learning is provided through case studies and situational exercises.

Prerequisite(s): None.

\section*{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.

\section*{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.

\section*{SOCI 3240-Qualitative Data Collection}

3 hours

Principles and procedures, sources of data, techniques of collection and analysis of qualitative data. Focus on how sociologists use face-to-face interviewing, participant observation, focus groups and other qualitative methods.

Prerequisite(s): SOCI 1510 and advanced (junior or senior) standing.
Required of all sociology majors.

SOCI 3260-Quantitative and Qualitative Research Methods

3 hours

Principles and procedures of research methods, sources of data, techniques of collection and analysis of quantitative and qualitative data. Focus on survey research, face-to-face interviews, secondary data sources, participant observation, focus groups, and other sources of data.

Prerequisite(s): SOCI 1510 and advanced (junior or senior) standing.

Required of all BA in sociology majors. A grade of C or better in this course is required for graduation.

\section*{SOCI 3280-Quantitative Data Analysis}

\section*{3 hours}

Role of quantitative methods in social research; application of quantitative techniques and procedures to social data, statistical inference; data processing.

Prerequisite(s): For BS majors: SOCI 3220 or equivalent; for BA majors: SOCI 3260 or equivalent.
Required of all sociology majors. Restricted to sociology majors only.

\section*{SOCI 3300 - Urban Sociology}

3 hours

Rise of the city; ecological distribution and processes; suburb and metropolitan areas; trends in urbanization.

Prerequisite(s): None.

Advised for students planning sociology graduate work.

\section*{SOCI 3330-Social 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.

Prerequisite(s): None.

Advised for students planning sociology graduate work.

\section*{SOCI 3460-Correctional Systems}

\section*{3 hours}

Focuses on prisons and jails. It 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.

Prerequisite(s): SOCI 2100 or equivalent.
Same as CJUS 3400.

\section*{SOCI 3550-Collective Behavior}

3 hours

Human behavior in sporadic and unstructured situations; theories and case studies of rumors, crowds, panics, riots, disasters, fads and crazes; links among collective behavior episodes, social movements and social change.

Prerequisite(s): None.

3 hours

Introduction to the study of human response to disaster events, including political and economic factors influencing vulnerability. Case studies of major disasters are used to explore topics such as the impact of gender, class, ethnicity and age on vulnerability, response, and impacts; the effects of larger political and economic systems on disaster response; and the relationship of disasters to social change.

Prerequisite(s): None.

\section*{SOCI 3600 - The Multiracial Family}

3 hours

Academic study of the dynamics found in multiracial families. Important concepts in race/ethnicity studies such as assimilation, racial identity and pluralism. Other topics include passing, one-drop rule, interracial dating/marriage, bi- or multiracial identity and transracial adoption.

Prerequisite(s): None.

\section*{SOCI 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.

Prerequisite(s): None.

Same as CJUS 3620.

\section*{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.

Prerequisite(s): None.

Same as CJUS 3630.

\section*{SOCI 3700 - Sociology of Religion}

3 hours

Review of the common sociological dimensions of all religions such as moral definitions, group membership and dynamics, prescribed ritual practices and definitions of the sacred. An examination of sociologists contributing to the field such as Durkheim and Weber. Includes a sociological analysis of selected major world religions, including Christianity, Judaism, Islam, Buddhism and Hinduism.

Prerequisite(s): None.

SOCI 3800 - Sociology of Work

3 hours

Social behavior and performance in the workplace beginning at the emergence of the industrial revolution through current workplace arrangements (e.g., work teams). Special topics covered include discrimination in the workplace (e.g., race, age, gender), the relationship between work and family, work alienation, welfare and work, women and work, and unions. Implications for counselors, managers, union organizers, city planners and policy makers.

Prerequisite(s): None.

\section*{SOCI 3900 - Race and Christianity}

3 hours

Focus on the reciprocal influence of race/ethnicity and Christianity in the United States. Explores the historical development of Christianity within different racial groups, evidence about the effects of Christianity on our tendency to engage in racism/discrimination, and the development of multiracial Christian institutions and their influence in our society.

Prerequisite(s): None.

\section*{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 only be taken once for Honors College credit.

\section*{SOCI 4160 - Developing Societies}

\section*{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.

Prerequisite(s): None.
Advised for students planning sociology graduate work.

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

\section*{SOCI 4260 - Topics in Sociology}

3 hours

Investigation, analysis and discussion of a significant, contemporary topic.

Prerequisite(s): None.

May be repeated for credit as topics vary.

\section*{SOCI 4340 - Social Psychology and Behavior in the Social Environment}

3 hours

Social and cultural bases of diverse human behavior; social matrix of personality, organization and disorganization.
Prerequisite(s): None.

Advised for students planning sociology graduate work.

\section*{SOCI 4350 - Community Organization}

3 hours

Principles of community organization and disorganization; agencies and programs dealing with contemporary problems facing the community.
Prerequisite(s): None.

\section*{SOCI 4450 - The Family in Later Life}

3 hours

Later stages in the family life cycle are surveyed with emphasis on changing family composition, role transitions and support systems.

Prerequisite(s): None.

Same as AGER 4450.

\section*{SOCI 4460-Community Corrections}

3 hours

Examines the concept of community corrections from various perspectives. It also examines contemporary practices and trends in probation, parole and other forms of community corrections.

Prerequisite(s): SOCI 2100 or equivalent.

Same as CJUS 4460.

\section*{SOCI 4500 - Sociology of Childhood and Adolescence}

\section*{3 hours}

Practical focus on socialization, parenting and educational strategies in childhood and adolescence, and upon the social factors, agencies and institutions (particularly education) affecting children and adolescents in modern society.

Prerequisite(s): None.

\section*{SOCI 4540 - Race and Ethnic Minorities}

3 hours

Conditions and distribution of race and ethnic minorities; socio-psychological and cultural factors in race and ethnic relations; pattern of relations in the United States with emphasis on the Southwest and on social services.

Prerequisite(s): None.

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.

Prerequisite(s): None.

Same as AGER 4550.

\section*{SOCI 4580 - Immigration and Race in Contemporary U.S.}

\section*{3 hours}

Immigration, the movement of people from their native lands to foreign lands, has become more significant today than ever. It impacts both homelands and non-native lands. In the United States, the immigrant population is growing and its impact has become more noticeable. About 13 percent of the U.S. population is foreign-born. Most of these foreign-born are from non-European countries unlike their previous counterparts who were mostly of European origin. Today, more than 80 percent of immigrants come from Asia, Latin America and the Caribbean. Examines the contemporary immigrant groups, how these immigrants incorporate into American society and ways the U.S. is transformed by their presence. In fact, the United States is no longer a black-white society, but has become a society with multiple racial and ethnic groups.

Prerequisite(s): None.

\section*{SOCI 4600 - Sociology of Mass Communication}

3 hours

Communication as a social process; patterns and institutions of mass communication; analysis of public opinion and propaganda; techniques of public opinion measurement.

Prerequisite(s): None.

\section*{SOCI 4620 - Sociology of Culture}

3 hours

What is culture? How do cultures shape individuals, nations and economies? What kinds of social processes influence cultural production and consumption (art, music, literature, movies, television)? Looks at questions of culture through a sociological lens, and at society through a cultural lens. Most readings are from cultural sociology and the sociology of culture, but anthropology, literary criticism, philosophy and cultural history are also discussed.

Prerequisite(s): None.

3 hours

Patterns of population growth; trends of fertility and mortality; migration; social and economic consequences of population change.
Prerequisite(s): None.

SOCI 4900-Special Problems

1-3 hours

Prerequisite(s): None.

\section*{SOCI 4910-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{SOCI 4920 - Cooperative Education in Sociology}

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 credit in sociology; student must meet the employer's requirements and have consent of the division chair.

May be repeated for credit.

\section*{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.

\section*{SOCI 4990 - Sociology Capstone}

3 hours

Senior sociology majors use their skills and knowledge to develop data-driven senior theses that integrate core sociological concepts, theories and methods. Students are required to find an applied sociology application to their projects.

Prerequisite(s): BS majors: SOCI 3200, SOCI 3220, SOCI 3240, and SOCI 3280 (all with a grade of C or better).
BA majors: SOCI 3200, SOCI 3260, and SOCI 3280 (all with a grade of C or better).
Required of all sociology majors. Senior level sociology majors only.

\section*{Spanish}

\section*{SPAN 1010 - Elementary Spanish}
(SPAN 1311 or SPAN 1411 or SPAN 1511)
3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): None.

SPAN 1020 - Elementary Spanish
(SPAN 1312 or SPAN 1412 or SPAN 1512)
3 hours

Grammar and phonetics; reading, composition and oral-aural practice.

Prerequisite(s): SPAN 1010 or equivalent.

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.

Prerequisite(s): Two years of high school Spanish or equivalent.

May not be taken if credit has been received for SPAN 1010 or SPAN 1020.

SPAN 2040 - Intermediate Spanish
(SPAN 2311)

3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): SPAN 1020 or equivalent.

SPAN 2050 - Intermediate Spanish
(SPAN 2312)
3 hours

Grammar, composition, oral-aural practice and readings.

Prerequisite(s): SPAN 2040 or equivalent.

SPAN 2900 - Special Problems

1-3 hours

Prerequisite(s): None.

\section*{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.

SPAN 3010 - Writing in Spanish: Style and Technique

3 hours

Focus on writing skills and strategies through various forms of composition.

Prerequisite(s): SPAN 3090.

SPAN 3020-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): SPAN 2050 or equivalent.

SPAN 3030 - Readings in Spanish-American Short Story

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.

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.

SPAN 3060 - Advanced Spanish Composition and Oral Practice

3 hours

Composition, oral reports, and Spanish and Spanish-American topics.

Prerequisite(s): SPAN 2050 or equivalent.

SPAN 3070 - Advanced Spanish Composition and Oral Practice

3 hours

Composition, oral reports, and Spanish and Spanish-American topics.

Prerequisite(s): SPAN 2050 or equivalent.

\section*{SPAN 3080 - Advanced Spanish Composition and Oral Practice for Bilinguals}

3 hours

Principles of academic writing, spelling and grammar in Spanish, directed specifically toward bilinguals (Spanish heritage and native speakers). Taught in Spanish.

Prerequisite(s): Demonstrate native or near-native language ability as defined by results of departmental proficiency exam.

\section*{SPAN 3090-Advanced Spanish Grammar I}

3 hours

In-depth study of selected areas of Spanish grammar for third-year students, particularly verbal aspect and mood, spelling and punctuation, and agreement.

Prerequisite(s): SPAN 2050 or equivalent.

\section*{SPAN 3110 - Introduction to 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): SPAN 3090, SPAN 3080 or SPAN 3090.

\section*{SPAN 3120 - Aspects of Contemporary Spanish Culture}

3 hours

Study of specific aspects in Spanish culture, including historical, literary, artistic, political and economic arenas.

Prerequisite(s): 3 hours of advanced (3000- or 4000-level) Spanish or consent of department.

\section*{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.

\section*{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.

\section*{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.

\section*{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.

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.

\section*{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.

\section*{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.

\section*{SPAN 3530 - Spanish for Hotel and Restaurant Management}

\section*{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.

SPAN 3540-Spanish for Travel and Tourism

\section*{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.

\section*{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.

\section*{SPAN 3560 - Spanish for the Medical Professions II}

\section*{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.

\section*{SPAN 3570 - Spanish in the Bilingual Classroom}

\section*{3 hours}

Emphasizes the Spanish language skills needed in the teaching field to communicate with Spanish speaking students and their parents/guardians. Includes specialized vocabulary, scenarios, sample dialogues and information related to a variety of school-related settings.

Prerequisite(s): SPAN 2050 or equivalent.

\section*{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 only be taken once for Honors College credit.

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.

\section*{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.

\section*{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.

\section*{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.

SPAN 4095-Spanish Idiomatic Expressions in Context

3 hours

Study of idiomatic expressions in context as an integral part of communication in Spanish.

Prerequisite(s): 3 hours from SPAN 3060, SPAN 3080, or SPAN 3090.

\section*{SPAN 4120 - Advanced Spanish Grammar II}

3 hours

Pronunciation principles, orthography and punctuation; syntactical, lexical and stylistic aspects.

Prerequisite(s): SPAN 3090.

\section*{SPAN 4150 - Foreign Language Instruction and Assessment}

3 hours

Study of foreign language curriculum, instruction and assessment for future and current teachers of Spanish.
Prerequisite(s): 6 hours of advanced Spanish.
Same as FREN 4150 and GERM 4150.

Designed for students in a teacher preparation program. May not be counted toward a minor in Spanish.

\section*{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.

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.

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.

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.

SPAN 4310 - Survey of Spanish Literature

3 hours

Spanish literature to 1700 . Readings, lectures, discussions and term projects.

Prerequisite(s): SPAN 3110.

\section*{SPAN 4320 - Survey of Spanish Literature}

3 hours

Spanish literature since 1700. Readings, lectures, discussions and term projects.

Prerequisite(s): SPAN 3110.

\section*{SPAN 4330 - Post-Franco Spanish Culture}

3 hours

Study of the culture and lifestyle of the Spanish people since the death of Franco and the country's return to democracy. Readings, discussions and audiovisual materials.

Prerequisite(s): Any SPAN 3000- or 4000- level course or consent of department.

SPAN 4360 - Survey of Spanish-American Literature

\section*{3 hours}

Spanish-American literature from the colonial period to 1888. Readings, lectures, discussions and term projects.
Prerequisite(s): SPAN 3110.

\section*{SPAN 4370 - Survey of Spanish-American Literature}

3 hours

Spanish-American literature since 1888. Readings, lectures, discussions and term projects.

Prerequisite(s): SPAN 3110.

\section*{SPAN 4385 - Hispanic Culture in the United States}

3 hours

The Hispanic historical and cultural presence in the United States through a multidisciplinary approach (film, short fiction, theater, music) including notions of identity and presence within literary and cultural canons focusing on the North/South relations of the American continent. Primary readings, class discussions, exams and student projects are in Spanish.

Prerequisite(s): 3 hours from advanced (3000- or 4000-level) Spanish or consent of department.

\section*{SPAN 4430 - Sexualities in Contemporary Spanish Cinema}

3 hours

Study of sexualities in contemporary Spanish cinema in the light of the socio-political and historical context of Spain, carried out in relation to topics such as gender, identity, class, politics, feminism.

Prerequisite(s): Any SPAN 3000- or 4000- level course or consent of department.

\section*{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.

\section*{SPAN 4900 - Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{SPAN 4910 - Special Problems}

1-3 hours

Prerequisite(s): None.

1-12 hours

Supervised work in a job directly related to the student's major, professional field of study, or career objective.
Prerequisite(s): 12 advanced credit hours in Spanish and declared major; student must meet the employer's requirements and have consent of the department.

May be repeated for credit as topics vary.

\section*{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.

\section*{Special Education}

\section*{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.

\section*{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.

Prerequisite(s): None.

\section*{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 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.

Prerequisite(s): None.
15 hours per term/semester of field-work is arranged.

\section*{EDSP 3300 - Special Education Practicum I}

\section*{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.

Prerequisite(s): 60 hours of undergraduate credit, overall GPA 2.75, all sections of THEA must be passed.

\section*{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.

Prerequisite(s): None.

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.

\section*{EDSP 4110 - Student Teaching in Special Education}

3 hours

Teaching under supervision. See "Student Teaching Program" under College of Education section in the Undergraduate Catalog for details.
Prerequisite(s): Admission to teacher education; all program course work with the exception of (a) student teaching and (b) EDEE 4890. Required for those seeking core subjects EC-6 with special education EC-12 certification. See Student Teaching Program for details. Pass/no pass only.

Pass/no pass only.

\section*{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.

Prerequisite(s): EDSP 3210 or equivalent, EDSP 3240 and admission to teacher education.

\section*{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.

Prerequisite(s): EDSP 3210 or equivalent, EDSP 3240 and admission to teacher education.

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.

Prerequisite(s): EDSP 3210 or equivalent and EDSP 3240 (may be taken concurrently).

\section*{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): Admission to teacher education; all program course work with the exception of (a) student teaching and (b) EDEE 4890. Required for those seeking core subjects EC-6 certification, only. See Student Teaching Program for details.

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.

Prerequisite(s): EDSP 3210 or equivalent, EDSP 3240, EDSP 4340 and admission to teacher education.

\section*{EDSP 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

EDSP 4910 - Special Problems

1-3 hours

Prerequisite(s): None.

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.

\section*{Speech and Hearing Sciences}

\section*{SPHS 1040 - American Sign Language I}
(SGNL 1301 or SGNL 1401 or SGNL 1501)
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.

Prerequisite(s): None.

\section*{SPHS 1050-American Sign Language II}
(SGNL 1302 or SGNL 1402 or SGNL 1502)

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): SPHS 1040 or equivalent.

\section*{SPHS 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.

Prerequisite(s): None.

\section*{SPHS 2020 - Phonetics}

3 hours

The international phonetic alphabet, basic articulatory acoustic phonetic principles, pronunciation rules, segemental and suprasegemental features, and in-class practice of phonetic transcription.

Prerequisite(s): None.

\section*{SPHS 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): SPHS 1050 or equivalent.
(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): SPHS 2040 or equivalent.

\section*{SPHS 2900-Special Problems}

1-3 hours

Prerequisite(s): None.

SPHS 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.

\section*{SPHS 3010-Clinical Methods in Speech-Language Pathology and Audiology}

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.

Prerequisite(s): SPHS 2015 and SPHS 2020.

SPHS 3025-Anatomical Bases of Speech and Hearing

3 hours

Anatomy and physiology of the articulatory, phonatory, respiratory and auditory systems involved in speech production and perception.
Prerequisite(s): None.

\section*{SPHS 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): SPHS 2015, SPHS 2020, MATH 1680 or MATH 1681 (or equivalent), BIOL 1112 (or equivalent), CHEM 1360 (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.

3 hours

Normal language development from birth through adolescence, with consideration of current theories of acquisition, pertinent research and issues related to cultural diversity.

Prerequisite(s): None.

\section*{SPHS 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): SPHS 3030.

\section*{SPHS 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 only be taken once for Honors College credit.

\section*{SPHS 4035 - Introduction to Disorders of Articulation and Phonology}

3 hours

Introduction to the nature, causes and characteristics of articulation and phonological disorders; principles of evaluation and remediation.

Prerequisite(s): SPHS 2020, SPHS 3035.

SPHS 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): SPHS 3035 or equivalent.

\section*{SPHS 4045 - Basic Rehabilitative Audiology}

3 hours

Methods of improving communication skills of the hearing impaired through speech and language training, amplification, speech reading, auditory training and counseling.

Prerequisite(s): SPHS 3040 or equivalent.

SPHS 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): SPHS 3025 or equivalent.

\title{
SPHS 4060 - Clinical Practicum in Speech-Language Pathology and Audiology, Level I
}

3 hours (1;0;2-3)
Guided observation in speech-language pathology and audiology. Students observe actual evaluation and treatment sessions with emphasis on integration and application of class knowledge from previous SPHS courses. SPHS 4060 should be taken in the second to last semester before graduation.

Prerequisite(s): SPHS 3010.

SPHS 4065 - Clinical Practicum in Speech-Language Pathology/Audiology II

3 hours (1;0;2-3)
Students observe/participate in actual clinical service delivery to clients of the UNT Speech and Hearing Center, working with speech-language and audiology clinical faculty and graduate students. SPHS 4065 should be taken in the last semester before graduation.

Prerequisite(s): SPHS 4060.

SPHS 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): SPHS 3030.
May be repeated for credit as topics vary.

\section*{SPHS 4900-Special Problems}

1-3 hours

Problem must be approved by department director.
Prerequisite(s): None.

SPHS 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.

\section*{Studio Art}

\section*{ASTU 1417 - Beginning Watercolor Painting for Non-Art Majors}

3 hours (0;6)

Experimentation with watercolor painting principles, techniques, brush work and materials. Emphasis on problem solving, basic skills, composition and color.

Prerequisite(s): None.

\section*{ASTU 2045 - Digital Fabrication for Non 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 non-art majors, primarily to instruct students in the 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): None.

\section*{ASTU 2050-Beginning Ceramics}
(ARTS 2346)

3 hours (2;4)
Introduction to hand-building and wheel-throwing techniques; decorating and glazing wares.

Prerequisite(s): ART 1440, ART 1450.

\section*{ASTU 2120 - Introduction to Fibers}

3 hours (0;6)

Introduction to 2-dimensional and 3-dimensional techniques in fibers using mixed media, pigments and dye.
Prerequisite(s): ART 1200 or ART 1301, ART 1440, ART 1500.

\section*{ASTU 2130 - Introduction to Weaving}

3 hours (0;6)

Introduction to warping and threading floor looms and hand looms, analyzing patterns and design in color and texture.

Prerequisite(s): ART 1200 or ART 1301, ART 1440, ART 1500.

\section*{ASTU 2150-Metalsmithing and Jewelry I}
(ARTS 2341)

3 hours (2;4)

Design, construction and forming using basic techniques.

\section*{Prerequisite(s): ART 1440, ART 1450.}

\section*{ASTU 2200-Beginning Figure Drawing}
(ARTS 2323)
3 hours (2;4)

Visual observation of the figure and interpretation through various graphic techniques.
Prerequisite(s): ART 1500, ART 1510.

\section*{ASTU 2210 - Painting I}
(ARTS 2316)
3 hours (0;6)

Introduction to canvas painting methods, techniques and concepts.
Prerequisite(s): ART 1440, ART 1450, ART 1500, ART 1510.

\section*{ASTU 2215 - Painting II}

3 hours (2;4)
Further development of painting methods, techniques and concepts on canvas and other surfaces.

Prerequisite(s): ASTU 2210.

\section*{ASTU 2250 - Photography I}
(ARTS 2356)

3 hours (0;6)

Beginning course providing a combination of lecture and studio with an introduction to photographic materials, techniques and digital cameras.

Prerequisite(s): ART 1440 or consent of instructor.
Corequisite(s): Concurrent enrollment in lecture and laboratory required.

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.

ASTU 2255 - Photography II

3 hours (2;4)
Intermediate course providing instruction in use of digital and film cameras, digital and traditional photographic printing, and digital image management.

Prerequisite(s): ASTU 2250.

ASTU 2300 - Introduction to Printmaking Techniques

\section*{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 1440, ART 1450, ART 1500, ART 1510.
For visual arts studies majors only.

\section*{ASTU 2350-Sculpture I}

3 hours (0;6)

Creation of original forms in clay, wood or metal; mold making, casting, construction and direct carving.

Prerequisite(s): ART 1450.

\section*{ASTU 2417 - Beginning Watercolor Painting}

3 hours (0;6)
Watercolor painting on wet and dry papers.

Prerequisite(s): ART 1440, ART 1450, ART 1500, ART 1510.

\section*{ASTU 2450 - Introduction to New Media Art}

\section*{\((0 ; 6)\)}

Introduces new media art as a field of contemporary art practices and art historical systems. New media work is considered in relation to other screen-, time- and code-based art media, from cinema and film to video and sound art. Artistic voice is emphasized over technical skills. Entry review into the new media program is conducted during this course.

Prerequisite(s): ART 1200 or ART 1301, ART 1440, ART 1450, ART 1500, ART 1510.

\section*{ASTU 2460 - Time-Based Media Art}

3 hours (0;6)

Designed to explore variable concepts, techniques and processes for the creation of time-based media artworks. Students develop skills in digital video and audio production and postproduction, as well as traditional film techniques through the exploration of narrative, experimentation, performance, documentary, installation and other screen-based art forms. Artistic voice is emphasized over technical skills. Historical and contemporary works are presented and discussed to provide a context for studio projects.

Prerequisite(s): ASTU 2450. Acceptance into the new media art program through entry review.

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.

\section*{ASTU 3030-Computer Applications in the Visual Arts}

\section*{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 1440, ART 1450, ART 1500 and ART 1510, or consent of instructor.

\section*{ASTU 3050 - Intermediate Ceramics: Wheel Throwing}

\section*{3 hours (2;4)}

Development of wheel-throwing techniques. Clay body formulation, glaze mixing, firing theory and practice.
Prerequisite(s): ASTU 2050.

ASTU 3055 - Intermediate Ceramics: Handbuilding

3 hours (2;4)
Using handbuilding techniques to fabricate ceramic objects. Clay body formulation, glaze mixing, firing theory and practice.

Prerequisite(s): ASTU 2050.

\section*{ASTU 3120 - Fibers: Screen Printing}

3 hours (0;6)

Introduction to a wide range of screen printing processes and techniques.
Prerequisite(s): ART 1200 or ART 1301, ART 1440, ART 1450, ART 1500, ART 1510, ART 2350, and ART 2360.

\section*{ASTU 3125 - Topics in Fibers}

3 hours (0;6)

Various 2-dimensional, 3-dimensional and installation fiber techniques are introduced. Techniques may include netting, machine knitting, felting and various processes of manipulating yarn and cloth with mixed media.

Prerequisite(s): ART 1200 or ART 1301, ART 1440, ART 1450, ART 1500, ART 1510, ART 2350, ART 2360.

\section*{ASTU 3131 - Weaving I}

3 hours (0;6)

Develop additional competence in special areas including 8-harness woven structures, production weaving and AVL looms, using weaving computer programs, Adobe Photoshop, and Adobe Illustrator.

Prerequisite(s): ASTU 2130, ASTU 2200, ASTU 3120.

\section*{ASTU 3135 - Fibers: Alternative Processes}

3 hours (0;6)
An introduction to the study of art processes that create 2-dimensional and 3-dimensional, and installation of "off-loom" structures.

Prerequisite(s): ART 1200 or ART 1301, ART 1440, ART 1450, ART 1500, ART 1510, ART 2350, and ART 2360.

\section*{ASTU 3141 - Surface Design I}

3 hours (0;6)

Developing additional competence in special areas.
Prerequisite(s): ASTU 2120, ASTU 2200, ASTU 3120.

\section*{ASTU 3150 - Intermediate Metalsmithing and Jewelry: Color and Surface}

\section*{3 hours (2;4)}

Design in metal using intermediate processes with an emphasis on color and surface effects.
Prerequisite(s): ASTU 2150.

ASTU 3155 - Intermediate Metalsmithing and Jewelry: Plasticity

3 hours (2;4)
Design in metal using intermediate processes with an emphasis on the plastic deformation of metal.

Prerequisite(s): ASTU 2150.

\section*{ASTU 3160 - Intermediate Metalsmithing and Jewelry: Adornment}

3 hours (2;4)

Design in metal using intermediate processes with emphasis on jewelry.
Prerequisite(s): ASTU 2150, ASTU 3150. Mid-point review administered during the term/semester.

ASTU 3165 - Intermediate Metalsmithing and Jewelry: Technology

3 hours (2;4)

Design in metal using intermediate processes with an emphasis on industrial technologies.

Prerequisite(s): ASTU 2150.

ASTU 3170 - Intermediate Metalsmithing and Jewelry: Mechanisms and Multiples

3 hours (2;4)

Design in metal using intermediate processes with an emphasis on cold connections and production multiples.

Prerequisite(s): ASTU 2150.

ASTU 3200 - Intermediate Figure Drawing

3 hours (2;4)

Human figure in compositions using drawing and painting media.
Prerequisite(s): ASTU 2200.

\section*{ASTU 3210 - Intermediate Painting I}

3 hours (0;6)

Studio work in various media combined with a general review of contemporary painting theories.

\section*{ASTU 3212 - Intermediate Painting II}

3 hours (0;6)

Developing additional competence in special areas. Intermediate review administered at the end of the course.

Prerequisite(s): ASTU 3210.

\section*{ASTU 3215 - Intermediate Drawing Studio}

3 hours (0;6)
Explores themes and issues of drawing using a variety of approaches and media. Classroom assignments and self-directed projects may deal with observation, invention, narrative, and/or conceptual approaches.

Prerequisite(s): ASTU 2200.

This class does not replace ASTU 3200 but can be used as an elective.

\section*{ASTU 3220 - Figure Painting I}

3 hours (0;6)

Painting the human figure from life. Topics to be explored include the craft of painting, strategies of representation, color and light, psychological factors and narrative.

Prerequisite(s): ASTU 2200, ASTU 2215, ASTU 3200.

Intermediate review administered at the end of this course.

\section*{ASTU 3250 - Photography III}

3 hours (2;4)

Advanced techniques in exposure and printing. Introduction to large format digital printing and large format cameras.
Prerequisite(s): ASTU 2250, ASTU 2255.

Selection via the entry review process.

\section*{ASTU 3270 - Darkroom Photography}

3 hours (0;6)

Foundations in film-based photography as contemporary art and photographic printing in the darkroom. Advanced techniques in exposure and printing. Introduction to large format cameras.

Prerequisite(s): ASTU 2255.
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ASTU 3280 - Photography, Sound and the Moving Image

3 hours (0;6)

Examines the intersection between still and moving images and explores the possibilities beyond conventional modes of photographic practice.

Prerequisite(s): None.
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\section*{ASTU 3305 - Artist's Bookmaking}

3 hours (2;4)

Application of the concepts and techniques of bookmaking to create sequential works of art. Emphasis on developing ideas, materials, presentation and basic bookbinding techniques in one-of-a-kind and multiple books.

Prerequisite(s): ART 1440, ART 1450, ART 1500, ART 1510.

\section*{ASTU 3310 - Printmaking: Etching}

3 hours (2;4)
Introduction to concepts and techniques of intaglio printmaking, including various grounds, aquatint, line etching and stage biting. Black and white and color.

Prerequisite(s): ART 1440, ART 1450, ART 1500, ART 1510.

\section*{ASTU 3315 - Printmaking: Monotype Printmaking}

3 hours (2;4)

Introduction to concepts and techniques of monotype printmaking, additive and subtractive painting, and trace techniques with a focus on multiple-color printing.

Prerequisite(s): ART 1440, ART 1450, ART 1500, ART 1510.

ASTU 3320 - Printmaking: Screen Printing

3 hours (2;4)

Introduction to concepts and techniques of water-based screen printing, including hand-drawn stencils and photographic processes.
Prerequisite(s): ART 1440, ART 1450, ART 1500, ART 1510.

\section*{ASTU 3330 - Printmaking: Lithography}

3 hours (2;4)

Introduction to concepts and techniques of lithography, including crayon, washes and photo techniques. Black and white and color.

Prerequisite(s): ART 1440, ART 1450, ART 1500, ART 1510.

\section*{ASTU 3340 - Printmaking: Relief Printmaking}

\section*{3 hours (2;4)}

Introduction to concepts and techniques of relief printmaking. Carving and printing wood, linoleum, and/or polystyrene relief blocks. Black and white and multiple-color printing.

\section*{ASTU 3350-Sculpture II}

3 hours (2;4)

All aspects of 3-dimensional form.

Prerequisite(s): ART 1450, ASTU 2200, ASTU 2350.

\section*{ASTU 3417 - Intermediate Watercolor}

3 hours (2;4)

Conceptual development through transparent paint; work in non-transparent aqua-based media on paper surfaces; historical survey of watercolor.
Prerequisite(s): ASTU 2417.

May be repeated for credit.

\section*{ASTU 3427 - Experimental Topics in Watercolor: Studio I}

3 hours (2;4)

Investigation of alternative formats, subject matter and materials on 2D surfaces using transparent and opaque watercolor.

Prerequisite(s): ASTU 2417.

May be repeated for credit as topics vary.

\section*{ASTU 3437 - Experimental Topics in Watercolor: Studio II}

3 hours (2;4)

Investigation of alternative formats, subject matter and materials on 2D surfaces and 3D forms, using transparent and opaque watercolor.

Prerequisite(s): ASTU 3427.

May be repeated for credit as topics vary.

\section*{ASTU 3450 - Creative Software Programming and Physical Computing}

3 hours (0;6)

Practical, hands-on exploration of physically interactive electronics and basic creative software programming within the context of the arts. Students learn how to interface with objects and installations with the viewers body and ambient stimuli such as motion, light, sound or intangible data. Students experiment with Processing and Arduino to produce interactive artworks such as kinetic sculpture, robotic art, sound installations, light art and performance environments, using audiovisual, networked and tangible media. Engagement with art historical and theoretical context is encouraged. Despite the rigorous technical focus and instructions, artistic voice is emphasized over technical skills.
Midpoint Review is conducted during this course.

Prerequisite(s): ASTU 2460.
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.

\section*{ASTU 3460-New Media Art: Experimental 3D}

3 hours (0;6)

Investigates contemporary sculpture practice from a new media art perspective. Students employ experimental 3D simulations and game engines as art-making tools while investigating the history of Artgames and chance operations in art. Artistic voice is emphasized over technical skills.

Prerequisite(s): ASTU 3450; or consent of instructor.
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.

\section*{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 standing or consent of instructor.

May be repeated for credit as topics vary.

\section*{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): Ceramics majors (ASTU 3055), or Fibers majors (ASTU 3131 or ASTU 3141), or Drawing and Painting majors (ASTU 3212 or ASTU 3220), or Printmaking majors (ASTU 3305 or ASTU 3310 or ASTU 3315 or ASTU 3320 or ASTU 3330 or ASTU 3340), or Sculpture majors (ASTU 3350), or New Media Art majors (ASTU 3460).

Corequisite(s): Ceramics majors (ASTU 4051) or Fibers majors (ASTU 4132 or ASTU 4142), or Drawing and Painting majors (ASTU 4210 or ASTU 4215), or Printmaking majors (ASTU 4300), or Sculpture majors (ASTU 4351), or New Media Art majors (ASTU 4450).

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.

\section*{ASTU 4045 - Digital Fabrication for Art Majors}

\section*{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 1200, ART 1440, ART 1450, ART 1500, ART 1510, ART 2350, ART 2360.

\section*{ASTU 4050 - Advanced Ceramics Studio}

Developing additional competence in special areas.

Prerequisite(s): ASTU 3055.
May be repeated for credit up to a maximum of 12 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.

\section*{ASTU 4051 - Advanced Ceramics Studio I}

3 hours (0;6)

Developing creative, conceptual and technical competencies in ceramics.

Prerequisite(s): ASTU 3050, ASTU 3055.

Corequisite(s): ASTU 4010

May be repeated for credit up to a maximum of 12 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.

\section*{ASTU 4052 - Advanced Ceramics Studio II}

3 hours (0;6)
Continued development of creative, conceptual and technical competencies in ceramics.

Prerequisite(s): ASTU 3050, ASTU 3055.

\section*{ASTU 4053 - Advanced Ceramics Studio III}

3 hours (0;6)
Continued development of creative, conceptual and technical competencies in ceramics.

Prerequisite(s): ASTU 3050, ASTU 3055.

\section*{ASTU 4132-Weaving II}

3 hours (0;6)

Develop additional competence in experimental processes on the loom using 2-dimensional and 3-dimensional techniques.
Prerequisite(s): ASTU 3131.

Corequisite(s): ASTU 4010.

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.

\section*{ASTU 4133-Weaving III}

3 hours (0;6)

Developing additional competence in special areas.
Prerequisite(s): ASTU 4132.

ASTU 4142 - Surface Design II

3 hours (0;6)
Developing additional competence in special areas.

Prerequisite(s): ASTU 3141.

Corequisite(s): ASTU 4010.
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.

\section*{ASTU 4143 - Surface Design III}

3 hours (0;6)

Developing additional competence in special areas.
Prerequisite(s): ASTU 4142.

\section*{ASTU 4150 - Advanced Metalsmithing \& Jewelry Studio I}

3 hours (0;6)

Developing additional competence in special areas.

Prerequisite(s): Successful completion of two 3000-level metalsmithing and jewelry classes. Must pass mid-point review to enter ASTU 4150.

\section*{ASTU 4151 - Advanced Metalsmithing \& Jewelry Studio II}

3 hours (0;6)

Continued development of additional competencies in specialized areas.
Prerequisite(s): ASTU 4150.

ASTU 4152 - Advanced Metalsmithing \& Jewelry Studio III

3 hours (0;6)

Continued development of additional competencies in specialized areas.

Prerequisite(s): ASTU 4151.

\section*{ASTU 4210 - Advanced Painting Studio I}

3 hours (0;6)

Developing additional competence in special areas.
Prerequisite(s): Advanced standing and consent of instructor; AEAH 4812 or AEAH 4813; ASTU 3200; 3 hours from ASTU 3212 or ASTU 3220. Students must have passed intermediate review in painting.

Corequisite(s): ASTU 4010.

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.

\section*{ASTU 4212 - Advanced Painting Studio II}

3 hours ( \(0 ; 6\) )
Developing additional competence in special areas.

Prerequisite(s): ASTU 4210. Students must have passed the intermediate review in painting.

\section*{ASTU 4215 - Advanced Drawing Studio I}

3 hours (0;6)

Develop additional competence in special areas.
Prerequisite(s): Advanced standing and consent of instructor; AEAH 4812 or AEAH 4813; ASTU 32003 hours from ASTU 3212 or ASTU 3220. Students must have passed intermediate review in painting.

Corequisite(s): ASTU 4010.

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.

\section*{ASTU 4217 - Advanced Drawing Studio II}

3 hours (0;6)
Developing additional competence in special areas.

Prerequisite(s): ASTU 4215. Students must have passed intermediate review in painting.

\section*{ASTU 4220 - Figure Painting Studio}

3 hours (0;6)
Developing additional competence in special areas.

Prerequisite(s): ASTU 3212; AEAH 4812 or AEAH 4813; students must have passed intermediate review in painting.

\section*{ASTU 4230 - Hybrid Forms}

3 hours (2;4)

Developing additional competence in special areas.

Prerequisite(s): Students must have passed 3000-level courses in their studio art concentrations.

May be repeated for credit.

\section*{ASTU 4250 - Photography Studio}

3 hours (2;4)

Developing additional competence in special areas.
Prerequisite(s): ASTU 3250. Advanced standing and consent of instructor. Must have passed the mid-point review.

May be repeated for credit.

\section*{ASTU 4260 - Photography and the Web}

3 hours (2;4)

Exploration of current conceptual shifts in photography in the context of web technology. Introduces a diverse set of tools to facilitate engagement with web technology. Focus on empowering artists to use web technology in their creative and professional practice.

Prerequisite(s): ASTU 2250, ASTU 2255, ASTU 3250. Selection into the photography program through the mid-point review process.

\section*{ASTU 4270 - Alternative Photographic Processes}

3 hours (2;4)

Alternate processes in photography with emphasis on hand applied, non-silver photographic emulsions.

Prerequisite(s): ASTU 2250, ASTU 2255, ASTU 3250. Selection into the photography program via the mid-point review.
Not offered every term/semester.

\section*{ASTU 4280 - Photography: Advanced Lighting Techniques}

3 hours (2;4)

Photographic lighting procedures and studio techniques. Completion of a portfolio of images is required.

Prerequisite(s): ASTU 2250, ASTU 2255. Passing mid-point portfolio review.

\section*{ASTU 4290 - Topics in Photography}

3 hours (2;4)
Advanced and comprehensive exploration of selected topics and projects in photography.

Prerequisite(s): ASTU 2250, ASTU 2255, ASTU 3250. Selection into the photography program through the mid-point review process.

May be repeated for credit as topics vary.

\section*{ASTU 4300-Printmaking Studio}

3 hours (0;6)
Developing additional competence in special areas.

Prerequisite(s): Must be a printmaking major, eligible for 4000-level printmaking courses.

Corequisite(s): ASTU 4010.
May be repeated for credit.
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.

\section*{ASTU 4301 - Undergraduate Works on Paper}

3 hours (0;6)

Undergraduate level artworks on/of paper employing processes previously developed in a selected area of competency. Exploring larger contexts of works on paper as related to drawing, painting, photography, printmaking, collage, sculpture, etc. within the context of a professional studio art practice.

Prerequisite(s): Completed 3 hours of any of the following courses: ASTU 3200, ASTU 3250, ASTU 3305, ASTU 3310, ASTU 3315, ASTU 3320, ASTU 3330, ASTU 3340, or consent of instructor.

May be repeated for credit as topics vary.

\section*{ASTU 4302 - Undergraduate Printmaking Remote Research}

\section*{3 hours (0;6)}

Undergraduate level experiences at a pre-approved printmaking workshop or other pre-approved substantial printmaking experience. Formalizes the off-campus opportunity into a series of projects that focus on demonstrating new technical skills, presenting awareness of contemporary practices, documentation of professional development, and participating in professional networking opportunities.

Prerequisite(s): Consent of instructor.

May be repeated for credit as topics vary.

\section*{ASTU 4305 - Advanced Artist's Bookmaking}

3 hours (2;4)

Advanced application of the concepts and techniques of bookmaking to create sequential works of art. Emphasis on developing ideas, materials, presentation and basic bookbinding techniques in one-of-a-kind and multiple books.

Prerequisite(s): ASTU 3305.

\section*{ASTU 4310 - Printmaking: Advanced Etching}

3 hours (2;4)

Exploration of concepts and techniques of intaglio printmaking, including classic and experimental techniques.

Prerequisite(s): ASTU 3310. Selection into the printmaking program through the mid-point review process.
May be repeated for credit.

\section*{ASTU 4315 - Printmaking: Advanced Monotype}

3 hours (2;4)

Advanced exploration of concepts and techniques of monotype printmaking. Classical and experimental techniques are used with special
emphasis on seriality and the multiple.

Prerequisite(s): ASTU 3315.

\section*{ASTU 4320 - Printmaking: Advanced Screen Printing}

3 hours (2;4)

Exploration of concepts and techniques of water-based screen printing, including hand-drawn, photographic and experimental techniques.

Prerequisite(s): ASTU 3320. Selection into the printmaking program through the mid-point review process.

\section*{ASTU 4330 - Printmaking: Advanced Lithography}

3 hours (2;4)

Exploration of concepts and techniques of lithography, including classical and experimental techniques.

Prerequisite(s): ASTU 3330. Selection into the printmaking program through the mid-point review process.

\section*{ASTU 4340 - Printmaking: Advanced Relief Printmaking}

3 hours (2;4)
Exploration of concepts and techniques of relief printmaking. Classical and experimental techniques are used with special emphasis on seriality and the multiple.

Prerequisite(s): ASTU 3340. Selection into the printmaking program through the mid-point review process.

\section*{ASTU 4350 - Advanced Sculpture Studio}

3 hours (0;6)

Developing additional competence in special areas.

Prerequisite(s): ASTU 3350.

May be repeated for credit up to a maximum of 12 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.

\section*{ASTU 4351 - Advanced Sculpture Studio I}

3 hours (0;6)

Developing additional competence in special areas.

Prerequisite(s): ASTU 3350.
Corequisite(s): ASTU 4010.

May be repeated for credit up to a maximum of 12 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.

\section*{ASTU 4352 - Advanced Sculpture Studio II}

\section*{3 hours (0;6)}

Developing additional competence in special areas.
Prerequisite(s): ASTU 3350.

\section*{ASTU 4353 - Advanced Sculpture Studio III}

3 hours (0;6)
Developing additional competence in special areas.

Prerequisite(s): ASTU 3350.

\section*{ASTU 4417 - Advanced Watercolor Studio}

3 hours (0;6)

Developing additional competence in special areas.

Prerequisite(s): ASTU 3200; AEAH 4812 or AEAH 4813; 3 hours from ASTU 3417 and 3 hours from ASTU 3427 or ASTU 3437. Students must have passed mid-point review in watercolor.

\section*{ASTU 4450 - Topics in New Media Art}

\section*{3 hours (0;6)}

Advanced new media art topics course designed to explore variable concepts and processes in new media art making.

Prerequisite(s): ASTU 3460; or consent of instructor.
Corequisite(s): ASTU 4010.

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.

\section*{ASTU 4460 - Advanced New Media Art}

3 hours (0;6)
Students in this repeatable studio course execute an advanced media-based project or series for exhibition. Students conceive project concepts independently or collaboratively, working in a self-directed, autonomous manner. Topics may include artgames, performance, animation, sculpture, video, interactive art, conceptual art, new media art and installation. Students have access to the full range of new media program facilities, software and equipment. Artistic voice is emphasized over technical skills. Exit review takes place during second enrollment of course.

Prerequisite(s): ASTU 3460.

Corequisite(s): ASTU 4010.

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.

\section*{Teach North Texas}

\section*{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.

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.

\section*{TNTX 1300 - Secondary Teacher Education Preparation I and II: Inquiry-Based Lessons}

\section*{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.

\section*{TNTX 3100 - Conceptual Algebra and Geometry}

3 hours

Patterns, relationships, proportional reasoning, linear modeling, polynomials, exponential modeling, quadratic modeling, systems of equations, surface area, volume, and the Pythagorean Theorem. Emphasizes hands-on learning and technology and provides content knowledge in mathematics in grades 8-12.

Prerequisite(s): TNTX 1200, or TNTX 1300, and EDSE 3500 (may be taken concurrently), and MATH 1650.

\section*{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 EDSE 3500 (may be taken concurrently).

\section*{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.

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.

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.

\section*{Technical Communication}

\section*{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.

Prerequisite(s): None.
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.

TECM 1312 - Introduction to Academic Writing for International Students

3 hours

Teaches students to think critically and creatively while learning to analyze the modes of communication representative of the American university. Students read academic texts, work collaboratively with their classmates and learn to communicate effectively within the academy. Includes a research component.

Prerequisite(s): None.
May be substituted for ENGL 1310 by international students only.

Core Category: Communication (English Composition and Rhetoric)

TECM 1322 - Introduction to Academic Writing for International Students

3 hours

Continuation of TECM 1312. Teaches students to write and think critically and creatively while learning to analyze the modes of communication representative of the American university. Students read academic texts, work collaboratively with their classmates and learn to write effectively within the academy. Includes a research component.

Prerequisite(s): TECM 1312 or equivalent.
May be substituted for ENGL 1320 by international students only.
Core Category: Communication (English Composition and Rhetoric)

TECM 1500 - New Media for Your College Career

3 hours

Discovering how new media, including blogs, wikis, Facebook, Twitter, and Second Life, have evolved into useful forms of communication to help learning as a college student.

Prerequisite(s): None.
Core Category: Component Area Option

TECM 1700 - Introduction to Professional, Science, and Technical Writing

\section*{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.

Prerequisite(s): None.
Core Category: Communication (English Composition and Rhetoric)

\section*{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)

TECM 2702 - Technical Writing for International Students

3 hours

Expository writing, especially for science, pre-engineering and business students.

Prerequisite(s): TECM 1312 or the equivalent.
May be substituted for ENGL 1320 in some programs by international students only; students should consult advisors in their major.

\section*{TECM 3000-Teaching Technical Communication in the High School}

3 hours

Prepares students to teach technical communication in high schools. Emphasizes the writing and teaching of the major genres of technical communication: correspondence, resumes, reports, proposals and instructions.

Prerequisite(s): None.

TECM 3100-Commercial Publications for High-Tech Industries

\section*{3 hours (3;1)}

Learning and applying theoretically-driven strategies for producing commercial publications for high-tech industries. Designing visual information using industry-standard software.

Prerequisite(s): None.

TECM 3200-Information Design for Electronic Media

3 hours (3;1)

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): None.

\section*{TECM 3500 - Digital Media for Professional Communication}

3 hours
Explores emerging technologies used in technical and professional communication. Focuses on a diverse set of communication technologies and tactics for effectively using them in professional and workplace settings. Combines theory and practice to prepare students to use digital tools, such as collaborative communication technologies and social media, in the workplace.

Prerequisite(s): Junior standing and completion of UNT core communication requirement or consent of department.

\section*{TECM 3550 - Content Strategy and Social Media in Technical Communication}

3 hours
Introduction to the theories and methodologies associated with content strategy for social and 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): None.

\section*{TECM 4100 - Writing Grants and Proposals}

3 hours

Provides a foundation in grant seeking and writing. Focuses on each component of the grant writing process: identifying appropriate revenue streams, developing fundable themes, writing specific work plans and budgets, and understanding the review process.

Prerequisite(s): TECM 2700 or consent of the department.

\section*{TECM 4180 - Advanced Technical Writing}

\section*{3 hours}

Practical application of technical-writing theory and style in industry, business and the sciences.
Prerequisite(s): TECM 2700 is recommended.

\section*{TECM 4190-Technical Editing}

3 hours

The editing of drafts of technical manuals and other technical reports; the design of technical reports. Experience in applying rules governing technical-writing style.

Prerequisite(s): TECM 2700 is recommended.

\section*{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 realworld 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): None.

\section*{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 is recommended.

TECM 4300 - Usability and User Experience in Technical Communication

\section*{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 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.

\section*{TECM 4700 - Writing in the Sciences}

\section*{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.

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):

May be repeated for credit when topics vary for up to 6 hours.

\section*{TECM 4900-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{TECM 4910-Special Problems}

1-3 hours

Prerequisite(s): None.

\section*{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): 12 semester hours credit in English and/or technical communication; student must meet employer's requirements and have consent of the department chair.

May be repeated for credit.

\section*{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): Must be taken in the semester the student will graduate. Technical communication majors only.

\section*{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.

\section*{Theatre}

\section*{THEA 1030 - Lighting and Sound I}

\section*{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): None.

\section*{THEA 1043-Costume I}

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): None.
Required for theatre majors.

\section*{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): None.

\section*{THEA 1050 - Acting: Fundamentals}
(DRAM 1351)

3 hours (3;2)

Explores and applies basic principles of acting. Topics include terminology, scene and character analysis, the inner process, exercises and improvisation.

Prerequisite(s): None.

\section*{THEA 1130 - Introduction to Creative Drama in the Elementary School}

1 hour

Introduction to current philosophies, principles and techniques of creative drama in the elementary school. Emphasis on development of the individual child through use of dramatic play, improvisation and theatre games. Includes lecture, discussion, group facilitation, peer teaching and practical performance work.

Prerequisite(s): None.

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): None.

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.

Prerequisite(s): None.

Core Category: Creative Arts

THEA 1375 - The Actor and the Text

3 hours (3;2)
Principles and practices governing the craft of theatre performance relative to the content within the dramatic texts. Acting as a manifestation of historical and cultural ideals with emphasis on a developing appreciation for the literary masterpieces of world theatre.

Prerequisite(s): None.

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): None.

\section*{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): None.

\section*{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): THEA 1700 or consent of department.
(DRAM 2336)

3 hours (3;2)
Principles and practices governing the use of the voice and speech for theatrical and filmic performances. Contemporary systems of vocal and speech preparation.

Prerequisite(s): None.

Required for theatre majors whose concentration is performance.

\section*{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): None.

Same as DANC 2095.

May be repeated for credit.

\section*{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.

Prerequisite(s): None.

May not be counted toward a major or minor in theatre. May be repeated for credit when the productions vary.

\section*{Core Category: Creative Arts}

\section*{THEA 2351 - Theatre Movement I}
(DRAM 1322)
3 hours (3;2)

Principles and practices governing the use of the actor's body for theatrical and filmic performances. Emphasis on the dynamics and the therapeutic aspects of movement as a means of exploring and expressing thoughts or feelings, and on periods and styles of movement. Study of the theories and techniques of Rudolf von Laban. Coordinated performance with voice, body and musical accompaniment. Development of mime, pantomime and stage combat techniques.

Prerequisite(s): None.

Required for theatre majors whose concentration is performance.

\section*{THEA 2360 - Repertory Theatre I}

\section*{3 hours (1;4)}

Principles and practices governing performance and technical activities in a professionally oriented summer repertory theatre.

Prerequisite(s): None.

Students may enroll four times for credit, but no more than 6 semester hours may be used toward a major in theatre and no more than 3 semester hours toward a minor in theatre.

\section*{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 and on crew assignments for theatrical productions.

Prerequisite(s): None.

\section*{THEA 2900-Special Problems}

\section*{1-3 hours}

Prerequisite(s): None.

\section*{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.

\section*{THEA \(\mathbf{3 0 3 0}\) - 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.

Prerequisite(s): None.

Core Category: Creative Arts

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.

Prerequisite(s): None.

\section*{Core Category: Creative Arts}

\section*{THEA 3050 - Acting: Realism}

3 hours (3;2)
Practical exploration of theories and methods of building a character. Utilization of numerous approaches including improvisation, emotional and sense memory, actions and objectives, character analysis, and the application of these techniques to text. Advanced script analysis and demonstration of acting proficiency required.

Prerequisite(s): THEA 1050, THEA 2051 and THEA 2351.
May be repeated for credit.

\section*{THEA 3060 - Non-Western Theatre and Drama}

3 hours

Selected studies in theatre forms and texts of the cultures of Japan, China, Indonesia, Southeast Asia, India, Africa and the Middle East. Advanced script and character analysis required. Lecture, student presentations and a research project.

Prerequisite(s): THEA 1440.

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): None.

\section*{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): THEA 2095.

May be repeated for credit.

\section*{THEA 3100-Directing I}

3 hours (3;2)
Directing theatrical productions. Analysis of play and film scripts, composition and movement, business and pantomime, coaching the actor, production staff development and management, rehearsal techniques. Written examination on a selected bibliography about theatrical directing.

Prerequisite(s): THEA 1050, THEA 1440, THEA 2051, THEA 2351, THEA 3030, THEA 3050 and junior or senior standing.

\section*{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): THEA 1030 or consent of department.

\section*{THEA 3140 - Acting: Styles and Periods}

\section*{3 hours (3;2)}

Application of characterization techniques to period styles, including physical farce, comedy of manners, absurdism and dark comedy. Demonstration of acting proficiency. Written examination on a selected bibliography about acting.

Prerequisite(s): THEA 1050, THEA 1440, THEA 2051, THEA 2351, THEA 3030, and THEA 3050.
May be repeated for credit.

\section*{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): THEA 1043 or consent of department.

\section*{THEA 3146-Stagecraft II}

3 hours (3;2)
Intermediate study of scenery and properties construction and drafting.

Prerequisite(s): THEA 1046 or consent of department.

\section*{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): THEA 1280 or consent of department.

\section*{THEA 3351 - Theatre Movement II}

3 hours (3;2)
Advanced study of movement techniques for the classical and nonrealistic theatre. Emphasis on movement vocabulary and intense physical training in relaxation, alignment, conditioning and stage presence. Application to characterization and performance.

Prerequisite(s): THEA 2351.

\section*{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): None.

\section*{THEA 3910 - Directors' Ensemble}

1 hour \((1 ; 4)\)
Principles and practices of character development governing stage performance. Students audition, participate in directing exercises, classical and contemporary scenes and theatre creation exercises.

Prerequisite(s): None.
May be repeated for credit.

\section*{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 only be taken once for Honors College credit.

\section*{THEA 4000-Musical Theatre Acting}

3 hours (3;1)
History and evolution of musical theatre in the 20th century. Practical experience in auditioning, rehearsing and performing. Demonstration of acting proficiency required.

Prerequisite(s): THEA 1050, THEA 2051, THEA 2351, THEA 3050.
May be repeated for credit.

\section*{THEA 4095 - Stage Production III}

\section*{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): THEA 2095 and THEA 3095, or consent of department.
Same as DANC 4095.

May be repeated for credit.

\section*{THEA 4100 - Directing II}

3 hours (3;2)
Theories and production techniques for selected styles, periods or genres of dramatic literature. Written examination on a selected bibliography about styles of directing for selected styles, periods or genres of dramatic literature.

\section*{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): THEA 1701 or consent of department.

\section*{THEA 4130 - Lighting III: Design}

3 hours (3;3)

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): THEA 1030, THEA 1700, THEA 1701, THEA 3130 or consent of department.

\section*{THEA 4140-Acting: Shakespeare}

3 hours (3;2)

Principles and practices of physical and vocal characterization, mental agility, rhetorical dexterity and empathetic imagination required by the creation of characters in Shakespeare's plays. Study of Elizabethan theatre and its verbal conceits. Special attention paid to making classical language and situations relate to contemporary cultures. Demonstration of acting proficiency required.

Prerequisite(s): THEA 1440, THEA 3030, THEA 3050.
May be repeated for credit.

\section*{THEA 4143-Costume III: Design}

3 hours (3;2)

Theories and styles of costume design for stage presentation. Techniques of analysis, interpretation, drawing, rendering and organizing.

Prerequisite(s): THEA 1043, THEA 1700, THEA 1701, THEA 3070, or consent of department.

\section*{THEA 4146 - Stagecraft III: Design}

3 hours (3;2)
Design principles applied to theatrical scenery and properties; drafting of ground plans and sections, rendering and model building, theoretical application on many different types of theatrical productions including drama, musicals, dance and opera.

Prerequisite(s): THEA 1046, THEA 1700 , THEA 1701, THEA 3070, THEA 3146 or consent of department.

\section*{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): THEA 1030 or consent of department.

\section*{THEA 4240-Theatre in the Classroom}

\section*{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): None.

\section*{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): THEA 1440 or consent of department.
Attendance at selected performances is required.

\section*{THEA 4310-Acting for the Camera}

\section*{3 hours (3;1)}

Study of acting techniques required for commercial, soap, film and television productions. Methods and styles of acting in relation to the script, the environment and technical personnel.

Prerequisite(s): THEA 3050.

May be repeated for credit.

\section*{THEA 4350-Senior Seminar}

\section*{3 hours (3;1)}

Capstone course involving intensive study of aesthetic principles, values, philosophy, creative process, criticism, activism and advocacy within the profession. Through self-discovery, discussion, readings, arts experiences, professional interactions and exchange of ideas, this course focuses on transitions and the parameters of preparation and responsibility as students investigate career options, professional and personal goals, continuing education and individual life choices. Essential to this process is that each student analyze and synthesize knowledge and skills in preparation for planning for a future. The course meets regularly as a seminar and at laboratory events within the profession. This course meets the criteria for the Honors Capstone Course.

Prerequisite(s): 90 hours of college-level courses, and must be within final two semesters of completion of theatre major.

\section*{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. Demonstration of skill required.

Prerequisite(s): THEA 3050.

May be repeated for credit.

\section*{THEA 4360 - Repertory Theatre II}

3 hours (3;2)

Principles and practices governing the management of a professionally oriented summer repertory theatre program.

Prerequisite(s): THEA 2360, upper-division or graduate status.
Students may enroll four times for credit, but no more than 6 semester hours may be used toward a major in theatre or a teaching field in theatre; no more than 3 semester hours may be used toward a minor in theatre.

\section*{THEA 4370-Contemporary Chicana/Chicano Theatre}

3 hours

Reading and critical examination of Chicana/Chicano dramatic literature from the late 1960s to the present day, including discussion of leading Chicana/Chicano playwrights, historical experiences, and the theatre groups that contributed to a professionally-oriented Chicana/Chicano theatre in the U.S. Designed for those interested in both production and criticism.

Prerequisite(s): None.

\section*{THEA 4380-Gay/Lesbian Plays and Performance After 1960s}

3 hours

Survey of gay and lesbian plays and performance after 1960s 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): None.

\section*{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): Upper-level standing.

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): None.

\section*{THEA 4400-Theatre Symposium}

\section*{1 hour}

Study of and practical involvement with the process of creating and producing theatre as experienced by visiting professionals such as actors, directors, designers, dancers, artistic directors, arts managers, union officials, producers, agents and casting directors.

Prerequisite(s): None.

May be repeated for credit up to a maximum of 3 hours.

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): None.

May be repeated twice for credit, but no more than 3 hours may be counted toward a major in theatre.

\section*{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): None.

May be repeated for credit as topics vary.

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 based on audition process.
May be repeated for credit as topics vary.

THEA 4900-Special Problems

1-3 hours

Prerequisite(s): None.

Problems must be approved by the department chair.

\section*{THEA 4910-Special Problems}

1-3 hours
Prerequisite(s): None.

Problems must be approved by the department chair.

\section*{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.

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.

\section*{University Courses}

\section*{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.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.

May be repeated for credit as topics vary.
Core Category: Discovery

UCRS 2100 - Career Development

1 hour

Course 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.

Prerequisite(s): None.

Pass/no pass only.

UCRS 2900-Special Problems

1-3 hours
Prerequisite(s): None.

\section*{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.

Prerequisite(s): Junior standing and admission to Ronald E. McNair Program.
May be repeated for credit. Offered summer term only.

UCRS 3600 - Leadership for a Global Society

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.

Prerequisite(s): Sophomore or junior standing and consent of department.

\section*{UCRS 3610 - Leadership in Practice}

3 hours

Examines and develops personal leadership skills and career skills to become more effective leaders on campus, in the community and in professional careers. Explores leadership dynamics in a group setting while learning about impacting the global community.

Prerequisite(s): UCRS 3600.

UCRS 4000-Science in Ancient and Modern Times

3 hours

Seminars, guest lecturers and readings addressing major advances in science from a technological, philosophical and historical prospective.

Prerequisite(s): None.
Meets with URCS 5000.

\section*{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.

\section*{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): ECON 1100, ECON 1110, PSCI 1040, PSCI 1050, HIST 2610, HIST 2620, GEOG 2170 and GEOG 1200 or equivalents.

UCRS 4800-College of Arts and 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.

Pass/no pass only. May be repeated for credit.

UCRS 4900 - Special Problems

1-21 hours

Prerequisite(s): None.

\section*{Women's and Gender Studies}

\section*{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.

Prerequisite(s): None.
Core Category: Component Area Option

WGST 2420 - Race, Class, Gender and Ethnicity

3 hours

Social, cultural and economic perspectives on Native, African, Asian and Mexican Americans. Emphasizes work and family patterns for both women and men, racism and sexism and contemporary movements for equality.

Prerequisite(s): None.
Same as SOCI 2010.

\section*{WGST 2900 - Special Problems}

1-3 hours

Prerequisite(s): None.

WGST 3500 - Feminist Foundations: Friedan to the Present

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.

Prerequisite(s): None.

WGST 3520 - Psychological Dynamics of Women

3 hours

Comparison of personality and cultural factors associated with gender.

Prerequisite(s): None.

Same as PSYC 3490.

WGST 3720 - Women's Literature

3 hours

Studies in literature written by or about women.

Prerequisite(s): None.

Same as ENGL 3924.

May be repeated for credit as topics vary up to a maximum of 6 hours.

\section*{WGST 4100 - Feminist Theories and Contemporary Issues}

3 hours

Historical overview, key concepts and vocabulary of feminist theory in social and political contexts. Current and emerging bodies of feminist theory are used to define contemporary issues and debates in feminist terms, and to initiate discussion on wide-ranging social, political and global issues from a variety of feminist perspectives.

Prerequisite(s): WGST 2100 or consent of department.

\section*{WGST 4200 - Contemporary Issues in Global Feminisms}

3 hours

Explores a range of contemporary women's issues from a transnational feminist perspective. Includes readings that offer both theoretical and strategic approaches to women's human rights issues, gendered law, cultural difference, legacies of colonialism, religious fundamentalism, economic globalization and women's roles in military conflict.

Prerequisite(s): None.

WGST 4240 - Latinas Today

3 hours

Gender and cultural issues related to identity construction of Latinas and Latinos during the past thirty years. Focused primarily on women, issues include those related to gender-coded identity and sexual preference (including pre-Columbian notions of sexuality), machismo and marianismo, and immigration. Demographic patterns of Mexican-American, Puerto Rican and Cuban populations as they relate to the creation of Latinas and Latinos as a cultural denomination.

Prerequisite(s): None.

\section*{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.

Prerequisite(s): None.
May be repeated for credit as topics vary.

\section*{WGST 4300 - Communication Theories of Sexuality}

\section*{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 hetornormativity, homonormativity, heterosexual and queer sexualities, as well as performances of masculinity and femininity.

Prerequisite(s): Communication studies majors must complete COMM 3010 prior to enrolling; minors and other majors must complete COMM 2140 or WGST 2100.

Same as COMM 4540.

\section*{WGST 4460 - History of Black Women in America}

3 hours
Historical exploration into the characteristics, cultures and reflective thoughts of black women in America.

Prerequisite(s): None.
Same as HIST 4455.

\section*{WGST 4800 - Professional Internship}

\section*{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.

\section*{WGST 4900 - Special Problems}

1-3 hours

Prerequisite(s): None.```


[^0]:    Advanced Placement language and composition exams
    3.0 or higher on both sections

[^1]:    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 Arts and Sciences.

[^2]:    Only two attempts will be allowed for each biology and biochemistry course in the degree. A minimum 2.5 grade point average in all science and mathematics courses, a minimum 2.5 grade point average for upper-division courses in the sciences, 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

[^3]:    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 Arts and Sciences.

[^4]:    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.

[^5]:    In addition to BCIS 2610, ACCT 2010 - ACCT 2020 and DSCI 2710, each BBA degree plan requires the following 24 semester hours of basic foundation courses in business administration.

[^6]:    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.

