Requirements for German Teaching Field: GERM 1010, 1020, 2040, 2050, 3060 or 3070; 6 hours of 4000 -level German courses; 15 hours of 3000 - or 4000 -level German courses.

Requirements for Spanish Teaching Field: SPAN 1010, 1020, 2040, 2050, 3060 and 3070 or 3080 and 3 advanced hours of approved course work; 9 hours from SPAN 3040, 3150, 3160, 4010, 4020, 4070, 4080, 4090, 4120, 4210, 4330; 3 hours from SPAN 3030, 3050, 3110; 6 hours from SPAN 4310, $4320,4360,4370$; must pass the Texas Oral Proficiency Test (TOPT) for Spanish.

Students must also complete the required 21 hours in upper-level education courses (EDSE 3800, $3830,4060,4070,4108,4118,4840)$ 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.sbec.state.tx.us.

## Bilingual Education Concentration

Interested students should consult with the Department of Teacher Education and Administration in the College of Education for further information.

## Certificate in Professional French

This certificate requires 12 hours of advanced French, including two courses in professional French chosen from FREN 3100 (French for Tourism), FREN 4080 (Business French) and FREN 4400 (Translation Theory and Practice); and two other French courses at the 3000 or 4000 level.

## Graduate Degrees

The department offers major work in French and Spanish in a Master of Arts degree program. For information, consult the Graduate Catalog.

## Courses of Instruction

All Courses of Instruction are located in one section at the back of this catalog.

## Course and Subject Guide

The "Course and Subject Guide," found in the Courses of Instruction section of this book, serves as a table of contents and provides quick access to subject areas and prefixes.

# Department of Geography 

Main Departmental Office<br>Environmental Education, Science and Technology<br>Building, Room 210<br>P.O. Box 305279<br>Denton, TX 76203-5279<br>940-565-2091<br>Fax: 940-369-7550<br>E-mail: geog@unt.edu<br>Web site: www.geog.unt.edu<br>Paul Hudak, Chair

## Faculty

Professors Acevedo, Ferring, Hudak. Associate Professors Lyons, McGregor, Nagaoka, Oppong, Williams. Assistant Professors Dong, Rice, Wolverton.

## Introduction

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 administration, 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; or take courses for general interest.

Geography courses are divided into two subfields: regional science and earth science. Regional science involves the study of the organization of human activity (particularly, the economic, sociopolitical 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

The department offers two undergraduate programs and a graduate program in the following areas:

- Bachelor of Arts, and
- Bachelor of Science, both with a major in geography; and
- Master of Science with a major in applied geography.

Concentrations at the undergraduate level are available in earth science and regional science.

## Bachelor of Arts with a Major in Geography

Degree 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 "General University Requirements" in the Academics section of this catalog and the College of Arts and Sciences requirements.
2. Major Requirements: 36 hours including completion of GEOG 1170 or 1200, GEOL 1610 or GEOG 1710, GEOG 3190 and 4800; three techniques courses from GEOG 4050, 4060, 4170, 4400, $4500,4520,4550$ and 4560 ; and five advanced topics courses selected from Groups A and B. At least two courses must be selected from each group.

GEOG 4900 and 4920 can be applied to the techniques group, topics Group A or topics Group B.
Group A: Earth Science. GEOG 4030 (6 hours: counts as one course in Group A and one course in Group B), 4240, 4250, 4350 and 4750; GEOL 3000, 3020, 4630, 4650, 4710 and 4850.
Group B: Regional Science. GEOG 3010, 3100, 3750, 3800, 4030 ( 6 hours: counts as one course in Group A and one course in Group B), 4040 ( 6 hours: counts as two courses in Group B), $4120,4210,4220$, 4410 and 4420.
3. Other Course Requirements: None.
4. Minor: Optional.
5. Electives: See four-year plan.

## BA with a Major in Geography

The following four-year plan is one example of a variety of ways in which you can complete your chosen degree in four years, and will serve as guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.
The College of Arts and Sciences expects you to have completed the State recommended high school program and be ready to enroll for Language 2040 or a mathematics course above college algebra. If you are not prepared for this level, the necessary prerequisites will either replace electives or increase the hours required for the degree.

## FRESHMAN YEAR

FALL
HOURS
ENGL 1310, College Writing I, or ENGL 1313, Computer Assisted College Writing I*
GEOG 1170, Culture, Environment and Society, or GEOG 1200, World Regional Geography (GEOG 1200 is recommended)
LANG 2040, Foreign Language (intermediate, may be used to satisfy a portion of the Understanding the Human Community requirement) ${ }^{* *}$
MATH (above College Algebra, except 1350)**
PSCI 1040, American Government*
Total
SPRING
HOURS
ENGL 1320, College Writing II, or ENGL 1323, Computer Assisted College Writing II*
GEOG 1710, Earth Science, or GEOL 1610, Introductory Physical Geology (may be used to satisfy a portion of the Natural Science requirement) ${ }^{* *}$
LANG 2050, Foreign Language
(intermediate, may be used to satisfy a portion of the Understanding the Human Community requirement) ${ }^{* *}$
PSCI 1050, American Government* 3
Visual and Performing Arts* $\underline{3}$
Total 15
SOPHOMORE YEAR
FALL HOURS
HIST 2610, United States History to 1865* 3
Elective 3
Elective 3
Humanities* 3
Physical Science** $\quad \underline{3}$
Total 15

SPRING
HOURS
HIST 2620, United States History Since 1865* 3
Geography Group A (advanced)

| Elective | 3 |
| :---: | :---: |
| Elective | 3 |
| Laboratory Science** | $\underline{3}$ |
| Total | 15 |
| JUNIOR YEAR |  |
| FALL | HOURS |
| GEOG 3190, Quantitative Methods in Geography | 3 |
| Geography Techniques (advanced) | 3 |
| Elective (advanced) | 3 |
| Elective | 3 |
| Social and Behavioral Sciences* (GEOG 1170, Culture, Environmen Society recommended) | and $\underline{3}$ |
| Total | 15 |
| SPRING | HOURS |
| Geography Group A or B (advanced) | 3 |
| Geography Group B (advanced) | 3 |
| Elective (advanced) | 3 |
| Elective | 3 |
| Elective | 3 |
| Total | 15 |
| SENIOR YEAR |  |
| FALL | HOURS |
| Geography Group A (advanced) | 3 |
| Geography Techniques (advanced) | 3 |
| Geography Techniques (advanced) | 3 |
| Elective | 3 |
| Elective | 3 |
| Total | 15 |
| SPRING | HOURS |
| GEOG 4800, Applied Geography | 3 |
| Geography Group B (advanced) | 3 |
| Elective (advanced) | 3 |
| Elective (advanced) | 3 |
| Elective | 3 |
| Total | 15 |
| *See the University Core Curriculum section of this catalog for approved list of course options. ** See Arts and Sciences degree requirements section of this catalog for approved list of course options. |  |
| Actual degree audits may vary depending on availability of courses in a given semester. <br> Some courses may require prerequisites not listed. Students may wish to use opportunities for electives to complete a minor of their choice. |  |
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|  |  |

## Bachelor of Science with a Major in Geography

## Degree Requirements

1. Hours Required and General/College Require-
ments: 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.
2. Major Requirements: Completion of two of the following course groups, in addition to the courses required for the Bachelor of Arts with a major in geography. The two course groups (four courses in total) can be substituted for the foreign language requirement of the Arts and Sciences degree requirements.
Group I - Computer Programming and Information Systems. Any two of the following: CSCE 1020, Program Development, 4 hours; BCIS 3610, Basic Information Systems, 3 hours; GEOG 4560, Visual Programming for Geographic Information Systems, 3 hours.

Group II - Mathematics. Two courses (excluding MATH 1350), each at least 3 hours, in addition to the college requirement for meeting the Arts and Sciences degree requirements.
Group III - 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 III courses may be from different departments (for example, one in physics and one in chemistry).
3. Other Course Requirements: None.
4. Minor: Optional.
5. Electives: See four-year plan.

## Concentrations

Students who wish to concentrate in earth science should select three courses from Group A and two courses from Group B as listed under the BA with a major in geography, and students who wish to concentrate in regional science should select two courses from Group A and three courses from Group B.

## BS with a Major in Geography

The following four-year plan is one example of a variety of ways in which you can complete your chosen degree in four years, and will serve as guide for you to design your pathway to degree completion. Variations will depend on whether you need to take prerequisites or have college credit from exams or dual enrollment.
The College of Arts and Sciences expects you to have completed the State recommended high school program and be ready to enroll for Language 2040 or a mathematics course above college algebra. If you are not prepared for this level, the necessary prerequisites will either replace electives or increase the hours required for the degree.

## FRESHMAN YEAR <br> FALL

HOURS
ENGL 1310, College Writing I, or ENGL 1313, Computer Assisted College Writing I*

## GEOG 1170, Culture, Environment

 and Society, or GEOG 1200, World Regional Geography (GEOG 1200 recommended)PSCI 1040, American Government* 3
MATH (above College Algebra, except 1350)** 3
Understanding the Human Community ${ }^{*} \quad \underline{3}$
Total
SPRING
HOURS
ENGL 1320, College Writing II, or ENGL 1323, Computer Assisted College Writing II ${ }^{*}$
GEOG 1710, Earth Science, or GEOL 1610, Introductory Physical Geology (may be used to satisfy a portion of the Natural Sciences requirement) ${ }^{* *} 3$
PSCI 1050, American Government*
Understanding the Human Community*
Visual and Performing Arts*
Total
SOPHOMORE YEAR
FALL HOURS
HIST 2610, United States History to $1865^{*} 3$
BS Geography Course Group I, II, or III 3-4
Elective
3
Humanities*
Physical Science ${ }^{* *}$
Total
15-16
SPRING
HOURS
HIST 2620, United States History Since 1865* 3
BS Geography Course Group I, II, or III 3-4
Geography Group A or B (advanced)
Elective 3
Laboratory Science ${ }^{* *} \underline{3}$
Total
15-16

## JUNIOR YEAR

FALL
HOURS
GEOG 3190, Quantitative Methods in Geography

3
BS Geography Course Group I, II, or III 3
Geography Group A (advanced) 3
Elective 3
Elective $\underline{3}$
Total 15

SPRING
HOURS
BS Geography Course Group I, II, or III 3
Geography Group A (advanced) 3
Geography Group B (advanced) 3
Elective
Social and Behavioral Sciences*
(GEOG 1170, Culture, Environment and Society, recommended)
Total
SENIOR YEAR
FALL
HOURS
Geography Group B (advanced)
Geography Techniques (advanced)
Geography Techniques (advanced)
Elective (advanced)
Elective
Total
SPRING
GEOG 4800, Applied Geography
Geography Techniques (advanced)
Elective (advanced)
Elective (advanced)
Elective (advanced)
Total
3
3
3
3
$\underline{3}$
15
HOURS
3
3
3
3
$\underline{3}$
15
*See the University Core Curriculum section of this catalog for approved list of course options.
** See Arts and Sciences degree requirements section of this catalog for approved list of course options.
Actual degree audits may vary depending on availability of courses in a given semester.
Some courses may require prerequisites not listed. Students may wish to use opportunities for electives to complete a minor of their choice.

## Minor in Archaeology

A minor in archaeology requires 19 hours, including ANTH 1010, ARCH 2500 and 2800; and a total of 9 hours selected from ARCH 3650, 4620 (multiple sections for separate credit) and ARCH 4810.

## Minor in Geography

Students planning to minor in geography should consult the geography undergraduate advisor.

A minor requires 19 hours, and usually includes GEOG 1170 or 1200, 1710, and 12 advanced hours.

## Minor in Geology

A minor in geology requires 19-20 hours in geology and earth science, including GEOL 1610, 3000, 3020 and 4650, and two additional courses from GEOG 4350, GEOG 4750, GEOL 4630, 4710 and GEOL 4850. Geography majors may minor in geology, but none of the courses taken to satisfy the minor can also be applied to the major.

## Certificate in Economic Geography (18 hours)

The geography and economics departments offer an 18 -hour interdisciplinary certificate in analysis of geographic data.

The full description of this certificate is published in the Department of Economics section of this catalog.

## Certificate in Geographic Information Systems (15 hours)

The geography department offers a departmental certificate in geographic information systems (GIS). Fifteen hours of course work are required, including three core courses and two electives. Core courses include GEOG 4500, 4520 and 4550 . Elective courses include GEOG $4050,4060,4120,4170,4220$, $4400,4410,4560,4900,4920$; BCIS 3610 ; or other approved courses.

## Graduate Degrees

Students interested in advanced course work and research in water resources management, land use planning, urban environments or geographic information systems should consider the Master of Science with a major in Applied Geography and the graduate programs in environmental science. Faculty from the Department of Geography, in cooperation with the Department of Biological Sciences and the Institute of Applied Sciences, contribute to coordinating the environmental science degrees.

The Department of Geography, in conjunction with the departments of public administration and economics, offers studies in urban and regional planning within the Master of Public Administration degree program. Undergraduates who anticipate entering this program should take a minimum of 12 hours in public administration.

Students interested in archaeology should consider the MS with a major in applied geography or interdisciplinary studies. Faculty from the departments of geography and biological sciences and
from the Center for Environmental Archaeology coordinate these degrees, which emphasize geoarchaeology, zooarchaeology and interdisciplinary techniques including GIS, remote sensing and quantitative/spatial analysis.

## Courses of Instruction

All Courses of Instruction are located in one section at the back of this catalog.

## Course and Subject Guide

The "Course and Subject Guide," found in the Courses of Instruction section of this book, serves as a table of contents and provides quick access to subject areas and prefixes.

## Department of History

Main Departmental Office
Wooten Hall, Room 225
P.O. Box 310650

Denton, TX 76203-0650
940-565-2288
Fax: 940-369-8838
Web site: www.hist.unt.edu
Richard McCaslin, Chair

## Faculty

Professors Campbell, Golden, Hurley, Kamman, Lowe, Marcello, McCaslin, Mierzejewski, Paz, Smith, Wawro. Associate Professors Calderón, Chet, Eaton, Hilliard, Lewis, Morris, Seligmann, Stern, Tanner, Turner. Assistant Professors Fuhrmann, Hagler, Moye, Navarro, Pomerleau, Stockdale, Velikanova. Visiting Lecturers Hall, Johnson, Mitchener, Pollack.

## Introduction

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

