Geography, B.S. *major*
Giscience Emphasis

Required Credits: 49
Required GPA: 2.25

I REQUIRED CORE COURSES

Complete the following courses:

- BUAD 2231 Business Statistics I (3 credits)
  or PSY 3401 Basic Statistics for Research (4 credits)
  or STAT 2610 Applied Statistics (4 credits)
- ENGL 2150 Technical Writing (3 credits)
  or ENGL 3150 Writing In The Disciplines (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOG 3410 Geography of North America (3 credits)
  or GEOG 3800 Regional Geography (1-3 credits)
  or GEOG 3810 Geography of Europe (3 credits)
  or GEOG 3820 Geography of East, South, and Southeast Asia (3 credits)
  or GEOG 3840 Geography of Africa (3 credits)
  or GEOG 3850 Geography of the Middle East (3 credits)
  or GEOG 3860 Geography of Latin America and the Caribbean (3 credits)
  or GEOG 3870 Planning for Sustainable Cities (3 credits)
- GEOG 4265 Spatial Analysis (3 credits)

II GIScience EMPHASIS

REQUIRED EMPHASIS CORE

Complete the following courses:

- CS 1309 Problem Solving and Computation (3 credits)
- CS 2270 Introduction to Web Programming (3 credits)
- CS 2321 Computer Science I (4 credits)
- GEOG 2100 Introduction to Physical Geography (3 credits)
  or GEOG 2200 Introduction to Human Geography (3 credits)
- GEOG 3226 Cartography (3 credits)
- GEOG 3255 Introduction to Remote Sensing (3 credits)
- GEOG 4275 Advanced Geographic Information Systems (3 credits)
- GEOG 4970 Internship (3 credits)

Select 2 of the following courses:

- GEOG 2400 Introduction to Planning (3 credits)
- GEOG 3125 Weather and Climate (3 credits)
- GEOG 3400 Economic Geography (3 credits)
- GEOG 3560 Metropolitan Land Use Planning (3 credits)
- GEOG 3580 Regional Development Planning (3 credits)
- GEOG 3630 Conservation Biology (3 credits)
  or BIOL 3630 Conservation Biology (3 credits)
- GEOG 3870 Planning for Sustainable Cities (3 credits)
- GEOG 4130 Biogeography (3 credits)
- GEOG 4140 Landscape Ecology (3 credits)
- GEOG 4190 Qualitative Methods in Geographic Research (3 credits)
- BUAD 4385 Data Modeling and Visualization (3 credits)
- CS 2322 Computer Science II (4 credits)
- CS 3270 Advanced Web Programming (3 credits)
- CS 3507 Introduction to Databases (3 credits)
- ECON 2000 Principles of Microeconomics (3 credits)
- ECON 3040 Environmental Economics (3 credits)
  or ENVR 3040 Environmental Economics (3 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- GEOL 3120 Soils (4 credits)
  or BIOL 3120 Soils (4 credits)
- GEOL 4300 Global Environmental Change (3 credits)
- STAT 3610 Time Series Analysis (3 credits)
- TADT 1460 2D Graphics And Laser Etching (3 credits)

Program Learning Outcomes | Geography, B.S.

1. Geographic Understanding: Students will have an understanding of the nature of Geography as an academic discipline, including familiarity with its history and principal sub-fields, concepts are introduced in Geog 1400, and core courses.

2. Thematic Geographic Knowledge: Students will demonstrate understanding of Geography as a spatial science within its various sub-disciplines.

2.1. Competence in the Basic Concepts of Human Geography: Students will show proficiency in this area by meeting specific performance metrics in Geog 2200 and another upper division Human Geography Elective.

2.2. Competence in the Basic Concepts of Physical Geography: Students will show proficiency in this area by meeting performance metrics in Geog 2100 and another upper division Physical Geography Elective.

2.3. Competence in the Basic Concepts of Economic Geography: Students will show proficiency in this area by meeting performance metrics in Geog 2300.

2.4. Competence in the Basic Concepts of Planning: Students will show proficiency in this area by meeting performance metrics in Geog 2400 and another upper division Planning Courses.

3. Understanding the Basic Concepts of Geospatial Analysis: Students will show proficiency in this area by meeting performance metrics all classes requiring both quantitative and qualitative analysis.

3.1. Demonstrate confidence with GIS Software: Demonstrate a competency in selected geographic techniques and/or methods: Relevant Courses: Geog3231, Geog3232, Geog 4275.

3.2. Apply GIS skills in a related Geography Course: Demonstrate the ability to use and integrate GIS into research and project development non-GIS classes.

4. Basic Understanding of Regional Concepts: Students will appreciate how Geography's unique spatial perspective is essential for understanding historical, cultural, and demographic patterns in different world regions. Upper Division Regional courses, Geog3810, 3820, 3830, 3850.

5. Effective Communication: Students will display competency in written expression with respect to clarity, logical expression, and effective argument.

6. General Geographic Research Skills: Students will apply basic research skills, including the ability to {a} critically evaluate the research of others and {b} develop a coherent, thoughtful analysis of these findings. (Typically applies to shorter paper projects, not full term projects for the assessment criteria)

6.1. Competence in Geographic Research: Conceive, develop and produce a term project that involves a précis or abstract, an annotated bibliography and a review of academic literature presented in a coherent, well-developed articulate thesis or independent study project. (Assessments suited to full term projects).

7. Practical Experience - Internship: Students will acquire knowledge and skills sufficient to allow one to pursue advanced study in Geography or find employment in Geography-related fields, including but not limited to those involving urban and regional planning.