Geography, BS

A Bachelor of Science with a major in geography gives you the knowledge and skills to study and address environmental problems associated with 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 Liberal Arts and Social Sciences requirements (excluding foreign language).

Major requirements, 36 hours

A minimum grade of C is required in all courses counting toward the major.

Required courses:

- GEOG 2110 - Foundations of Geographic Research
- GEOG 2170 - Culture, Environment and Society
- GEOG 2180 - Geosystems, Environment and Society
- GEOG 4800 - Geography Capstone

Other courses in the major

Three courses from Earth Science; one course from Human Geography; two courses from Techniques; and two electives from any group.

GEOG 4900 and GEOG 4920 can be applied to any group.

Techniques

- GEOG 3500 - Introduction to Geographic Information Systems
- GEOG 4060 - Applied GIS: MapInfo Professional®
- GEOG 4680 - GIS Applications for Spatial Epidemiology and Disease Ecology
- GEOG 4170 - Field Methods and Mapping
- GEOG 4185 - Statistical Research Methods in Geography
- GEOG 4195 - Geospatial Data Analytics and Visualization
- GEOG 4400 - Introduction to Remote Sensing
- GEOG 4525 - Using LiDAR Data in GIS
Earth science

- GEOG 4240 - Meteorology
- GEOG 4250 - Climatology
- GEOG 4350 - Geomorphology
- GEOG 4710 - Ecosystems: Structure, Function and Services
- GEOG 4875 - Earth Science Topics
- GEOL 3000 - Geology of Texas
- GEOL 3010 - Environmental Geology
- GEOL 3020 - Historical Geology
- GEOL 3030 - Earthquakes and Volcanoes
- GEOL 4630 - Soils Geomorphology
- GEOL 4850 - Introduction to Groundwater Hydrology
- ARCH 4620 - Topics in Archaeology (can count as either Earth Science or Human Geography; may be repeated as topics vary)

Human geography

- GEOG 3010 - Economic Geography
- GEOG 3100 - United States and Canada: Economics, Cities and Sustainability
- GEOG 3200 - Sustainability
- GEOG 3600 - Political Geography
- GEOG 3750 - Geography of Contemporary Sub-Saharan Africa
- GEOG 3760 - Geography of China: Environment and Society
- GEOG 3770 - Latin America: Geography and Globalization
- GEOG 4030 - British Isles Field School (6 hours; counts as one course in Earth Science and one course in Human Geography)
- GEOG 4115 - Our Energy Futures
- GEOG 3120 - Medical Geography
- GEOG 4220 - Applied Retail Geography
- GEOG 4230 - Location Intelligence: Business GIS Concepts and Applications
- GEOG 4245 - Geography of International Development
- GEOG 4410 - Location-Allocation Modeling
- GEOG 4420 - Capitalism, Nature and Climate Change
- GEOG 4885 - Human Geography Topics
- ARCH 3650 - Origins of Civilization
• ARCH 4620 - Topics in Archaeology (can count as either Earth Science or Human Geography; may be repeated as topics vary)
• GEOG 4210 - Urban Geography

Other course requirements

Mathematics

• MATH 1680 - Elementary Probability and Statistics (or equivalent)

Sciences

• GEOG 1710 - Earth Science

And one additional science course:

• BIOL 1132 - Environmental Science
• BIOL 1710 - Biology for Science Majors I (or equivalent)
• BIOL 2140 - Principles of Ecology
• BIOL 2241 - Biology of Higher Plants
• BIOL 2251 - Biodiversity and Conservation of Animals
• CHEM 1360 - Context of Chemistry
• CHEM 1410 - General Chemistry for Science Majors (or equivalent)
• PHYS 1315 - Introduction to the World of Physics
• PHYS 1410 - General Physics I (or equivalent)

Minor

Optional.

Electives

Hours required for electives may vary based on course selection and the University Core Curriculum requirements. Electives may be required to satisfy the advanced hour requirement (42) and/or the minimum total hours required for the degree. For specific information see an academic advisor in the College of Liberal Arts and Social Sciences.