# Geography with a concentration in Earth Systems, BS

A Bachelor of Science with a major in Geography and a concentration in Earth Systems focuses on the Earth's natural systems and how they affect people and society. With this concentration, students will develop skills to study earth processes.

# Hours required and general/college requirements

A minimum of 120 semester hours, of which 42 must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the "<u>University Core Curriculum</u>" in the Academics section of this catalog and the <u>College of Liberal Arts and Social Sciences degree requirements</u> requirements (excluding foreign language).

## Major requirements, 36 hours

A minimum grade of C is required in all major courses to graduate with a major in this department.

## Required courses, 12 hours

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

## Earth systems concentration, 24 hours

## Earth science

Choose five courses, at least one in each area.

#### Geomorphology

- GEOG 4350 Geomorphology
- GEOL 3010 Environmental Geology
- GEOL 3020 Historical Geology
- GEOL 3030 Earthquakes and Volcanoes

#### Climatology

• GEOG 3800 - Weather and Climate

#### Hydrology

• GEOG 4750 - Surface Water Hydrology

• GEOL 4850 - Introduction to Groundwater Hydrology

#### **Biogeography**

- GEOG 3420 Applied Biogeography
- GEOG 4710 Ecosystems: Structure, Function and Services

## **Techniques**

Choose two courses.

- GEOG 3500 Introduction to Geographic Information Systems
- GEOG 4170 Field Methods and Mapping
- GEOG 4185 Statistical Research Methods in Geography
- GEOG 4525 Using LiDAR Data in GIS
- GEOG 4530 Digital Image Analysis
- GEOG 4550 Advanced Geographic Information Systems

## **Human geography**

Choose one course.

- GEOG 3100 United States and Canada: Economies, Cities and Sustainability
- GEOG 3200 Sustainability
- GEOG 3770 Latin America: Geography and Globalization
- GEOG 4115 Our Energy Futures
- GEOG 4420 Capitalism, Nature and Climate Change

# Other course requirements

#### **Mathematics**

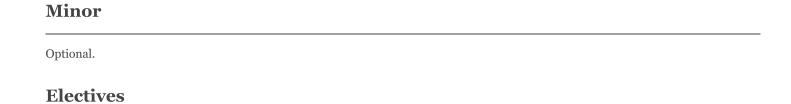
• MATH 1680 - Elementary Probability and Statistics (or equivalent)

## **Science**

• GEOG 1710 - Earth Science

## One additional science course

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



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.