



GEOLOGY

Academics

A major in geology encompasses a blend of the physical and biological sciences but adds a fourth dimension of geologic time. You will engage in a field- and laboratory-oriented program of study that exposes you to the full spectrum of geological experiences. Research projects will carry you around the world to remote localities in Antarctica, Australia, South America, Canada, Europe and all of the world's oceans.

Introductory courses are Dynamic Earth, focused on Earth's structure, composition, and the physical processes that shape the Earth; and Evolution of the Earth, which treats the evolution of Earth and life from their origins to the present. Beyond those, dig deep in upper-level courses that emphasize mineralogy, geochemistry, rock origins, Earth structure and geophysics. All of these courses prepare you for a six-week summer field course.

Opportunities

The employment outlook in geology is excellent, especially in petroleum geology and environmental geology. Several topical issues present challenges—and employment opportunities—for geologists, including decreasing energy, mineral and water resources; increasing concerns about protecting the environment; climate change and its effect on sea level, coastal erosion and flooding; and predicting and mitigating natural hazards such as earthquakes, tsunamis, volcanic eruptions and landslides. Here are examples of recent graduates' employment:

- Drafter / **BOOZ ALLEN HAMILTON**
- Geologist / **FULBRIGHT**
- Geologist / **MARATHON OIL COMPANY**
- Geotechnician / **WHITING PETROLEUM CORPORATION**
- Hydrogeologist / **UNITED STATES GEOLOGIC SURVEY**
- Mud-logger / **SELMAN AND ASSOCIATES**
- Quality Assurance Departures Specifications / **EPSILON SYSTEMS SOLUTIONS**
- Researcher / **UNIVERSITY OF NEBRASKA-LINCOLN**
- Well Site Geologist / **COLUMBINE LOGGING**

Experience

In the College of Arts and Sciences, we know experience is valuable and goes beyond the classroom. We strive to help you connect your academics with research, internships, education abroad, service learning and leadership experiences. Take advantage of opportunities in geology such as:

- Studying abroad in Ireland to learn about Economic and Exploration Geology
- Serving as the American Association of Petroleum Geologists (AAPG) president
- Interning with the United States Geological Survey
- Researching the paleokarst surfaces within the Persian Gulf
- Participating in field trips to locations such as the Black Hills or Park City, Utah
- Volunteering at Morrill Hall



GEOL—SAMPLE 4-YEAR PLAN (BS)*

ACE = Achievement-Centered Education CDR = College Distribution Requirements

FIRST SEMESTER

GEOL 101: Dynamic Earth (ACE 4)	4
MATH 106: Calculus I (ACE 3)	5
Written Texts / Research & Knowledge Skills (ACE 1)	3
CDR: Language	3
Total Hours	15

SECOND SEMESTER

GEOL 103: Evolution of the Earth (CDR)	4
MATH 107: Calculus II	4
CHEM 109A, 109L: General Chemistry I with Lab	4
CDR: Language	3
Total Hours	15

THIRD SEMESTER

GEOL 200: Mineralogy	2
PHYS 141: General Physics I	5
CDR: Written Communication	3
Humanities (ACE 5)	3
Elective / Minor / Secondary Major / Pre-Professional Course	1
Total Hours	14

FOURTH SEMESTER

GEOL 201: Igneous and Metamorphic Petrology	3
PHYS 142: General Physics II	5
Global Awareness & Human Diversity (ACE 9)	3
CDR: Human Diversity in U.S. Communities	3
Elective / Minor / Secondary Major / Pre-Professional Course	1
Total Hours	15

FIFTH SEMESTER

GEOL 300: Sedimentology and Stratigraphy	3
GEOL 400: Structural Geology (ACE 10)	3
Additional Science Course	4
Social Sciences (ACE 6)	3
Elective / Minor / Secondary Major / Pre-Professional Course	1
Total Hours	14

SIXTH SEMESTER

GEOL 301: Dispositional Environments	3
Geology 200-, 300- or 400-Level Course	3
Additional Science Course	3
CDR: Humanities	3
Ethics / Civics / Stewardship (ACE 8)	3
Total Hours	15

SUMMER SESSION

GEOL 460: Summer Field Course	6
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SEVENTH SEMESTER

Geology 200-, 300- or 400-Level Courses (2)	6
Communication Skills (ACE 2)	3
CDR: Social Science	3
Elective / Minor / Secondary Major / Pre-Professional Course	3
Total Hours	15

EIGHTH SEMESTER

Geology 410: Geochemistry	3
Geology 400-Level Course	3
Fine Arts (ACE 7)	3
Elective / Minor / Secondary Major / Pre-Professional Course	3
Total Hours	12

*DISCLAIMER: This document represents a sample 4-year plan for degree completion with a major of interest in the College of Arts and Sciences. Actual course selection and sequence may vary and should be discussed individually with an academic advisor at the college and department level.