



Geology - B.S.

College of Arts and Sciences

The geological sciences encompass a variety of types of studies of the Earth, including considerations of composition, structure, prehistoric life, internal and surficial processes, and geological history. These studies have applications in the discovery and use of mineral resources, fuels, and water; in protection of the environment; and in planning for natural limitations (earthquakes, landslides, resources, etc.) on societal development. Students undertake the study of geological sciences in the classroom, laboratory, and field.

Students in geological sciences earn the Bachelor of Science or Bachelor of Arts degree. The B.S. program is designed for students who plan a career as a professional geologist or who plan to attend graduate school. The B.A. program is designed for students planning a career in government policy relating to earth science and environmental issues, earth-science education, business (environmental consulting), environmental law, or environmental medicine.

123 hours (minimum)

Any student earning a Bachelor of Science (BS) degree must complete a minimum of 60 hours in natural, physical, mathematical, and computer science. A complete description of College requirements for a Bachelor of Science degree, including a specific listing of courses applicable to the 60-hour requirement, can be found on page 95 of the 2005-2006 UK Bulletin.

University Studies Program Requirements

- I. Math (completed by Premajor Requirement)
- II. Foreign Language (placement exam recommended) 0-8
- III. Inference-Logic (completed by Premajor Requirement)
- IV. Written Communication 0-4
- VI. Natural Sciences (completed by Premajor Requirement)
- VII. Social Sciences 6
- VIII. Humanities 6
- IX. Cross-Cultural (choose a 200+ Social Science course) 3
- X. Electives (choose 1 Humanities courses) 3

USP hours: 18-30

Graduation Writing Requirement

After attaining sophomore status, students must complete a Graduation Writing Requirement course. See "University Writing Requirement" on page 66 of the 2005-2006 UK Bulletin.

Graduation Writing Requirement Hours: 3

College Requirements

- I. Foreign Language (placement exam recommended) 0-8
- II. Disciplinary Requirements
 - a. Natural Science (completed by Major Requirements)
 - b. Social Science (completed by USP Cross-Cultural Requirement)
 - c. Humanities (completed by USP Elective Requirement)
- III. Laboratory or Field Work (completed by Premajor Requirement)
- IV. Electives 6

College Requirement hours: 6-14

Premajor Requirements

- MA 113 Calculus I 4
- MA 114 Calculus II 4
- *CHE 105 General College Chemistry I 3
- *CHE 107 General College Chemistry II 3
- CHE 115 General Chemistry Laboratory 3
- GLY 220 Principles of Physical Geology
 - or
 - GLY 223 Introduction to Geology in the Rocky Mountains 4-6
- GLY 230 Fundamentals of Geology I 3
- GLY 235 Fundamentals of Geology II 3
- GLY 295 Geoscience Orientation 1

Premajor hours: 28-30

Major Requirements

Major Core Requirements

- GLY 323 Field Work in Regional Geology 6
- GLY 360 Mineralogy 4
- GLY 420G Structural Geology 4
- GLY 450G Sedimentary Geology 4
- GLY 461 Igneous and Metamorphic Petrology 4
- GLY 490 Earth Dynamics 3

Major Core hours: 25

Other Course Work Required for the Major

From the Major Department:

Elective I 6
Choose 6 hours of GLY courses at the 400+ level, not to include GLY 495 or 496

Elective II 6
Choose 6 additional hours of 300+ GLY or related courses

From the Physics Department

- PHY 211/213 General Physics or
- PHY 231/232/241/242 General University Physics 10

NOTE: Fourteen hours at the 200 level or higher must be completed outside Geology. Partial fulfillment of this requirement can be completed by the PHY Sequence, the USP Cross-Cultural, and GLY Elective II Requirements 0-4

Other Major hours: 22

Total Minimum Hours Required for Degree 123

*Course used towards completion of a USP Requirement.