The earth and environmental sciences encompass a variety of types of studies of our planet, including considerations of composition, structure, prehistoric life, internal and surficial processes, and 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 the impact of natural hazards (earthquakes, landslides, etc.) on societal development. Students undertake the study of earth and environmental sciences in the classroom, laboratory, and field.

Students in earth and environmental sciences earn the Bachelor of Science or Bachelor of Arts degree with a major in Geology. 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.

120 hours (minimum)

Any student earning a Bachelor of Arts (BA) degree must complete a minimum of 39 hours at the 300+ level. These hours are generally completed by the major requirements. However, keep this hour requirement in mind as you choose your course work for the requirements in the major. A complete description of College requirements for a Bachelor of Arts degree can be found on pages 101-103 of the 2007-2008 UK Bulletin.

University Studies Program Requirements

I. Math (completed by Premajor Requirement)
II. Foreign Language (placement exam recommended) .......... 0-8
III. English (completed by Premajor Requirement)
IV. Written Communication .............................................. 0-4
V. Oral Communication ................................................... 0-3
VI. Natural Sciences (completed by Premajor Requirement)
VII. Social Sciences .......................................................... 0-6
VIII. Humanities ............................................................... 0-6
IX. Cross-Cultural (with your advisor choose a 300+ level GEO course) ............................................. 0-3
X. Electives (choose two Humanities courses) ............... 0-6

USP hours: ........................................................................ 24-36

Graduation Writing Requirement

After attaining sophomore status, students must complete a Graduation Writing Requirement course. See “University Writing Requirement” on page 72 of the 2007-2008 UK Bulletin.

Graduation Writing Requirement Hours: .......................... 0-3

College Requirements

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

College Requirement hours: .............................................. 6-14

Pre-major Requirements

*CHE 105 General College Chemistry I (CHE 105) .................. 3
GLY 220 Principles of Physical Geology (GLY 220) or
GLY 223 Introduction to Geology in the Rocky Mountains .... 4-6
GLY 295 Geoscience Orientation ........................................ 1

*MA 123 Elementary Calculus and its Applications (MA 123 or MT 170) or
MA 113 Calculus I (MA 113 or MT 175) .................. 3-4

PHY 151 Introduction to Physics (PHY 151) or
PHY 211 General Physics (PHY 211) or
PHY 231/241 General University Physics/Lab (PHY 231/241) .... 3-5

Premajor hours: ................................................................ 14-19

Major Requirements

Major Core Requirements

GLY 230 Fundamentals of Geology I .......................... 3
GLY 235 Fundamentals of Geology II .......................... 3
GLY 380 Mineralogy ...................................................... 4
GLY 420G Structural Geology .............................. 4
GLY 450G Sedimentary Geology ................................... 4
GLY 461 Igneous and Metamorphic Petrology ............. 4

Major Core hours: .......................................................... 22

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

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 ................................................................... 8-10

Other Major hours: ...................................................... 20-22

Total Minimum Hours Required for Degree .................... 120

*Course used towards completion of a USP Requirement.