



## GEO 2500

**Division:** Natural Science and Mathematics

**Department:** Geology

**Course:** GEO 2500

**Title:** Geology Field Studies

**Catalog Description:**

This class is the study of specific areas in the field. The students will also be introduced to some of the basic skills required of a field geologist. The course will consist of a few short meetings and a three or four day field trip. This class is designed for majors and others interested. The field trip is required. This class may be repeated up to four times.

**General Education Requirements:** N/A

**Semesters Offered:** Fall, Spring

**Credit/Time Requirement:** Credit: 1; Lecture: 0; Lab: 0

**Clock/Hour Requirements:** 0

**Offered for Non-Credit:** No

**Prerequisites:** GEO 1010 or 1110 or permission of instructor

**Justification:**

This course designed for geology majors and others interested in learning to apply the principles of geology in the field. Because Snow College only offers first year geology courses, it allows majors to continue to learn concepts and skills that will be important to them as geology majors. This class transfers to other colleges in Utah and fulfills part of the geology requirements for graduation.

**Student Learning Outcomes:**

Outcomes will vary with semester, but generally upon successful completion of this course, a student will be able to:

- identify rocks, fossils and structures in the field
- describe the geology and geologic history of the area studied
- explain the geologic processes at work in the area and the landforms they have created
- demonstrate the ability to use some common field techniques
- demonstrate accepted methods for keeping accurate field notes and/or write a paper summarizing the geology of the area

**Content:**

Content will vary depending on semester and students. The instructor will vary field trips and evaluation to help students learn a variety of geology and geologic techniques.

- Field trips include
- geology of Yellowstone and Teton National Park
- geology of Western Utah

- mining geology of Utah
- geology of the San Rafael Swell
- geology of the Grand Canyon
- geology of Zion National Park and surrounding area
- geology of Death Valley
- paleontology of Kaiparowits National Monument
- geology of Snow Canyon.

However, in general, in each class the following topics will be tailored to the area of study:

- identifying the rock units of the field area in the field and interpreting their geologic history
- identifying any fossils encountered in the field area and using these to interpret the geologic history of the area
- understanding the age of different rock units in the field area
- interpreting the landforms in each area both tectonic and erosional causes
- identifying any geologic structures present in an area
- understanding any other geologic phenomena in the field area including modern erosional processes and geologic hazards
- understanding the geologic history of each area
- drawing stratigraphic and or structural cross sections selected geological areas
- measuring strike and dip
- finding location on a map using a variety of methods.

### **General Education Outcomes:**

7) Apply scientific reasoning to a variety of contexts.

Students are asked to apply their knowledge of geology to interpreting and understanding a real geological situation. Feedback will be given in the field as students attempt to interpret what they see and on field notes/reports and quizzes

### **Key Performance Indicators:**

- attendance and participation in the field: 30%
- field notes/report: 70%

### **Representative Text and/or Supplies:**

- Reading may or may not be required for this class and will vary with field area.

**Optimum Class Size:** 12

**Maximum Class Size:** 12

**Signatures:**

I hereby submit this course syllabus:

---

Renee Faatz, , Associate Professor

I hereby find this course consistent with the goals and resources of the Geology Department:

---

Renee Faatz, , Associate Professor, Chair

I hereby find this course consistent with the goals and resources of the Natural Science and Mathematics Division:

---

Dan Black, EdD, Associate Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

---

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

---

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)