

GEOLOGY

GEO-1

Physical Geology (C-ID:GEOL 100)

3.00 units
UC, CSU

Prerequisite: None.

Description: Examines the composition and structure of the earth, and the processes that shape its surface such as earthquakes, volcanoes, running water, glaciers, and plate tectonics. Also examines some of the social consequences of geologic processes, and addresses the study of the geology of other planetary bodies. Has an optional laboratory course (Geology 1L) and optional field courses (Geology 30 and Geology 31). 54 hours lecture. (Letter grade only)

GEO-1B

Historical Geology (C-ID:GEOL 111)

4.00 units
UC, CSU

Prerequisite: None

Advisory: GEO-1 and MAT-35 and ENG-1A.

Description: Examines the geologic history of the earth and the fossil record, emphasizing principles and methods of interpretation. Special topics discussed are: continental drift, the San Andreas Fault, evolution, extinction, and mountain building. Laboratory includes study of fossils, geologic maps, and methods of interpreting ancient environments. Field trips to local areas of geologic interest may be required. 54 hours lecture and 54 hours laboratory. (Letter grade only)

GEO-1L

Physical Geology Laboratory (C-ID:GEOL 100L)

1.00 unit
UC, CSU

Prerequisite: None.

Corequisite: GEO-1.

Description: This is a laboratory course designed to acquaint students with the concepts presented in Physical Geology (GEO-1). Topics studied include, but are not limited to, topographic and geologic map reading, earthquake analysis, physical properties and identification of rocks and minerals, and the study of plate tectonics. 54 hours laboratory. (Letter grade only)

GEO-2

Geology of National Parks and Monuments

3.00 units
CSU

Prerequisite: None.

Description: A survey of the principles of physical and historical geology as interpreted through the study of several of the National Parks and Monuments. Emphasis on understanding the geologic processes which have shaped the present landscape, with considerable use made of rock and fossil specimens, videos, pictures and maps. 54 hours lecture. (Letter grade only)

GEO-3

Geology of California (C-ID:GEOL 200)

3.00 units
UC, CSU

Prerequisite: None.

Description: A study of California's geological history, including the examination of the varying geological provinces and environments which exist throughout the state. Topics include: examining present and ancient geological environments; examining major structural elements (faults) within the state; the study of the geology and the history of California's geologic resources; the study of geologic hazards; and the relationship of California geology to global tectonics. 54 hours lecture. (Optional field trips in GEO-30A, 30B or 31 will accompany this course.) (Letter grade only)

GEO-4

Earth Science for Educators

4.00 units
UC, CSU

Prerequisite: None.

Description: The study of the forces and processes that have created and shaped the solar system, the Earth, its atmosphere and oceans. This lecture and lab combination course is oriented towards students seeking to become earth science teachers in a K-12 setting. This course is not the equivalent of Geology 1, Physical Geology, and does not fulfill any requirements for the ADT in geology, or transfer for a bachelors in geology or earth science. 54 hours lecture and 54 hours laboratory. (Letter grade only)

GEO-5**Natural Hazards and Disasters****3.00 units**

UC, CSU

*Prerequisite: None.**Advisory: MAT-35 and ENG-1A.*

Description: Focus on natural hazards and disasters that includes such phenomena as earthquakes, volcanic eruptions, tsunamis, hurricanes, tornadoes, landslides, meteor impacts, sea level rise, mass extinctions, flooding, and climate change. Topics also include preparation, monitoring, response and mitigation. (Letter grade only)

GEO-30A**Geologic Field Studies of Southern California****1.00 unit**

UC, CSU

*Prerequisite: None.**Advisory: GEO-1 and GEO-1B and GEO-2 and GEO-3.*

Description: An extensive field course experience with trips to regional points of geologic interest. This class includes a series of three to four field excursions, often found in rugged or remote locations, and requires students to camp outdoors in primitive campgrounds. These sites include, but are not limited to, the Landers seismic zone to view ground ruptures associated with the 1992 Landers earthquake, the Blawkhawk Landslide, the San Andreas fault zone, Salton Sea geothermal field, Amboy crater, California's coastline, the San Bernardino Mountains, Rainbow Basin, Calico Mountains, Portuguese Bend Landslide, Red Rock Canyon State Park, Pisgah Crater, San Diego mining district and others. This course is designed to supplement other courses in geology and to increase the interest and understanding of those enrolled in these courses. Class meets during the first week of the semester. Total of 54 hours laboratory. (TBA option) (Letter grade only)

GEO-30B**Geologic Field Studies of Southern California****1.00 unit**

UC, CSU

*Prerequisite: None.**Advisory: GEO-1 and GEO-1B and GEO-2 and GEO-3*

Description: An extensive field course with trips to regional points of geologic interest. This class includes two weekend field excursions, to sites of geologic interest, often found in rugged or remote locations, and requires students to camp outdoors in primitive campgrounds. These sites include, but are not limited to, the Eastern Mojave Desert National Preserve, Red Rock Canyon State Park, Salton Trough, Anza-Borrego Desert State Park, and Rainbow Basin. This course is designed to supplement other courses in geology and to increase the interest and understanding of those enrolled in these courses. The first class meeting is during the first week of the semester. 54 hours laboratory. (TBA option) (Letter grade only)

GEO-31**Regional Field Studies in Geology****1.00 unit**

UC, CSU

*Prerequisite: None.**Advisory: GEO-1 and GEO-1B and GEO-2 and GEO-3*

Description: An extensive field course experience with trips to regional points of geologic interest. This class can be taught as a series of field excursions or as one, week-long geology trip to a site of interest, often found in rugged or remote locations, and requires students to camp outdoors in primitive campgrounds. Sites include, but are not limited to, Yosemite, Grand Canyon, Death Valley, Owens Valley, the Mother Lode country, Mount Lassen, San Luis Obispo, Carlsbad Caverns and Baja California. Designed to supplement other courses in geology and to increase the interest and understanding of those enrolled in these courses. 54 hours laboratory. (TBA option) (Letter grade only)

GEO-32**Regional Field Studies in Geology****2.00 units**

UC, CSU

*Prerequisite: None.**Advisory: GEO-1 and GEO-1B and GEO-2 and GEO-3.*

Description: An extensive field course experience with trips to regional points of geologic interest. This class encompasses a two-week field excursions, often found in rugged or remote locations, and requires students to camp outdoors in primitive campgrounds. Sites include, but are not limited to Hawaii, Mount St. Helens, Crater Lake, Rocky Mountains, Sierra Madre, Appalachians, British Columbia, Newfoundland, Nova Scotia and Alaska. Designed to increase student understanding and interest in the geologic sites visited. This course is also designed to supplement other courses in geology and to increase the interest and understanding of those enrolled in these courses. 108 hours during summer session or winter intersession. (TBA option) (Letter grade only)