

GEOL - GEOLOGY

GEOL 100 - Earthquakes, Volcanoes and Natural Disasters Units: 3

This course will emphasize the geology of earth's natural hazards including earthquakes, volcanoes, tsunamis, landslides, global warming and ozone depletion. Students will learn how geologic processes can directly affect people, property and human made structures. Procedures to mitigate such hazards will be explored. In addition to earth's natural hazards, some other important concepts to be addressed include population growth pressures on natural resources, uniformitarianism and geology as a foundation to understanding our environment. Course entails three hours of lecture per week and four 3-5 hour mandatory laboratory exercises per semester.

Term Offered: Spring and Fall

GEOL 101 - Geology: Exploring Planet Earth Units: 4

A lecture- and laboratory-based course covering fundamental geologic concepts of plate tectonics, formation of rocks and minerals, earth forces that cause earthquakes and volcanoes, and the significance of geologic time in effecting changes in the distribution of continents and oceans. The laboratory experience reinforces and applies concepts discussed during lecture, including effective use of topographic and geologic maps, identification of common rocks and minerals, and three-dimensional interpretation of rock structures, such as folds and faults. The course consists of three hours lecture, three hours lab per week, and one full-day mandatory field activity.

Term Offered: Spring and Fall

GEOL 102 - Earth and Life Through Time Units: 4

A lecture- and laboratory-based course examining the history of the Earth system, including major events in plate tectonics, changes in the climate, and the evolution of the biosphere. Emphasis is placed using the tools of stratigraphy, geologic dating, and paleontology to interpret the physical and paleobiologic history of the Earth. The course consists of 3 hours of lecture and 3 hours of lab per week. A full-day field study is required.

Term Offered: Fall

GEOL 198 - Selected Topics in Geology Units: 0.5-6

Various short courses and experimental classes covering a variety of specific areas in the geological sciences. The course will be a variable of one-half to six credits depending on the course content and number of hours required. The course may be repeated for up to six credits.

Term Offered: AS NEEDED

GEOL 260 - Introduction to Field Methods Units: 2

This course is a hands-on introduction to basic geologic map interpretation and field methods for geologic mapping. Students will learn how to interpret geologic features from aerial photos, measure strikes and dips of geologic structures and rock units, determine thickness of stratigraphic units, identify and map the distribution of different rock types and geologic structures, interpret geologic histories and potential hazards of different areas, and chronicle their findings in concise, well-written geologic reports.

Enrollment Requirements: Prerequisite: GEOL 101 or instructor approval.

Term Offered: All Semesters