

# GEOL - GEOLOGY

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

Explores the dynamic processes of planet Earth through the study of natural hazards: volcanoes, earthquakes, tsunamis, extreme weather, wildfires, floods, mass movement, coastal hazards, climate change, bolide impact, and mass extinctions. Emphasis is placed on the effects natural hazards have on humanity, mitigation strategies, and risks they pose to our community. 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 identify and map the distribution of different rock types and geologic structures, measure orientations of geologic structures and rock units, perform basic stratigraphic analysis, interpret geologic histories of a field area, and effectively communicate their findings. The course culminates in a weekend-long field trip.

*Enrollment Requirements: Prerequisite: GEOL 101, or GEOL 102, or instructor approval.*

*Term Offered: SPR EVEN*