

GEOLOGY (GEOL)

GEOL 001 Physical Geology

4unit(s)

Hours: 3 Lecture/Discussion Hours:
3 Lab

An introductory exploration of the structure, composition and dynamic processes that comprise the Earth system, with emphasis on plate tectonics and its consequences and the external processes that sculpt Earth's surface. Laboratory exercises include the identification of mineral and rock specimens and the examination of topographic and geologic maps. (C-ID GEOL101)

GEOL 005 Earth History

4unit(s)

Hours: 3 Lecture/Discussion Hours:
3 Lab

This course examines the geologic evidence for the major events in Earth's history, including: the formation of the crust, atmosphere, and oceans; the tectonic history of the continents; and mass extinctions and the record of life on Earth. Course topics are reinforced by the analysis of rock specimens, fossils, and geologic maps during laboratory sessions. (C-ID GEOL111)

GEOL 012 Environmental Geology

3unit(s)

Hours: 3 Lecture/Discussion

Geologic hazards, natural resources, and pollution constitute the core themes of this study of man's interactions with earth systems. The consequences of human modification of natural systems and the geological underpinnings of modern society are emphasized. Topics include flooding, earthquakes, volcanic eruptions, plate tectonics, energy resources, water resources, mineral resources, climate change, the greenhouse effect, waste disposal, water pollution, and the carbon, nitrogen, and water cycles. Scientific and sociopolitical approaches to environmental issues are explored. (C-ID GEOL 130)

GEOL 151 Geology of the Mojave Desert

1unit(s)

Hours: 1 Lecture/Discussion Hours:
0.5 Lab

This field trip course introduces the geology and natural resources of the Mojave Desert. Major themes include tectonics and structure, mineral resources and mining, and energy resources. Some geologic features will be discussed en route, while extended stops, that include some hiking, allow closer examination of phenomena such as faults, volcanoes, mines, and solar power plants.

GEOL 152 Geology of the Central Coast

1unit(s)

Hours: 1 Lecture/Discussion Hours:
0.5 Lab

This field trip course introduces the geology of the Central Coast. Major themes include tectonics, geologic hazards, energy and water resources, pollution, and coastline and surficial processes. Some features will be discussed en route. Extended stops that include some hiking allow closer examination of phenomena (e.g., the San Andreas Fault and Morro Rock).

GEOL 153 Granite, Glaciers, and Gold

1unit(s)

Hours: 1 Lecture/Discussion Hours:
0.5 Lab

This field trip course explores the geology of the central Sierra Nevada. Primary topics include: the formation and evolution of Yosemite Valley, the Mother Lode gold deposits, and the central Sierra foothills (the Western Metamorphic Belt).

GEOL 154 Volcanoes of Northern California

2unit(s)

Hours: 1.5 Lecture/Discussion Hours:
1.5 Lab

This extended field trip explores northern California's sleeping volcanoes: Mt Shasta, Medicine Lake Volcano and Mt Lassen. Volcanic features, landforms, processes, and hazards constitute the major themes of this class.