

GEOLOGY (GEOL)

GEOL 1 Physical Geology

4 Units (Degree Applicable, CSU, UC)

Lecture: 54 Lab: 54

Prerequisite: Eligibility for MATH 51

Minerals, rocks, earthquakes, volcanoes, and landscapes are presented within a framework of plate tectonics operating in concert with atmospheric and oceanic processes. A required course for students entering geoscience majors. May be taken by non-majors as a transferable physical science plus lab. Required field trips may involve overnight camping.

Course Schedule

GEOL 2 Historical Geology

4 Units (Degree Applicable, CSU, UC)

Lecture: 54 Lab: 54

Prerequisite: GEOL 1 or GEOL 8L

An Earth systems approach applied to tracing the tectonic, biologic, and climatic development of Earth, with focus on North America, through geologic time. Study of Earth history using geologic maps, cross-sections, minerals, rocks, and fossils and integrating basic geological field methods. Required field trips may involve overnight camping.

Course Schedule

GEOL 7 Geology of California

3 Units (Degree Applicable, CSU, UC)

Lecture: 54

Natural provinces of California, namely their mineral, rock, and petroleum resources, volcanoes and earthquakes, landscapes, and geologic history as influenced by plate tectonic and surface processes. Field trips are required and may involve overnight camping.

Course Schedule

GEOL 8 Earth Science

3 Units (Degree Applicable, CSU, UC)

Lecture: 54

Fundamentals of geology, oceanography, meteorology, and astronomy. Field trips are required. Take with GEOL 8L for lecture/lab credit.

Course Schedule

GEOL 8H Earth Science - Honors

3 Units (Degree Applicable, CSU, UC)

Lecture: 54

Prerequisite: Acceptance into the Honors Program

An honors course designed to provide an enriched experience. Fundamentals of geology, oceanography, meteorology, and astronomy. Field trips are required. Students may not receive credit for both GEOL 8 and GEOL 8H.

Course Schedule

GEOL 8L Earth Science Laboratory

1 Unit (Degree Applicable, CSU, UC)

Lab: 54

Corequisite: GEOL 8 or GEOL 8H (May have been taken previously)

Laboratory applications and problem-solving in geology, oceanography, meteorology, and astronomy. Recommended for students needing a lab to transfer to a 4-year college or university.

Course Schedule

GEOL 9 Environmental Geology

3 Units (Degree Applicable, CSU, UC)

Lecture: 54

Advisory: ENGL 1A and (GEOL 1 or GEOL 8)

Human interactions with the geological environment. Relevant aspects of the geological environment and the problems currently caused by humans as they use the earth and its resources. Geologic hazards, including earthquakes, volcanoes, landslides, floods, and subsidence. Emphasis on geological viewpoints concerning waste disposal, pollution, geothermal energy, fossil fuels, and mining. Geologic practices related to sound land management, conservation of resources, and protection of the environment. Field trips required.

Course Schedule

GEOL 9L Environmental Geology Laboratory

1 Unit (Degree Applicable, CSU)

Lab: 54

Corequisite: GEOL 9 (May have been taken previously)

Common laboratory practices and exercises in environmental geology. Laboratory exercises include analyzing topographic and geological maps and aerial and satellite imagery. Also included are identifying common mineral and rock samples, water and soil analysis, and integrating data from lab activities in problem solving exercises. Field trip required.

Course Schedule

GEOL 10 Natural Disasters

3 Units (Degree Applicable, CSU, UC)

Lecture: 54

Surveys the hazards faced by humans from the natural environment. Analyzes a variety of hazards from a geological perspective. Studies the impact humans have on influencing or exacerbating natural disasters. Includes the role of government in responding to natural disasters. Field trips required.

Course Schedule

GEOL 24 Geologic Field Studies: Central California

4 Units (Degree Applicable, CSU)

(May be taken for option of letter grade or Pass/No Pass)

Lecture: 54 Lab: 54

Field studies of selected Central California geological provinces and surrounding areas. Overnight field trips with substantial hiking required.

Course Schedule

GEOL 25 Geologic Field Studies: Southern California

4 Units (Degree Applicable, CSU)

Lecture: 54 Lab: 54

Field studies of selected Southern California geological provinces and surrounding areas. Overnight field trips required. Trips require significant hiking.

Course Schedule

GEOL 29 Special Topics in Field Geology

3 Units (Degree Applicable, CSU)

Lecture: 18 Lab: 108

Advisory: GEOL 1 or GEOL 8

Field studies of designated geologic provinces and regions. Emphasis on rock identification and interpretation of geologic histories of field areas. Extended overnight field trips, camping, and strenuous hiking required.

Course Schedule

GEOL 30 Global Climate Change

3 Units (Degree Applicable, CSU)

Lecture: 54

History of Earth's changing climate through geologic time and the application of the scientific method to the global climate change debate. Topics include the feedback systems that regulate the climate over long and short-term time scales, the interrelationships among short and long-term carbon cycling, plate tectonics, ocean and atmosphere circulation, the influence and origin of greenhouse gases and the major reservoirs of the exchangeable carbon on Earth. Required field trips may involve overnight camping.

Course Schedule

GEOL 99 Special Projects in Geology

2 Units (Degree Applicable, CSU)

(May be taken for option of letter grade or Pass/No Pass)

Lab: 108

In order to offer students recognition for their academic interests and abilities and the opportunity to explore their disciplines in greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Field trips may be required.

Course Schedule