

GEOLOGY

Division: Science/Engineering/Mathematics

Division Dean

Patricia Menchaca

Faculty

Victoria Castle
Kirk Domke

Counselor

Ernesto Heredia

Geology Transfer Programs

Students should consult a counselor or www.assist.org (<http://www.assist.org>) for lower division major requirements for most California public universities. (See the Standard Definitions section of the catalog for a description of ASSIST.) Students transferring to an independent college/university should consult the catalog of the individual school and a counselor for lower division major requirements.

- Environmental Science Associate in Science Degree for Transfer (AS-T) (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/geology/environmental-science-associate-in-science-degree-for-transfer/>)
- Geology Associate in Science Degree for Transfer (AS-T) (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/geology/associate-science-geology-transfer-degree-as-t/>)

GEOL 100 C Physical Geology 3 Units

Term hours: 54 lecture. This introductory course is a survey of the composition, structure, processes and forces that operate underneath and upon Earth's surface. Topics include plate tectonics, rocks/minerals, earthquakes, volcanoes, landslides, resources, and environmental concerns. Cost of field trip not to exceed \$25. Duplicate credit not granted for GEOL 100HC. (CSU/UC, AA GE, CSU GE, IGETC, C-ID: GEOL 100)

GEOL 100HC Honors Physical Geology 3 Units

Term hours: 54 lecture. This course is an enhanced introduction to the concepts and theories of geology. It includes a survey of the composition, structure, processes and forces that operate underneath and upon Earth's surface. Topics include plate tectonics, rocks/minerals, earthquakes, volcanoes, landslides, resources, and environmental concerns. Field trips may be required not to exceed \$25. Duplicate credit not granted for GEOL 100. (UC/CSU, AA GE, IGETC/C-ID: GEOL 100)

GEOL 101 C Physical Geology Laboratory 1 Unit

Prerequisite(s): Completion of, or concurrent enrollment in, GEOL 100 C with a grade of C or better.

Term hours: 54 laboratory. This course includes the identification of minerals and rocks; understanding of topographic maps, aerial photographs and other imagery from remote sensing; interpretation of rocks, structures, and geologic processes as revealed on maps, air photos, and satellite imagery and their relationship to plate tectonics. (UC/CSU, AA GE, CSU GE, IGETC/C-ID: GEOL 100 L)

GEOL 103 C Historical Geology 4 Units

Term hours: 54 lecture and 54 laboratory. This course is an introduction to the scientific method of exploring Earth's history and the life it supports. Subjects include geologic dating, plate tectonics, stratigraphy, fossils, biological evolution and Earth's origin and processes. (UC/CSU, AA GE, CSU GE, IGETC, C-ID: GEOL 111)

GEOL 104 C Geology of National Parks 3 Units

Term hours: 54 lecture. This course studies the geology, development and structure of the U.S National Park and Monument system. Rocks and geological structures at selected parks will be studied as a means to understand the general geology of North America. Pass/No Pass or Letter Grade option. Field Trip may be required not to exceed \$25.00. (UC/CSU)

GEOL 105 C Earth Science for Teachers 4 Units

Term hours: 54 lecture and 54 laboratory. This class is designed for the prospective school teacher. This multidisciplinary course will explore the fields of geology, oceanography, meteorology, and astronomy. Topics include solar system, mineral/rock formation, star/galaxy, atmosphere, volcanoes, and earthquakes. (CSU, AA GE, CSU GE)

GEOL 115 C Physical Geology Field Lab 1 Unit

Prerequisite(s): Earth science class as approved by instructor.

Corequisite(s): GEOL 100 C or GEOL 100 HC.

Term hours: 54 laboratory. This course includes field and laboratory study of mineral, rock, and fossil identification; structural and geomorphic features; geologic history; and geologic hazards of selected regions in California, Arizona and Utah. Field trip fees range from \$25-155 depending on trip location. Pass/No Pass/Letter Grade Option. (UC Credit Limitation/CSU, AA GE, CSU GE, IGETC)

GEOL 120 C Geology of California 3 Units

Term hours: 54 lecture. This course is designed to acquaint the student with the physical and historical geology of the natural provinces of California. This includes mineral deposits, rock types, tectonic structures, fossils and surface features within each province. Natural hazards such as earthquakes, volcanoes, and mass wasting within California will be explored. Field trip fees not to exceed \$40. Pass/No Pass/Letter Grade option. (CSU/UC, AA GE, CSU GE, IGETC, C-ID: GEOL 200)

GEOL 125 C Natural Disasters 3 Units

Term hours: 54 lecture. This course is an introduction to the science of natural disasters. Topics include earthquakes, volcanoes, landslides, hurricanes, tornadoes, floods, climate change and mass extinctions. Case studies, monitoring methods and disaster planning will be addressed. Pass/No Pass/Letter Grade Option. (UC/CSU, AA GE, CSU GE, IGETC)

GEOL 130 C Introduction to Oceanography 3 Units

Term hours: 54 lecture. This course is a survey of the composition and structure of the earth's ocean showing the interrelationship between atmosphere, hydrosphere, lithosphere, and biosphere. The effects of modern technology, ocean resources, and marine pollution will be explored. Field trips may be required with a fee not to exceed \$25. (UC/CSU, AA GE, CSU GE, IGETC)

GEOL 131 C Introduction to Oceanography Lab 1 Unit

Prerequisite(s): Completion of, or concurrent enrollment in, GEOL 130 C with a grade of C or better.

Term hours: 54 laboratory. This course includes the identification of earth materials; understanding of bathymetric charts; basic navigation; and methods of oceanographic research. Field trips may be required at no additional cost. (UC/CSU, AA GE, CSU GE, IGETC)

GEOL 190 C Environmental Geology

3 Units

Term hours: 54 lecture. This course is designed for the non-science major and will focus on the interaction between humans and the geologic processes that shape Earth's environment, with special emphasis on hazardous earth processes, Earth resources, and the health of our environment. Natural hazards such as earthquakes, volcanoes, landslides and floods will be examined. The course will focus on ways in which solid earth, hydrospheric and atmospheric processes generate the varieties of soil, water and mineral resources, and fossil fuel and alternative energy resources useful to Earth's growing human population. Pollution and waste disposal and climate change and effects will also be addressed. (The course is not open to students who have completed GEOL 100 C or GEOL 102 C.) (UC Credit Limitation/CSU, AA GE, CSU GE, IGETC)

GEOL 192 C Coastal Oceanography Field Studies

1 Unit

Term hours: 54 laboratory. This course involves investigation and field study of selected oceanographic processes of southern and central California and other areas. Study areas include coastal regions in the counties of San Diego, Orange, Los Angeles, Ventura, Santa Barbara and San Luis Obispo. Fees will be required. Pass/No Pass/Letter Grade option. (CSU)

GEOL 298 C Geology Seminar

0.5-4 Units

Prerequisite(s): May be required.

Corequisite(s): May be required.

Advisory: May be required.

Term Hours: 9-72 lecture and/or 27-216 laboratory depending on units attempted. This seminar course is designed to enhance and intensify knowledge in a variety of geologic topics. They may include lectures, discussions, and field excursions at the discretion of the instructor. Specific topics for seminars will be listed in the class schedule for a particular semester. Pass/No Pass/Letter Grade Option or Standard Letter Grade. Fees may be required – Payable at Registration (UC Credit Limitation/CSU)

The courses taught by this department contribute to the following ISLO/PSLOs: A-Breadth of Knowledge, Competencies, and Skills; specifically, the following ISLO/PSLO subcategories: A1- Science, Technology, Engineering, and Mathematics.