GEOLOGY

Career Opportunities

B.S. Level

Consulting Geologist
Engineering Geologist
Geological Technician
Environmental Geologist
Field Geologist
Laboratory Research Worker
Petroleum Geologist
Marine Geologist

Faculty

Full-Time
Thomas O'Neil

Part-Time
Monem Abdel-Gawad
Holly Dodson
Joseph Saenz

Geology Courses

GEOL R101—Physical Geology **3 units**
3 hours lecture weekly
This course is a survey of the earth and the processes that shape it. The course offers an overview of plate tectonics, volcanism, earthquakes, mountain building, weathering, erosion, soil, origin of minerals and rocks, and water and energy resources. Physical geology is for those students who wish to complete a general education physical science course to transfer to a university. Field trips may be required. (2)
Transfer credit: UC, CSU (CAN: GEOL 6; GEOL 2 (GEOL R101 + R101L)

GEOL R101L—Physical Geology Laboratory **1 unit**
Prerequisites: GEOL R101 or concurrent enrollment.
3 hours lab weekly
Introduction to study of geologic and topographic map reading and analysis; also, study of subsurface techniques utilized in determining subsurface structure as well as evolution of present-day landscape. Rock forming mineral identification and rock identification are stressed. Field trips are required. (2)
Transfer credit: UC, CSU (CAN: GEOL 2 (GEOL R101 + R101L)

GEOL R102—Earth's History **3 units**
Prerequisites: GEOL R101 or GEOL R104.
3 hours lecture weekly
Geologic history of the earth; evolution of continents, ocean basins, and major landforms; development of plant and animal life as revealed in the fossil record; emphasis on geology of Ventura basin. (2)
Transfer credit: UC, CSU

GEOL R103—Introduction to Oceanography **3 units**
3 hours lecture weekly
This course is a broad survey of the field of oceanography. Topics include geology and geography of ocean basins and coastlines, plate tectonics, waves, currents, tides, properties of seawater, methods of oceanographic exploration, and an introduction to Marine Biology. Physical oceanography is for those students who wish to complete a general education physical science course to transfer to a four-year university. Field trips may be required. (Same as MST R103) (2)
Transfer credit: UC, CSU

GEOL R103L—Introduction to Oceanography Laboratory **1 unit**
Prerequisites: GEOL R103 or concurrent enrollment
3 hours lab weekly
Experimental studies of the basic methods of data collection and interpretation in physical oceanography in both the laboratory and field. Field trips and boat fees may be required. (Same as MST R103L)
Transfer credit: UC, CSU

GEOL R104—Geology of the National Parks and Monuments **3 units**
3 hours lecture weekly
Survey of various national parks and monuments and divergent theories of their origins. Numerous park and monument features and their geologic causes, including climatic and biotic factors, are emphasized through lectures, rock specimens, and visuals. (2)
Transfer credit: CSU

GEOL R105—Geology of California **3 units**
Prerequisites: GEOL R101 or GEOL R104.
3 hours lecture weekly
Physical and historical geology of California. Consideration given to the twelve geomorphic provinces within California, their rocks and minerals, and processes which produced their varied landscapes. Stratigraphic record discussed with particular reference to important geological formations found within the state. (2)
Transfer credit: UC, CSU

GEOL R106A—Field Geology of the Southwest I **2 units**
Prerequisites: GEOL R101, GEOL R104, or GEOL R105.
24 hours lecture, 24 hours lab for one week
Field investigation of geologic phenomena with emphasis on the origin and development of the geology of selected areas of the Southwest. Principle component of this course is a multi-day field trip scheduled during the vacation periods. Students are responsible for providing camping equipment and food. Materials fee is required. (2)
Transfer credit: CSU

GEOL R106B—Field Geology of the Southwest II **2 units**
Prerequisites: GEOL R106A.
24 hours lecture, 24 hours lab for one week
Field investigation with emphasis on recognition of geologic phenomena. Principle component of this course is a multi-day field trip scheduled during the vacation periods. Students are responsible for providing camping equipment and food. Materials fee is required. (2)
Transfer credit: CSU

GEOL R107—Geologic Hazards **3 units**
3 hours lecture weekly
Application of geology to naturally-occurring problems such as earthquakes, volcanoes, landslides, ground water pollution. Local conditions emphasized. Field trips may be required. (2)
Transfer credit: UC, CSU

GEOL R110—Mineralogy **5 units**
Prerequisites: GEOL R101, GEOL R101L, CHEM R110; CHEM R120 is recommended for Geology majors.
3 hours lecture, 6 hours lab weekly
Study of principal rock-forming minerals, plus those of economic value. Crystallography, mineral chemistry, physical properties, occurrence, origin and association of common minerals emphasized. Field trips may be required. (2)
Transfer credit: UC, CSU

GEOL R178—Geological Marine Resource Management **1 unit**
Corequisites: BIOL R170.
3 hours lab weekly
Topics in related areas in marine geology related to current resource management issues in this region. Study of requirements and applications of federal, state, and local laws and regulations related to marine resource management. Field trips will be to natural areas where geological, biological, and oceanographic interactions can be observed. Course may be taken four times. (Same as MST R178) (2)
Transfer credit: CSU

GEOL R199—Directed Studies in Geology/Oceanography **1-3 units**
Lecture and/or lab hours as required by unit formula
Designed for students interested in furthering their educational knowledge of geology on an independent study basis. Course may be taken two times. (2)
Transfer credit: CSU