

GEOLOGY (GEOL)

GEOL-100 Physical Geology **4 Units (LAB 48-54, LEC 48-54)**

This course offers the student an understanding of planet Earth as an isolated, uniform, and dynamic system. Topics range from materials in the earth (crystals and rocks) to planet processes (explosive volcanoes; devastating landslides; and glistening glaciers) to an understanding of our planet's interior (destructive earthquakes and fiery cracks within deep sea floors). We live on a satellite isolated in space; our interactions with this dynamic, fragile system will determine our ultimate survival.

Recommended Preparation: College-level reading skills.

Cal-GETC Area(s): AREA-5A, AREA-5C

AA/AS General Education: AA/AS A

GEOL-103 Environmental Geology **3 Units (LEC 48-54)**

This course will explore disasters such as earthquakes, hurricanes, landslides, volcanoes, floods, tsunamis, and asteroid and comet collisions of asteroids with earth. Emphasis will be placed on the causes and effects of natural hazards, and the dramatic impact of such events on humans, as well as the role of humans in exacerbating the dangers of the natural world.

Recommended Preparation: College level reading skills.

Cal-GETC Area(s): AREA-5A

AA/AS General Education: AA/AS A

GEOL-105 Historical Geology **4 Units (LAB 48-54, LEC 48-54)**

This course examines the dramatic events of Earth's creation and development using Darwinian Theory and geologic time by venturing through the fossil record. Students explore Earth's unfolding saga starting from the Big Bang and following the violent tectonic relationships on the planet while investigating past life. Exciting topics include volcanoes, crystals, colliding continents, ancient oceans, radiometric dating, trilobites, dinosaurs, mass extinctions, mammals, the transition of reptiles to birds, and finally the evolution of Homo sapiens.

Recommended Preparation: College-level reading skills and GEOL-100.

Cal-GETC Area(s): AREA-5A, AREA-5C

AA/AS General Education: AA/AS A

GEOL-106 Earth Science **4 Units (LAB 48-54, LEC 48-54)**

This non-majors introductory course reviews current topics in the fields of Astronomy, Geography, Meteorology, Geology, and Oceanography with an emphasis on the change in space and time for Earth as a system in a global environment. Topics include Earth's motions, the solar system, deep space, plate tectonics, minerals, rocks, earth's history, ocean, atmosphere, the water cycle, flooding, erosion, climate change, extinction, pollution, and human impact.

Cal-GETC Area(s): AREA-5A, AREA-5C

AA/AS General Education: AA/AS A

GEOL-107 Scenic Adventure Field Trips in Geology (formerly Geologic Field Trips)

1.5 Unit (LAB 24-27, LEC 16-18)

This course visit various locations including Death Valley, the Grand Canyon, and Owens Valley. It provides field experiences, gives greater insight into tectonic Earth shaping forces, and help students discover the fantastic mineral and rock wealth created by alternating ice age climates. A three hour prep class meeting and overnight camping will be required.

AA/AS General Education: AA/AS A

GEOL-109 Geology of National Parks **3 Units (LEC 48-54)**

This course reviews the landforms, rocks, and minerals that create the spectacular wonders of national parks throughout the United States. Emphasis is on materials (rocks, minerals); processes (weathering, erosion, mountain building); structure (folds, faults); stratigraphy (geological formations); and Earth's interior (plate tectonic processes). Upon completion students will be able to understand and described the geologic materials and environments of the United States national park system.

Cal-GETC Area(s): AREA-5A

AA/AS General Education: AA/AS A

GEOL-110 Oceanography **4 Units (LAB 48-54, LEC 48-54)**

This course focuses on geological, physical, chemical, biological, and meteorological aspects of oceans and continental margins. Topics include marine science and biology, critical global warming issues involving the thermohaline current, tsunamis, earthquakes, undersea volcanoes, and the effects/causes of El Nino. This course includes laboratory experiences and is intended for both the science and non-science student.

Cal-GETC Area(s): AREA-5A, AREA-5C

AA/AS General Education: AA/AS A

GEOL-111 Planetary Astronomy **3 Units (LEC 48-54)**

This course is an introductory course to Planetary Sciences and is an interdisciplinary scientific exploration of the solar system. Students will use the scientific method to examine properties and processes of solar system function and formation including the current hypotheses regarding the creation and evolution of the Earth and planetary bodies (moons, asteroids, comets, meteors, and the Sun). *Cross-listed as ASTR-111.

Cal-GETC Area(s): AREA-5A

AA/AS General Education: AA/AS A

GEOL-299 Special Projects: Geology **1-3 Unit (IS 16-54)**

Students with previous course work in the program may do special projects that involve research and special study. The actual nature of the project must be determined in consultation with the supervising instructor.

Prerequisite: Two Geology classes must be completed prior to enrollment; a Special Projects contract must be completed with the instructor prior to enrollment.