

# GEOLOGY (GEOL)

## GEOL-104

### Earth Science

3 UNITS

3.0 hours lecture

This physical science course studies the patterns and processes that define Earth's major physical systems, the basic energy and material flows by which these systems operate, and the comparative place of our planet within the larger solar system. Topics will be investigated at global, regional and local scales and will provide a general synthesis of the disciplines of astronomy, geology, physical geography, meteorology and oceanography. Environmental disturbance and climate change will be addressed within the context of the topics described above. (C-ID GEOL 120) (CSU/UC) (AA/AS-B, CSU-B1, IGETC-5A)

## GEOL-105

### Physical Geology: Earth Systems Laboratory

1 UNITS

Prerequisite: "C" grade or higher or "Pass" in GEOG 120 or GEOL 104 or equivalent or concurrent enrollment in either course

3.0 hours laboratory

This course is designed to explore the Earth's physical environment, complementing either the physical geography lecture course (GEOG 120) or the Earth Science lecture course (GEOL 104) through practical applications of materials covered in these courses. This laboratory course enhances the observational and analytical skills that are vital to understanding Earth's major physical and chemical systems including atmospheric, hydrospheric, lithospheric and biospheric processes and the Earth's place within the Solar System. Exercises will utilize the methods of scientific inquiry to explore the Geographic Grid, Earth-Sun relationships; weather and climate; the rock cycle; plate tectonics, including faulting, earthquakes, hot spot volcanism and plate boundary dynamics; erosional and depositional environments; landform genesis, identification and geomorphic change; soil and vegetation distributions and habitat analysis. Students gain experience with map interpretation/analysis, unit conversions and dimensional analysis, field work using GPS, compass, clinometer, and other specialized equipment. Special attention is given to the unique local setting of San Diego County especially as exhibited in the Cuyamaca College Nature Preserve where field experiences are incorporated into laboratory exercises on a regular basis. Also listed as GEOG 121. Not open to students with credit in GEOG 121. (C-ID GEOG 111) (CSU/UC) (AA/AS-B, CSU-B3, IGETC-5C)

## GEOL-110

### Planet Earth

3 UNITS

3.0 hours lecture

Introductory physical science course investigating the composition of the earth and the geologic processes by which it formed. Emphasis is placed on the unifying theory of plate tectonics and the associated activities of volcanism, earthquakes, and mountain building. Topics include crystals, minerals and rocks, their distribution within the planet, and the evolution of the earth across deep time. The sculpturing of the surface of the planet by wind, waves, streams, glaciers and landslides will also be considered. (C-ID GEOL 100) (CSU/UC) (AA/AS-B, CSU-B1, IGETC-5A)

## GEOL-111

### Planet Earth Laboratory

1 UNITS

Prerequisite: "C" grade or higher or "Pass" in GEOL 110 or equivalent or concurrent enrollment

3.0 hours laboratory

Physical science laboratory course to accompany and augment GEOL 110. Includes laboratory and field investigations of the Earth, emphasizing hands-on experience with minerals, rocks and landforms, as well as topographic and geologic maps. (C-ID GEOL 100L) (CSU/UC) (AA/AS-B, CSU-B3, IGETC-5C)

## GEOL-122

### Regional Field Studies in Physical Geography and Geology of Desert Environments

1 UNITS

Recommended Preparation: "C" grade or higher or "Pass" in GEOG 120, GEOL 104, or GEOL 110 or concurrent enrollment

1.0 hours lecture, 1.0 hours laboratory

Are you interested in science and enjoy spending time outdoors? Explore the desert and learn about regional geology and geography with this field studies course! Regional Field Studies in Physical Geography and Geology of Desert Environments provides focused experience in geological and geographical field studies of desert environments in California and western North America. This course emphasizes use of the scientific process, observation, and interpretation of geologic and geographic phenomena in desert environments through direct experience in a field setting. This course centers around multi-day weekend field trips to desert environments in addition to on-campus meetings prior to and immediately following the field trips. Students must supply their own camping gear (sleeping bag, tent, etc.) and attend all class meetings and field trips. Also listed as GEOG 122. Not open to students with credit in GEOG 122. (CSU)