GEOLOGY (GEOL)

GEOL 2020 Historical Geology (4 Credits)
Historical geology is the study of the evolution of Earth through geologic time. Geologic features such as rock types and fossils are used to interpret and date past events. This course specifically introduces the basic geologic principles underlying historical geology, the geologic evolution of North America, and the evolution of life on Earth.

GEOL 2400 Geology and Ecology of the Southwest (5 Credits)
This field class emphasizes firsthand observations of the interactions among environmental properties (including substrate geology, soils, and climate) and natural vegetation in the Colorado Front Range, Rio Grande Rift, and Chihuahuan desert regions of New Mexico and southeastern Arizona. The course also examines Pliocene and Quaternary volcanism in southern Colorado and New Mexico in addition to Paleozoic and Mesozoic geology along the uplands of the Rio Grande Rift. Prerequisite: permission of instructor.

GEOL 3100 Environmental Geology (4 Credits)
Environmental geology examines geologic hazards, both natural and those attributable to human impacts on the environment from urban and regional development. Specific topics may include disposal of municipal solid waste and radioactive waste; flood, earthquake, volcanic hazards; groundwater pollution and withdrawal; mass-wasting phenomena; and energy-related issues. Prerequisite: GEOL 1010, GEOG 1203 or instructor's permission.

GEOL 3540 Hydrology (4 Credits)
This course provides an overview of the hydrologic cycle with emphasis placed on the study of applied hydrology. Discussions include the fundamental characteristics of precipitation, runoff processes, calculation of flood hazards, aquifers (porosity and permeability), the geologic settings of groundwater, the basic physics of groundwater flow, and water supply and use. Prerequisite: GEOL 1010, GEOG 1203 or instructor's permission. Recommended prerequisite: one introductory statistics course.

GEOL 3900 Geomorphology Seminar (1-5 Credits)
Hill slopes comprise the vast majority of the Earth's land surface. It is upon these surfaces that nearly all of the human population must exist and, hopefully, flourish. Hill slopes assume various forms, and their shape influences their utility for various human endeavors. Numerous geomorphic processes operate upon hill slopes to determine their form, and human activities strongly influence the frequency and magnitude of these geomorphic processes. Consequently, hill slopes are an interface between the Earth and the human population. Prerequisite: GEOL 3010 or permission of instructor.

GEOL 3991 Independent Study (1-5 Credits)