

GEOLOGY (GEOL)

GEOL S104 *Physical Geology

4 credits (3+3)

GER. Introduction to the study of the Earth as a dynamic and evolving planet. Examination of Earth's composition and processes, with emphasis on the work of Earth's interior, tectonic forces, earthquakes, volcanoes, gravity, water, ice, and our atmosphere in continuously modifying our planet. Labs include the study of minerals, rocks, plate tectonics, fossils, maps, geologic time, stratigraphy, landforms, and geologic structures.

Prerequisite: MATH S105 or concurrent enrollment, or placement test.

GEOL S105 *Geological History of Life

3 credits (3+0)

GER. A multi-billion year survey of the origin and evolution of our planet and the diverse life forms it has hosted throughout geologic time. Investigation of such topics as the formation of our solar system, the fossil record, geologic environments, shifting climates and continental configurations, the rise and fall of mountain ranges, mass extinctions, humans as a new geologic force, and the methods scientists use to uncover our past.

GEOL S301 Geomorphology

4 credits (3+3)

The study of landforms and the soils associated with them, including their features, processes, materials and development over time. Emphasis is also placed on the application of concepts and techniques from geomorphology to understanding interactions between human activities and landforms and soils.

Prerequisite: GEOL S104 or ENVS S102.

GEOL S302 Hydrology

4 credits (3+3)

An introduction to hydrology emphasizing physical processes and interactions between hydrological phenomena and human activities. Hydrological measurements, data analysis, quantitative descriptions, and field observations are fundamental to this course.

Prerequisite: ENVS S102 or GEOL S104, and MATH S152.

GEOL S320 Mineral, Energy, and Renewable Resources

3 credits (3+0)

An in-depth examination of the geologic occurrence and formation of mineral, energy, and groundwater resources, their extraction and use, with particular emphasis on associated environmental impacts. Focus is on metallic ore deposits, nonmetals, petroleum resources, coal, alternative energy resources, and aquifers.

Prerequisite: GEOL S104 or ENVS S102.