

# GEOLOGICAL SCIENCES (GLY)

## GLY 101 (3 credit hours)

### Physical Geology

Introduces the principles of physical geology, including study of minerals and rocks, volcanoes and earthquakes, plate tectonics, and the landforms of Earth's surface. Requires concurrent enrollment in GLY 111. Lecture: 3 credits (45 contact hours).

**Attributes:** SN - Science

**Components:** LEC: Lecture

## GLY 110 (3 credit hours)

### Environmental Geology

Introduces and applies basic geological concepts to current environmental issues including the availability and use of water and soil resources, pollution causes, effects and solutions, and causes and prediction of environmental hazards including floods, landslides, subsidence, earthquakes and volcanoes. Lecture: 3 credits (45 contact hours).

**Attributes:** SN - Science

**Components:** LEC: Lecture

## GLY 111 (1 credit hours)

### Physical Geology Laboratory

Identify minerals and rocks in hand specimens, interpret landscape features as shown on topographic maps, and study geologic maps. Laboratory: 1.0 credit (30 contact hours).

**Co-requisite:** GLY 101.

**Attributes:** SL - Science Laboratory

**Components:** LAB: Laboratory

## GLY 114 (1 credit hours)

### Environmental Geology Laboratory

Introduces and applies basic geologic concepts in a laboratory setting to current environmental issues, including the availability, use, and testing of water and soil resources, as well as the effects, solutions, and causes of pollution. Laboratory: 1 credit (30 contact hours).

**Pre- or co-requisite:** GLY 110.

**Attributes:** SL - Science Laboratory

**Components:** LAB: Laboratory

## GLY 125 (3 credit hours)

### Geology of the National Parks and Monuments

Introduces the principles of physical geology within the context of the U.S. National Parks and Monuments, including Earth materials, geologic time, plate tectonics, and the surface and internal processes that have shaped and continue to shape the Earth as related to specific National Park and Monument sites. Includes an overview of the history of the park system and its unique role in understanding and preserving our natural history and environment. Lecture: 3.0 credits (45 contact hours).

**Attributes:** SN - Science

**Components:** LEC: Lecture

## GLY 130 (3 credit hours)

### Dinosaurs and Disasters: A Brief History of the Vertebrates

Examines dinosaurs' interactions with their environment, their indirect influence on mammals, and implications for humankind. Traces the history of dinosaurs from early vertebrate ancestors to their final extinction, and surveys the evolutionary, paleogeographic, environmental, and possible extraterrestrial causes for their rise to dominance and sudden fall. Lecture: 3.0 credit hours.

**Attributes:** SN - Science

**Components:** LEC: Lecture

## GLY 131 (1 credit hours)

### Dinosaur Laboratory

Augments GLY 130 in analysis and interpretation of fossils, scale models, and sedimentary rocks. Investigates specimens and examines features of dinosaurs and related fossils. Uses sedimentary rocks and fossils to interpret ancient environments, dinosaur anatomy, and geologic history. Demonstrates to students how science works. Lab: 1.0 credit (30 contact hours).

**Pre- or co-requisite:** GLY 130.

**Attributes:** SL - Science Laboratory

**Components:** LAB: Laboratory

## GLY 140 (3 credit hours)

### Introduction to Oceanography

Investigates geologic, physical, biogeochemical, and biologic processes that occur within the oceans of the world. Emphasizes connections between these processes and how those connections interact with our planet's life. Explores geologic evolution of the ocean floor, dynamic composition of ocean water, lithospheric and atmospheric interactions with the hydrosphere, marine life and ecosystems, and the impact of human activity on marine ecosystems. Lecture: 3.0 credits (45 contact hours).

**Attributes:** SN - Science

**Components:** LEC: Lecture

## GLY 220 (4 credit hours)

### Principles of Physical Geology

Learn how the Earth works: an integrated course in physical geology, covering the physical, chemical and biological processes that combine to produce geological processes. Focuses on plate tectonics, earth surface processes, and properties and formation of earth materials. Lab exercises emphasize identification and interpretation of geologic materials, geologic maps and cross sections. Lecture: 3 credits (45 contact hours); Laboratory: 1 credits (30 contact hours).

**Attributes:** SL - Science Laboratory, SN - Science

**Components:** LAB: Laboratory, LEC: Lecture