

# Virginia Western Community College

## GOL 106

### Historical Geology

#### Prerequisites

A placement recommendation for ENG 111 or successful completion of all developmental English requirements. GOL 105 recommended but not required.

#### Course Description

Traces the evolution of the earth and life through time. Presents scientific theories of the origin of the earth and life and interprets rock and fossil record.

**Semester Credits: 4**

**Lecture Hours: 3**

**Laboratory Hours: 3**

#### Required Materials

No required materials.

#### Course Outcomes

**At the completion of this course, the student should be able to:**

- Relate topics from physical geology to Earth's history (e.g. plate tectonics, rock cycle).
- Apply relative and absolute dating principles to interpret the geologic history of rock units.
- Analyze the formation, classification and interpretation of sedimentary rocks and apply stratigraphic principles to interpret the rock record.
- Explain the theory of biological evolution and how it explains the distribution, diversity, and extinction of organisms.
- Identify and classify fossils (including mode of preservation) and apply them to interpret age and environment of strata.
- Characterize each period of Earth's history (beginning with its origin) concerning changes in the paleogeography, environment, and biota.
- Improve their observational deductive reasoning skills as well as critical thinking ability.

**Topical Description**

<u>Topics</u>	<u>Unit</u>
1. Geologic Time—Concepts and Principles	1
2. Rocks, Fossils, and Time	2
3. Origin and Interpretation of Sedimentary Rocks	3
4. Evolution—Theory and Its Supporting Evidence	4
5. Plate Tectonics	5
6. Precambrian History: The Archean Eon	6
7. Precambrian History: The Proterozoic Eon	7
8. Geology and life of the Early Paleozoic Era	8
9. Geology and life of the Late Paleozoic Era	9
10. Geology and life of the Mesozoic Era	10
11. Geology and life of the Cenozoic Era: Tertiary Period	11
12. Geology and life of the Cenozoic Era: Quaternary Period	12

**Notes to Instructors**

None.