

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.