

GOL-106

Historical Geology

Faculty Name: Dr. Anna Balog-Szabo

Program Head: Dr. Anna Balog-Szabo

Dean's Review:

Dean's Signature: _____ **Date Reviewed:** ___/___/_____

Revised: Fall 2016

VIRGINIA WESTERN COMMUNITY COLLEGE
PO Box 14007
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GOL-106

Historical Geology

COURSE OUTLINE

Prerequisites:

None, GOL 105 Physical Geology strongly suggested

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 records.

Semester Credits: 4 Lecture Hours: 3 Lab: 3
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Course Outcomes

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

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

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Required Materials:

Textbook:

The Changing Earth, 7th edition, Monroe & Wicander, Cengage, ISBN #: 9781285733418

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Topical Description: (Outline chapters and sections to be covered in the book – may include timeline)

Topical Description

<u>Topics</u>	<u>Chapter</u>
1. Geologic Time—Concepts and Principles	17
2. Rocks, Fossils, and Time	
3. Origin and Interpretation of Sedimentary Rocks	6
4. Evolution—Theory and Its Supporting Evidence	18
5. Plate Tectonics	2
6. Precambrian History: The Archean Eon	19
7. Precambrian History: The Proterozoic Eon	19
8. Geology of the Paleozoic Era	20
9. Life of the Paleozoic Era	21
10. Geology of the Mesozoic Era	22
11. Life of the Mesozoic Era	23
11. Cenozoic Geologic History: Tertiary Period	24
12. Cenozoic Geologic History: Quaternary Period	25
13. Life of the Cenozoic Era	26

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