GOL-105
Physical Geology

Fall 2016

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
Roanoke, VA 24038
(540)-857-7273

GOL-105
Physical Geology

COURSE OUTLINE

Prerequisites:

None

Course Description:

Introduces the composition and structure of the Earth and modifying agents and processes. Investigates the formation of minerals and rocks, weathering, erosion, water cycle, earthquakes, and crustal deformation.

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. Understand the difference between minerals and rocks and how each contributes to the solid framework of the earth
2. Discuss the major properties of minerals and use simple laboratory tests to demonstrate these properties so as to identify common rock-forming minerals
3. Differentiate between the three main types of rocks and use simple laboratory tests to identify common rocks;
4. Understand and describe processes shaping the earth (e.g. weathering, stream action, wind, glaciers, ground water, etc.)
5. Understand the most important aspects of the earth's interior structure;
6. Be aware of how plate tectonics influences the shaping of the earth through volcanism, earthquakes, and mountain building;
7. Develop a better understanding of the earth’s energy resources and how they influence our everyday lives.
8. Utilize her/his basic knowledge of geology to live a more fulfilling and effective life as a global citizen.

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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)

	Topics	Chapter
1.	Understanding Earth: A Dynamic and Evolving Planet	1
2.	Plate Tectonics: A Unifying Theory	2
3.	Minerals—The Building Blocks of Rocks	3
4.	Igneous Rocks and Intrusive Igneous Activity	4
5.	Volcanoes and Volcanism	5
6.	Weathering, Soil, and Sedimentary Rocks	6
7.	Metamorphism and Metamorphic Rocks	7
8.	Earthquakes and Earth's Interior	8
9.	Deformation, Mountain Building, and the Continents	10
10.	Mass Wasting	11
11.	Running Water	12
12.	Groundwater	13
13.	Glaciers	14
14.	Shorelines and Shoreline Processes	16

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Notes to Instructors
(List information about optional topics, departmental exams, etc)

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