

# Common Course Outline

## ERSC 101

### Earth Science

4.00 Semester Hours

## The Community College of Baltimore County

### Description

#### **Earth Science**

Provides a survey of geology, oceanography, meteorology, and astronomy; the laboratory portion introduces basic procedures of science.

Prerequisite: (RDNG 052 or LVR 2 or ESOL 052) and (ENGL 052 or LVE 2 or ESOL 054) and (MATH 082 or LVM 2)

### Overall Course Objectives

Upon completion of this course the student will be able to:

1. describe the scientific method
2. describe Earth's internal and external heat engines
3. describe the materials of the Earth's crust
4. describe the ways of determining relative and absolute time
5. describe the processes involved in volcanic and intrusive igneous activity
6. describe the weathering process and the formation of sedimentary rock
7. describe processes of crustal deformation
8. describe the topography of the sea floor and tectonic processes
9. describe the origin and evolution of the atmosphere
10. describe the composition, heating and circulation of the atmosphere
11. describe the factors that generate weather
12. describe the source of ocean water and its salt
13. describe the physical properties of ocean water and its movements
14. describe the processes that shape coastlines
15. describe the motions of the Earth through space
16. describe the history of the development of astronomical thought
17. describe the composition, structure, history and motions of the Moon
18. describe the properties of the other planets of our solar system
19. describe the composition, internal structure and activity of the sun

### Major Topics

- I Earth cycles and materials
- II Igneous activity
- III Weathering and sedimentary processes

- IV Deformations and plate tectonics
- V Properties of the atmosphere and weather
- VI Ocean water properties
- VII Coastal processes
- VIII Earth motions and historical astronomy
- IX Survey of the Moon and planets
- X the Sun

**Course Requirements** (List only those requirements that will be common to all sections of the course.)

Grading/exams: Grading procedures will be determined by the individual faculty member but will include the following:

Several exams will be scheduled during the course of the semester, including a final exam. All of the exam questions will be based upon a list of learning objectives provided by the instructor with the individual section syllabus. In-class sections will have frequent quizzes to help prepare for the exams. World Wide Web sections will take exams at proctored test sites..

Lab Component: This course has a laboratory which counts as 25% of the course grade.

Writing: The individual faculty member will determine specific writing assignments.

### **Other Course Information**

This course is a General Education core course and a Science elective.

This course is also offered on-line as a World Wide Web course and in self-paced format.

This course may be used to fulfill 4 credits if the General Education requirement in Physical and Biological Sciences.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common Course Outline.

Date Revised: 2/15/00