

# **Common Course Outline**

**ERSC 142**

**Oceanography Laboratory**

**1.00 Semester Hour**

## **The Community College of Baltimore County**

### **Description**

#### **Oceanography Laboratory**

Provides experience in working with oceanographic data and techniques; includes determination of chemical and physical properties of seawater, investigations of biological communities, and examination of coastal and shoreline features.

Prerequisite: ERSC 141 (concurrent or previous)

### **Overall Course Objectives**

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

1. describe how contouring is used to show sea floor topography
2. describe how the epicenter of an earthquake may be located by using seismic data.
3. describe the composition, appearance and lifestyle of various planktonic organisms.
4. describe the distribution and environmental uses of the sea grass meadows in the Chesapeake Bay.
5. describe various inhabitants of the sea grass meadows
6. describe the conditions found in the intertidal zone.
7. describe the advantages and disadvantages of living in the intertidal zone.
8. describe various adaptations of organisms living within the intertidal zone.
9. describe the common erosional and depositional features found along the coastline
10. plot data on a Temperature-Salinity diagram and determine depths of thermocline and halocline.
11. use plotted data to determine origin of water masses and predict water flow.
12. plot a tide curve from given data.
13. describe the various plants found in the salt marsh.
14. describe the animal life found in the salt marsh.
15. describe the value of the salt marsh to the environment.
16. describe the adaptations of various fish to the marine environment.
17. Use a fish key to identify some common fish of the Chesapeake Bay.

## **Major Topics**

- I Bottom analysis
- II Earthquakes and plate tectonics
- III Plankton and simple invertebrates
- IV Sea grass
- V Currents and tides
- VI Coastlines
- VII Salt marsh
- VIII Intertidal zone
- IX Fish

## **Course Requirements**

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

Completed lab projects, and a mid-term and final exam. Extra credit field trips are available.

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 as self-paced and telecourse sections.

This course, when taken along with ERSC 141, Introduction to Oceanography, may be used as a lab science to fulfill 4 credits of 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