

**ENVS 101**  
**Introduction to Environmental Science**  
3 Credits

Community College of Baltimore County  
Common Course Outline

**Description**

**ENVS 101 – Introduction to Environmental Science:** is a course that explores the inter-relationships between humans and the Earth's ecosystems. Fundamentals of ecology, water resources, populations, energy, climate, and nutrient cycling will be covered, as well as the impact of human use and management of the Earth's energy, land, water, and air resources. For students needing a lab course, ENVS 102: Introduction to Environmental Science Laboratory, serves as the accompanying lab.

**Pre-requisites:** ACLT 052 or ACLT 053 or (ESOL 052 and ESOL 054) and MATH 082  
**Co-requisite:** ENGL 101

**Overall Course Objectives**

Upon completion of this course, students will be able to:

1. engage in problem solving of environmental issues;
2. delineate biogeochemical cycles within an ecosystem;
3. describe the flow of energy through an ecosystem;
4. describe factors that define various ecosystems;
5. apply appropriate scientific terminology to describe attributes of ecosystems and their interactions;
6. present environmental information using effective written and/or oral communications;
7. describe data, numerically and graphically;
8. create graphical representations of data using appropriate technology;
9. apply results from scientific observations to the solution of environmental problems;
10. evaluate a wide range of solutions to environmental problems;
11. discuss concepts of environmental justice;
12. summarize major environmental policies and regulations;
13. assess the effect of individual behavior on environmental issues;
14. evaluate technologies that prevent, control, and reverse environmental harm;
15. develop informed views based on critical evaluation of both scholarly and popular resources;
16. describe the impact human activities have on natural systems; and
17. find, evaluate, use, and cite academic resources pertaining to environmental science.

**Major Topics**

- I. Nature of environmental science
- II. Biogeochemical cycles
  - a. Water

The Common Course Outline (CCO) determines the essential nature of each course.  
For more information, see your professor's syllabus.

- b. Carbon
- c. Nitrogen
- d. Phosphorus
- III. Ecosystem services
- IV. Ecology and biodiversity
- V. Atmosphere
- VI. Climate change
- VII. Water resources
- VIII. Land resources
- IX. Human population
- X. Energy
  - a. Non-renewable energy
  - b. Renewable energy
- XI. Environmental regulation
- XII. Remediation
- XIII. Sustainability

### **Course Requirements**

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- 3 exams and 2 quizzes
  - Total exam points must be worth 50-60% of the overall course grade
  - The final exam is cumulative
- 1 activity requiring student collaboration
- 1 in-class activity or presentation
- 2 written assessments based on supplementary materials

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their professor.

### **Other Course Information**

This course is an approved 3–credit General Education course in the Biological and Physical Sciences but does not fulfill the laboratory requirement.

One or more assignments will infuse CCBC General Education Program outcomes and will account for a minimum of 10% of the total course grade. The assignment(s) will allow students to demonstrate at least 5 of the 7 General Education program outcomes.

When successfully completed, along with the companion course, ENVS 102, Introduction to Environmental Science Laboratory, the combined courses constitute an approved 4-credit Biological and Physical Sciences General Education course.

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