



Course Outcome Summary

General Education Satisfier Course

BIOL 156 Introduction to Environmental Science

Course Information

Division	Science/Mathematics
Course Number	BIOL 156
Course Name	Introduction to Environmental Science
Contact Hours	45
Lab Hours	45
Total Credits	4

Prerequisites

Reading 090 and English 090; MATH 092 or MATH 105 recommended.

Course Description

An introduction to environmental science stressing fundamental concepts and principles of ecology, ecosystem structure and function, population dynamics, resources and pollution. This course reflects applications of physical, chemical, biological and geological principles to define ecological change, both natural and anthropogenic. Topics include land use, food resources, mineral resources, energy, air, water and the causative interrelationships between human values and socio-economic, political, and environmental problems. Course requires laboratory work. This course is open to both science- and non-science majors.

Exit Learning Outcomes

General Education Goal:	Critical Thinking
Competency:	Understand and apply the elements of scientific inquiry and scientific principles in a natural science laboratory course setting.

General Education Objectives

- Observe and describe natural phenomena and formulate hypotheses.
- Plan and implement scientific experiments to test hypotheses.
- Utilize scientific laboratory skills for data collection within a college laboratory setting.
- Evaluate experimental data and propose solutions based on this data.
- Evaluate the proposed implications of a solution.

Course Outcomes

In order to evidence success in this course, the students will be able to:

- Identify the scientific, social scientific and humanistic aspects of environmental issues.

Linked General Education Objectives

- Observe and describe natural phenomena and formulate hypotheses.
- Plan and implement scientific experiments to test hypotheses.
- Utilize scientific laboratory skills for data collection within a college laboratory setting.
- Evaluate experimental data and propose solutions based on this data.
- Evaluate the proposed implications of a solution.

- Describe the structure and function of significant environmental systems.

Linked General Education Objectives

- A. Observe and describe natural phenomena and formulate hypotheses.
- B. Plan and implement scientific experiments to test hypotheses.
- C. Utilize scientific laboratory skills for data collection within a college laboratory setting.
- D. Evaluate experimental data and propose solutions based on this data.
- E. Evaluate the proposed implications of a solution.

3. Identify, locate, evaluate, synthesize and present current information on environmental issues.

Linked General Education Objectives

- A. Observe and describe natural phenomena and formulate hypotheses.
- B. Plan and implement scientific experiments to test hypotheses.
- C. Utilize scientific laboratory skills for data collection within a college laboratory setting.
- D. Evaluate experimental data and propose solutions based on this data.
- E. Evaluate the proposed implications of a solution.

4. Use scientific reasoning to identify and understand environmental problems, formulate testable hypothesis and evaluate potential solutions.

Linked General Education Objectives

- A. Observe and describe natural phenomena and formulate hypotheses.
- B. Plan and implement scientific experiments to test hypotheses.
- C. Utilize scientific laboratory skills for data collection within a college laboratory setting.
- D. Evaluate experimental data and propose solutions based on this data.
- E. Evaluate the proposed implications of a solution.

5. Critically evaluate arguments regarding environmental issues.

Linked General Education Objectives

- A. Observe and describe natural phenomena and formulate hypotheses.
- B. Plan and implement scientific experiments to test hypotheses.
- C. Utilize scientific laboratory skills for data collection within a college laboratory setting.
- D. Evaluate experimental data and propose solutions based on this data.
- E. Evaluate the proposed implications of a solution.

6. Understand the impact your way of life has on the environment and apply your understanding of environmental issues to your own choices.

Linked General Education Objectives

- A. Observe and describe natural phenomena and formulate hypotheses.
- B. Plan and implement scientific experiments to test hypotheses.
- C. Utilize scientific laboratory skills for data collection within a college laboratory setting.
- D. Evaluate experimental data and propose solutions based on this data.
- E. Evaluate the proposed implications of a solution.