

**COURSE OUTLINE**  
**ENST-233**  
**Introduction to Environmental Health**  
**3 Credits**

**HOWARD COMMUNITY COLLEGE**

**Description**

This course examines the impact that environmental factors such as air, water and food have on human health and well-being, and how people influence the quality of their environment. Students will learn about how human evolution and prosperity results in challenges associated with pollution, overpopulation, health economics, environmental policy, and other issues. Environmental health tools, such as epidemiology, toxicology, policy, and regulation will be applied to current issues of concern. (3 hours weekly) NOTE: Also listed as PUBH-233.

**Overall Course Objectives**

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

1. Describe the earth and its environment, and explain how normal geological processes and cycles of life are important for human health and survival.
2. Describe the fundamental processes that are involved in environmentally incurred disease, including biological, chemical and physical agents.
3. Identify populations most susceptible to environmental health hazards.
4. Demonstrate an understanding of environmental health problems based on scientific principles.
5. Discuss the role that air, water and soil quality have on health and the quality of life.
6. Identify the human activities that lead to pressures on the environment, and effects of exposure to degraded environmental conditions to human health.
7. Define the steps in the risk assessment and risk management process.
8. Evaluate the benefits and limitations of the scientific strategies that are available for the prevention or remediation of environmental health hazards and list several ways that global environmental concerns have been addressed.
9. Describe current legislation and regulation regarding environmental issues.
10. Explain what is meant by green architecture, green energy and green transportation and define sustainable growth.

**Major Topics**

- I. Environmental Principles
  - A. The Atmosphere, Lithosphere, Hydrosphere and Biosphere
  - B. Cycles of Life
  - C. Impact of Humans on the Environment
  
- II. Environmental Impact on Humans
  - A. Environmental Diseases
  - B. Toxins and Toxicology
  - C. Radiation
  - D. Pests and Pesticides
  - E. Risk Assessment and Intervention

III. Environmental Resources and Pollution

- A. Air
- B. Water
- C. Land
- D. Energy

IV. Public Health Challenges

- A. Food Safety
- B. Waste Management
- C. Occupational Health and Safety
- D. Disaster Preparedness
- E. Environmental Degradation
- F. Public Health Interventions
- G. Sustainability

**Course Requirements**

Grading/exams: Grading procedures will be determined by the individual faculty member but will be calculated on the basis of lecture and lab exams and quizzes, written assignments and projects. This course includes a comprehensive final exam.

**Other Course Information**

This course is a Science elective and an Arts and Sciences elective. Also listed as PUBH-233.