

**NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
ENV 136 – SURVEY OF ENVIRONMENTAL CONCERNS (3 CR.)**

Course Description

Studies the relationship of man to his physical environment; ecological principles; public health; topics of current importance including air pollution, potable water, waste disposal, communicable disease, poisoning and toxicity, radiation, with particular emphasis on community action programs. Lecture 3 hours per week.

General Course Purpose

The general purpose of this course is for students to understand the scientific and policy concepts that are involved in current environmental issues. This course is designed for a general audience, and for students who have a minimal background in science and environmental policy. Essentially, this course is of interest to anyone who wants to learn the scientific and cultural details of contemporary environmental topics. Because there is no laboratory component to this course, it cannot be used toward meeting the general education laboratory science requirement for any degree.

Course Prerequisite/Corequisites

The student should be able to express him/herself both orally and in writing on a college freshman level as measured by a college English competency examination or ENG 111 placement

Course Objectives

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

- Describe the scientific principles that are involved in current environmental issues
- Discern the difference between scientific arguments from non-scientific arguments in environmental conflicts, and be able to evaluate the strengths and relevance of such arguments
- Discriminate among degrees of credibility, accuracy, and reliability of inferences drawn from scientific data for environmental issues, and be able to determine if conclusions drawn from such information are warranted
- Explain the role that culture, personal values, and social institutions have on the perception of environmental problems, and on the potential solutions to such problems
- Describe the purpose of environmental policies, and be able to reason why some policies are more likely to succeed than others
- Describe the basic factors that cause humans to perceive hazards as higher-risk versus lower-risk, and how this relates to environmental concerns
- Describe the environmental issues that are of most concern in the local area, and be able to access and use information about these issues in order to make informed personal decisions about these issues
- State the causes of water pollution and describe how this affects freshwater and marine ecosystems
- State the causes and effects of air pollution, including the causes and effects of global climate change
- Describe the costs and benefits of renewable and non-renewable sources of energy

Major Topics To Be Covered

- An overview of the general biological, physical, and chemical concepts that underlie the foundations of environmental science
- An overview of basic population, community, and ecosystem ecology, as well as biodiversity
- An introduction to environmental policy (including economic, legal, geo-political, cultural, and social aspects)
- Environmental risk assessment and risk management
- Land use issues, focusing on those most pertinent to the local area
- Freshwater and marine resources, including water pollution
- Waste management
- Air quality issues
- Global climate change
- Renewable and non-renewable sources of energy