

Approved Courses for Fall Semester 2013

Category I: Social Sciences/Humanities/Arts

ANTH 253 Environmental Anthropology

A study of the relationships between humans and their environment, with special emphasis on how human lifestyles may be understood as responses to environmental challenges. *Prerequisite: ANTH 151 or 153 or sophomore standing.*

PHIL 309A Topics: Environmental Philosophy

We shall examine what we might mean by 'nature' or 'the natural' and our relation to it. We shall then explore whether and how we have obligations to non-humans such as animals, plants, and ecosystems. In doing so we shall consider moral theories such as utilitarianism, deontology, biocentrism, ecocentrism, deep ecology, and ecofeminism. We shall also critically consider specific current environmental issues, such as climate change, population, consumption, environmental justice, environmental racism, and resource ethics.

POLS 390A Topics: Global Environmental Policy

Category II: Sciences

BIO 145 Ecology and Evolution

This course examines the principles and practice of evolutionary biology, Mendelian and population genetics, and ecology at the individual, population, community, and ecosystem levels.

BIO 342 Ecology

Includes laboratory. The study of interrelationships between organisms and their environment, emphasizing fundamental concepts in ecology, natural history of local habitats and organisms, the process of ecological research, and current issues of interest in ecology. *Prerequisites: BIO 135 and 145, or permission of instructor.*

BIO 345 Conservation Biology

Includes laboratory. This course will address the impacts of humans on Earth's biodiversity, and strategies taken to conserve and protect global natural resources. Topics covered may include global patterns of biodiversity, ecological community structure, habitat exploitation and restoration by humans, genetics of small populations, design of nature reserves, problems associated with invasive species. *Prerequisites: BIO 135 and BIO 145, or permission of instructor.*

GEOS 110 Earth and the Environment

Includes laboratory. An introduction to the materials that make up the earth and the interplay between constructive and destructive processes that shape the earth, including plate tectonics. Laboratories include mineral and rock identification, field trips, and topographic map interpretation.

GEOS 230 Environmental Geology

An intermediate examination of the processes that influence the physical and chemical nature of the Earth's surface with special attention given to the influence of human actions on the lithosphere, hydrosphere, and atmosphere. Students learn how the risks from natural hazards are assessed and minimized; understand the consequences of natural resource extraction; and consider the sources, transportation, fate, and remediation of waste and pollution in the environment. Real-world examples emphasize the importance of these topics for solving environmental problems. *Prerequisite: GEOS 110 or permission of instructor.*

GEO 370 Applied Hydrogeology

Includes laboratory. An investigation of the occurrence and movement of water within the hydrologic cycle. Special attention is given to water quality and water supply concerns. Lab and field work develop skills to apply course concepts to real world problems. *Prerequisite: GEOS 110. MATH 135 proficiency recommended.*

PHYS 110A Physics and Society

Fellows should petition for approval before enrolling in this course. Includes laboratory. The fundamental concepts of classical and modern physics presented with particular attention to their application to questions of importance to members of technological society (such as energy and energy policy). Topics may include Newtonian mechanics, special and general relativity, quantum and nuclear physics

and modern cosmology. *Prerequisite: high school algebra and trigonometry. **Note:** This course does not fulfill the prerequisites for advanced courses in physics, nor the requirements for medicine, engineering or secondary teaching.*