

**Planet OHIO**  
 GRADUATE COURSES ON  
 ENVIRONMENT AND  
 SUSTAINABILITY  
 2008-2009\*, Athens  
 Campus  
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**Spring Courses**

Department	Course #	Credits	Quarter	Course Title	Description
Anthropology	578	5	Spring	<b>Human Ecology</b>	Analysis of mutual and reciprocal relations between sociocultural systems and other systems in their environment; ecosystems and biotic communities in which human populations are included.
Anthropology	594D	4 to 6	Winter	<b>Seminar in Human Ecology</b>	
Biological Sciences	529	5	Spring	<b>Marine Biology</b>	Biological processes in marine and estuarine habitats, and adaptations for life at sea; emphasis on environmental variables affecting distribution, abundance, and dynamics of marine plants and animals. Includes five-day field trip (estimated cost \$100 per student) to temperate marine environment late in quarter; limited to 20 students. 5 lec, field trip.
Biological Sciences	581	4	Spring	<b>Animal Conservation Biology</b>	The roles of population genetics, population and community ecology, biogeography, systematics, and paleobiology in the study of diversity, design of nature reserves, and the recovery of endangered species. Discussion of extinction as a process, the effects of human-induced habitat degradation on loss of species diversity. 4 lec.
Civil Engineering	556	4	Spring	<b>Advanced Wastewater Treatment</b>	Advanced study of theory. Design of biological treatment units. Practice in control methods. 3 lec, 3 lab.
Civil Engineering	570	4	Winter	<b>Soil Engineering</b>	For non-civil engineering majors. Soil composition, physical and chemical properties, and classifications. Water movement and seepage problems; stress distribution, settlement, and shear strength. Applications to earth structures, retaining walls, foundations, and slope stability. 4 lec.
Economics	513	5	Winter	<b>Economics of Environment</b>	Economic analysis of such environmental matters as air, water, and noise pollution; population growth; and land use. Emphasis on use of economic theory and empirical research in evaluating environmental policies.
Economics	514	5	Spring	<b>Natural Resource Economics</b>	No description has been entered for this course.
Economics of Energy	535	5	Spring	<b>Economics of Energy</b>	Economic theory applied to energy policy issues in the U.S., including questions of sources of supply, conservation, pollution control, foreign dependence, monopoly control, special interests, and future generation equity.
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Environmental Health	510	3	Winter	<b>Water and Wastewater</b>	Examination of processes for the development of water resources, quantity and quality requirements, preventative control measures and treatment, collection of wastewater, and treatment, collection of wastewater, and treatment for disposal or reuse. Health implications of water quality stressed. 3 lec. 2 lab.
Environmental Health	525	4	Spring	<b>Environmental Risk Communication</b>	Hands on application of principals in communicating environmental health and safety risk to the public. Students work with current environmental health and safety issues to develop and implement risk communication plans. 4 lec.
Environmental Studies	560	5	Spring	<b>Concepts in Environmental Sustainability and Leadership</b>	Examines global and regional environmental issues and considers the scientific basis for policy options. Concepts and discussion of environmental sustainability and principles of environmental leadership.
Environmental Studies	690	5	Spring	<b>Independent Reading in Sustainability</b>	Directed individual reading and research.
Geography	503	5	Spring	<b>Climatology</b>	Exchanges of energy and moisture and their significance in the use of the earth's surface. Lab.
Geography	533	5	Spring	<b>Appalachia</b>	Topical and regional survey of Appalachia with emphasis on settlement and expansion, landownership and speculation, society and culture, and the impacts of natural resource extraction.
Geography	540	5	Spring	<b>Environmental Impact Analysis</b>	Introduction to analytic techniques, legal responsibilities, and administrative procedures in evaluating environmental impacts of land use change. Practice in production of environmental impact statements and in documenting scientific research.
Geography	544	5	Spring	<b>Agroecosystems</b>	Systematic analysis of agricultural change and sustainability of agricul
Geography	547	5	Winter	<b>Natural Resource Conservation</b>	Themes in American environmental history, resource conservation and management, and contemporary environmentalism.
Geography	548	5	Winter	<b>Gender, Environment, and Development</b>	Explores frameworks linking gender and the environment and examines how they have influenced the practice of development in various geographic contexts. Case studies from Africa, USA, Latin America, and Asia. Topics include gendered access to resources, health and inequality, men and masculinities, the body and the environment, nongovernmental organizations, and grass root organizing.
Geography	556	5	Winter	<b>City and Environment</b>	Examination of historical and present-day environmental impacts of urban and suburban expansion in a North American context.
Geography	557	5	Spring	<b>Environmental Law</b>	No description has been entered for this course.
Geology	571	5	Spring	<b>Advanced Environmental Geography</b>	Covers the conceptual basis for understanding transport and reaction processes that govern change in many environmental systems. Emphasizes processes occurring at the three major environmental interfaces: air and water, water and the adjoining earthen material, and air and soil. Includes chemical and thermal equilibrium, chemical transport, and transport and transfer of energy across the interfaces. 4 lec.
History	506	5	Winter	<b>American Environmental History</b>	A survey of the evolution--from 1565 to the present--of American attitudes toward, and interactions with, the natural world, including such topics as romanticism, the "code of the sportsman," conservation, the "land ethic," and "deep ecology."

History	533	5	Winter	<b>Oil and World Power</b>	Resources, global communications, and grand strategy in historical perspective: focus on the oil industry in relation to warfare, politics, and the world economy with special attention to the Persian Gulf.
Industrial Hygiene	520	4	Spring	<b>Hazardous Material Management and Control</b>	Lectures on gases, vapors, dusts, liquids, and solids and their physical and chemical properties. Emphasis upon evaluation and control methods. Develop controls for specific cases and present them in technical reports.
Journalism	792	1 to 5	Spring	<b>Environmental and Scientific Journalism</b>	Selected topics of current significance. May be repeated with different topics.

Mechanical Engineering	535	3	Winter	<b>Energy Engineering and Management</b>	Basic concepts and objectives of energy management, energy audit, engineering evaluation of several energy systems, availability analysis, second law efficiency, economic evaluation, and application of these principles to case studies.
Mechanical Engineering	589	1 to 6	Spring	<b>Wind Energy</b>	Seminar contents varies
Mechanical Engineering	731	4	Spring	<b>Transport Air Pollution Control</b>	Formation and transport of gaseous and solid pollutants through the atmosphere, dispersion theory using Gaussian models, particle motion in external force field, buoyancy and natural convection, and aerosol mechanics, including terminal settling velocity and particle formation from nucleation, condensation and agglomeration. Control of atmospheric pollutants through application of transport phenomena, including use of electrostatic precipitation, impactors, scrubbers, filtration and inertial separation.
Media Studies	566	5	Spring	<b>Technology, Communication and Culture</b>	Examines the ways in which communication technologies shape and structure a culture and the ways in which a culture, in turn, uses these technologies first to stabilize and second to discover meaning. (sustainability certificate course)
Plant Biology	514	4	Spring	<b>Soil Ecology</b>	This course centers on the overlap of soil science and ecology, in order to explain how soil properties and processes influence plant community composition and function.
Plant Biology	537	4	Spring	<b>Ecosystem Ecology</b>	Analysis of the composition, function, and heterogeneity of ecosystems. Topics include: atmospheric, climate and geological controls on ecosystem function, comparisons of aquatic and terrestrial ecosystems, ecosystem production, nutrient cycling and trophic dynamics. Synthesis with evaluation of human impacts on ecosystems, locally and globally.
Plant Biology	569a	3	Winter	<b>Restoration Ecology</b>	No description has been entered for this course.
Philosophy	591	1 to 5	Winter	<b>Climate Change: SCI, Ethic</b>	No description has been entered for this course.
Political Science	526	5	Spring	<b>Political Contemporary Environmental Movement</b>	Examination of the major segments of the contemporary U.S. environmental movement. Topics include the professionalization, activities, strategies, and criticisms of the mainstream environmental groups; radical environmentalism; grassroots environmentalism and the role of gender; environmental justice and the role of race; and the political implications of this diversity.