

# ISSUES ON POPULATION & THE ENVIRONMENT

Number 2

*University Courses,  
Programs and Activities  
on Population and  
the Environment*



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**Researched and produced by Jacqueline Story Stephenson**

**Edited by Victoria D. Markham**

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**The Center for Environment and Population (CEP)** is a non-profit organization that addresses the relationship between human population, resource consumption, and environmental impacts. The Center works to strengthen the scientific basis of policies and public outreach to achieve a long-term sustainable balance between people and the natural environment around the world. CEP partners with leading organizations to link science to policy and public education efforts, so as to better understand and effectively address the issues. To do this the Center and its organizational partners undertake a series of activities to: compile and assess the current knowledge and emerging trends on the issues; produce expert and research-based materials for policy makers and the public, and; conduct activities to integrate the materials and information directly into policies and public outreach. CEP works in the U.S. and internationally, and is a project of the Tides Center.

The Center has two major program areas: **Emerging Issues in Environment and Population** and **Building New Population-Environment Leadership**. Activities center on producing science-based materials including the “*U.S. National and State Reports on Population and Environment*”, and “*Issues on Population & the Environment*” series, and undertaking directly linked follow-up activities that integrate the materials into policy and public outreach in the U.S. and internationally. The Center utilizes its “CEP Experts Network” to engage leading scientists and other issues-experts in policy and public outreach projects. CEP also works on international population issues, highlighting America's role within the global context.

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## **About This Series**

This document is second in the Center for Environment and Population's (CEP) publication series titled “*Issues on Population & the Environment*”. Its production and distribution is part of CEP's ongoing activities to help audiences, including students, professionals, scientists, the media, policymakers, activists, and the public to better understand and address population's environmental impacts. **Number 1** in the series featured the *Bibliography of Population and Environment Sources*. **Number 3** will feature *Town Hall Meetings and Other Presentations on Population and the Environment*. As part of this, CEP works with its organizational partners, including the American Association for the Advancement of Science (AAAS), the National Wildlife Federation (NWF), the Population Resource Center (PRC), United Nations Population Fund (UNFPA) and others, to organize nationwide events like Town Hall meetings, media briefings, University fellowships, youth and activists' workshops, and “Influentials Meetings” with U.S. and international leaders in policy and advocacy. The “*Issues on Population & the Environment*” series is available in hard copy and online at [www.cepnet.org](http://www.cepnet.org).

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# Introduction

Human population's environmental impact is an important issue facing everyone—on a global scale, at the national scale, and even in our own backyards. Although much material is available on these topics from a scientist's, activist's, or policymaker's perspective, little exists about *where* and *how* information is available at the *university* level. That is, not much has been produced to illuminate how American universities and academic institutes address the issues through their coursework and program offerings.

This document begins to fill that gap. It was prepared by Jackie Stephenson, a 2003 CEP Summer Intern and student at Phillips Exeter Academy in Exeter, New Hampshire. The report highlights some of the coursework and programs available at a range of U.S. colleges and universities. It is designed to be a reference for those who are interested in accessing which U.S. academic institutions cover these topics, and, the scope of those programs. The schools were selected in part on the basis that they stood out as having coursework or programs which explicitly address population-environmental interactions. It is not intended to be exhaustive, but rather to provide the reader with highlights of what is available—a place to start.

This report lists a total of 79 U.S. universities and colleges in alphabetical order. It provides their addresses and other contact details, and summarizes or describes programs or courses relating to how human population factors (such as rates of growth, density, movement, and rates of resource consumption) impact the environment, natural resources, and ecosystems. It covers topics on how human population factors impact land-use, sprawl, forests, water, biodiversity, habitat, wildlife, fisheries, agriculture, energy, climate change and solid waste.

For additional or more detailed information, please contact the schools directly. The information provided herein reflects data available as of Summer, 2003. If you have suggestions for inclusions in later editions of this report, please email them to CEP.

## **1. ANTIOCH NEW ENGLAND GRADUATE SCHOOL**

*Antioch New England Graduate School  
40 Avon Street  
Keene, New Hampshire 03431-3552  
(603) 357-3122*

### **Environmental Studies Masters**

*Department Website: <http://esdept.antiochne.edu/esmdept.html>  
Course Descriptions: <http://courses.antiochne.edu/Pages/es/fall2002>*

#### **Conservation Challenges at the Wildland/Suburban Interface**

Suburban sprawl represents a major conservation challenge throughout the U.S. Not only are natural habitats directly lost through development pressures, but a variety of edge effects and issues of connectivity impact habitat quality in whatever fragments are allowed to remain. Furthermore, elevated human population density increases recreational demands on remaining natural areas, potentially threatening their long-term biological viability. The mixture of habitat protection and species conservation options is often especially complex at the wildland/suburban interface. A five-day field study trip will be taken to Cape Cod and the Islands will address elements of ecology, land-use planning, socioeconomic pressures, and governmental regulatory processes. Field activities will focus on the biology and ecology of local natural communities (emphasizing birds), and meetings with local experts will explore the “nuts-and-bolts” of ongoing conservation efforts. Processes used to identify critical areas for conservation, the role of focal umbrella species in providing legal context, and the importance of restoring broad ecosystem-scale functions such as fire will all be explored.

## **2. ARIZONA STATE UNIVERSITY**

### **Geography Department**

*Department of Geography  
Arizona State University  
P.O. Box 870104  
Tempe, Arizona 85287-0104  
(480) 965-7533*

*Department Website: <http://geography.asu.edu/>*

#### **Urban-Economic Geography**

Research by ASU urban geographers focuses on issues of urban land use, population growth, and landscape development, and pollution and commuter transportation policy, especially in the urban Southwest and U.S.-Mexico border region. Economic geographers at ASU investigate industrial location, foreign direct investment, effects of restructuring on employment, vertical integration in production chains, urban hierarchies, transportation network optimization, and economic-environmental trade-offs.

*Course Website: <http://geography.asu.edu/graduate/gpos.html#Urban>*

## **3. BARNARD UNIVERSITY**

*Barnard College  
3009 Broadway  
404 Altschul Hall  
New York, NY 10027  
(212) 854-5618*

### **Environmental Science**

*Department Website: <http://www.barnard.edu/envsci/>*

#### **Agricultural and Urban Land Use**

Humans have transformed their terrestrial environment since Paleolithic times and continue to do so in profound ways. This course focuses on the major physical and biological processes involved in human-environment interactions, and the concepts that humans use to understand their relationship to nature. The intertwined effects of population growth, economic development, and technological “progress” are explored in two contrasting settings: the country and the city. In the rural setting, we study how the first (and following) farmers manipulated plants, animals, soil, and water; whether the Europeans encountered the “forest primeval” in the “New World,” and the transformations of forest and field in New England. In the urban setting, we analyze land use, resource-use efficiency, ecological footprint, effects of cities on regional climate, and manipulation of water resources and wetlands. Drawing from past and present examples of human use and abuse of the environment, we will seek to define our own guidelines for practical sustainable development, linking rural and urban environments.

*Course page: [https://courseworks.columbia.edu/cms/outview/courseenter.cfm?no=EESCX3032\\_001\\_2003](https://courseworks.columbia.edu/cms/outview/courseenter.cfm?no=EESCX3032_001_2003)*

### **School of International and Public Affairs**

*Department Website: <http://www.sipa.columbia.edu/>*

#### **Environmental Science for Policymakers**

An analysis of three areas that will present important problems in the next century: water resources, climatic change, and energy resources. The fourth credit point is optional, and involves an additional one-hour recitation providing in-depth, quantitative examination of some natural environmental processes related to general topics of water, energy, population, or climate. This recitation is intended for SIPA students seeking more quantitative approaches to analysis of natural systems.

*Course Website: <http://rainbow.ldeo.columbia.edu/ees/SIPA/Index.html>*

#### **4. BATES COLLEGE**

102 Hathorn Hall, Bates College  
Lewiston, Maine, 04240  
(207) 786-6289

##### **Environmental Studies**

Department Website: <http://abacus.bates.edu/acad/depts/environ/>

Course Descriptions: <http://www.bates.edu/ENVR-courses.xml>

##### **Marine Resource Policy And Management In The Twenty-first Century**

The coasts and oceans are “the last frontier” of natural resource and public lands policy-making. As our technological abilities, population, and desire to use coastal and ocean resources have expanded exponentially in the last century, our management policies have lagged behind, rooted in an open access commons theory. This course examines the resulting, complex tension in the Gulf of Maine and around the world as scientists, managers, fishermen, conservationists, and many other stakeholders grapple with increasingly complicated issues of science, socioeconomics, and regulations, and we shift among open access, public lands, and private ownership management schemes.

##### **Ethics and Environmental Issues**

A study of selected issues in environmental ethics, including questions about population growth, resource consumption, pollution, the responsibilities of corporations, environmental justice, animal rights, biodiversity, and moral concern for the natural world. The course explores debates currently taking place among environmental thinkers regarding our moral obligations to other persons, to future generations, to other animals, and to ecosystems and the earth itself.

#### **5. BIRMINGHAM SOUTHERN UNIVERSITY**

900 Arkadelphia Road  
Birmingham, AL 35254  
(800) 523-5793

##### **Environmental Studies**

Department Website: [http://www.bsc.edu/academics/cooperative/env\\_studies/](http://www.bsc.edu/academics/cooperative/env_studies/)

Course Descriptions: [http://www.bsc.edu/academics/cooperative/env\\_studies/descriptions.htm#ES150](http://www.bsc.edu/academics/cooperative/env_studies/descriptions.htm#ES150)

##### **Introduction to Environmental Studies**

An interdisciplinary introduction to the complexities of environmental problems. The course provides an overview of scientific knowledge on ecology and environmental management and examines political, economic, and ethical issues involved in the attainment of a sustainable future. The course explores how an understanding of the natural and social sciences is necessary to address and solve environmental problems. Selected topics, including population growth, food shortages, pollution containment, and energy resources, are addressed.

##### **Conservation Biology**

A study of the population and ecosystem level processes required to understand and conserve biodiversity. Emphasis is placed upon the genetics and demographics of populations, the implications of species interactions and community influences on conservation, and management and sustainable development case studies.

## **6. BOSTON UNIVERSITY**

### **Center for Energy and Environmental Studies**

*Boston University Center for Energy and Environmental Studies  
675 Commonwealth Avenue, Rm. 141  
Boston, MA 02215  
(617) 353-3083*

*Department Website: <http://www.bu.edu/cees/>*

*Course Descriptions: <http://www.bu.edu/cees/academics/offer.html>*

#### **Human Ecology of Modern Africa**

Four themes of twentieth-century change are explored: demographic growth, the redistribution of population through migration and urbanization, the intensification of resource use, and disasters and recoveries. Classic theories of the processes are related to African data.

#### **Introduction to Quantitative Environmental Modeling**

Introduces students to quantitative models of environmental systems. Emphasizes application of quantitative models to environmental problem solving. Includes computer exercises with examples from current environmental issues such as population growth, pollution transport, and biodiversity.

#### **Alternative Energy and Environmental Futures**

The future projection of changes in the environment and energy supply technologies. Focuses on the possibilities and limitations of technological solutions to future resource and environmental problems. Emphasis is given to the relationship among population growth, energy supply activities, and the environment.

## **7. CALIFORNIA STATE UNIVERSITY – FRESNO**

### **Department of Earth and Environmental Sciences**

*Department of Earth & Environmental Sciences  
California State University, Fresno  
2345 East San Ramon Avenue M/S MH24  
Fresno, California 93740  
(559) 278-3086*

*Department Website: <http://www.csufresno.edu/geology/>*

#### **Environmental Science**

Introduction to environmental science, focusing on environmental principles and processes. Topics include global systems and change, resource management and conservation, energy and mineral resources, population dynamics, ecosystems and biodiversity, environmental degradation and pollution, and environmental economics and ethics.

## **8. CARLETON COLLEGE**

*One North College Street  
Northfield, MN 55057  
(507) 646-4884*

### **Sociology and Anthropology Department**

*Department Website: <http://www.carleton.edu/curricular/SOAN/>*

*Course Descriptions: <http://www.carleton.edu/curricular/SOAN/classes/SOAN130/S98/index.htm>*

#### **Population and Food in the Global System**

This course focuses on issues of growth, hunger, and world food supply. Topics to be considered include: dynamics of population growth and demographic change; food production systems and sustainable development in the Third World; socio-political and ecological causes of famine; and patterns of world food distribution. Special attention will be given to policies aimed at controlling population and increasing food production, and why they succeed or fail.

## **Biology Department**

*Department Website: <http://www.acad.carleton.edu/curricular/BIOL/index.html>*

*Course Descriptions: <http://www.acad.carleton.edu/curricular/BIOL/classes/bio190/index3.html>*

### **Global Change Biology**

A broad survey of human impacts on the biosphere and climate, including policy development to mitigate such change. Human-caused global changes are examined within the context of natural changes throughout Earth history. Topics include human population growth, climate change and global warming, use change and urban sprawl, sustainability, vegetation responses to changing climate, effects of rising CO<sub>2</sub> on ecosystems, pollution effects on the atmosphere and ecosystems, extinction and the loss of biodiversity, invasive species, history of environmental protection in the U.S., tropical deforestation, and ecological footprinting.

## **9. COLLEGE OF WILLIAM AND MARY**

### **Environmental Science and Policy Cluster**

*Environmental Science and Policy Cluster Corner House  
(757) 221-5075*

*Course Descriptions: <http://www.wm.edu/catalog/2002-03/environmentalstudies.htm>*

### **Environmental Science and Policy II: Population, Biodiversity, and Pollution**

This team-taught interdisciplinary course brings together perspectives and approaches to environmental problems from natural sciences, social sciences, and humanities. General lectures, discussion groups, field, laboratory and computer experiences examine human population, tropical ecosystems and biodiversity, and toxic contamination, and environmental justice.

## **10. COLUMBIA UNIVERSITY**

### **Environmental Policy Studies**

#### ***Environmental Policy Studies***

*616 Uris Hall, Columbia Business School  
New York NY 10027  
(212) 854-6459*

*Department Website: <http://www.columbia.edu/cu/sipa/FUNC/EPS/>*

*Course Descriptions: [http://www.columbia.edu/cu/sipa/FUNC/EPS/eps\\_cur.html](http://www.columbia.edu/cu/sipa/FUNC/EPS/eps_cur.html)*

### **Environmental Science for Decision Makers**

Analyzes three areas that will present important problems in the 21st century: water resources, climatic change, and energy resources. The fourth point is optional and is intended for students seeking more quantitative approaches to analysis of natural systems. It involves an additional one-hour recitation providing in-depth, quantitative examination of some natural environmental processes related to general topics of water, energy, population, or climate.

### **Biosphere 2 Center**

#### ***Columbia University's Biosphere 2 Center***

*32540 S. Biosphere Road  
Oracle, AZ USA 85623  
(520) 838-6100*

*Center Website: <http://www.bio2.columbia.edu/education/partners.htm>*

The Biosphere 2 Center in Oracle, Arizona, is the site of an initiative in integrating education, learning and research which addresses one of humankind's most pressing issues: how to advance human prosperity more harmoniously with nature. Columbia University is transforming the \$150 million Biosphere 2 facility into a laboratory that explores new approaches to education and learning as well as serving as prototype for large-scale experimental studies of processes essential for a healthy Earth.

## **11. CONNECTICUT COLLEGE**

270 Mohegan Avenue  
New London, CT 06320-4196  
(860) 447-1911

### **Environmental Studies**

Department Website: <http://www.conncoll.edu/academics/departments/envstudies/index.html>

Course Descriptions: <http://aspen.conncoll.edu/camelweb/index.cfm?fuseaction=registrar&circuit=cc&function=course&action=environmental>

#### **Human Population Growth**

The impact of rapid human population growth on the environment and social stability. Emphasis on historic trends in population growth, the recent decline in birth rates in many parts of the world, changes in agricultural productivity, the implications of rapid urbanization, and the effect of increasing human populations on natural environments and biological diversity.

#### **The Impact of the World's Population on the Atmosphere**

Focus on topical issues which describe the impact of the world's population on our biosphere. Topics include: photochemical smog, greenhouse gases, radiation transfer, meteorology.

#### **Mathematical Modeling in Ecosystems**

Dynamic simulation modeling of ecological processes. The role of models in science, the relationship of models to scientific theories, and methods for testing the performance of models against the real world. Survey of important models in ecology with a focus on the application of the simple concept of mass balance to simulate population, community and biogeochemical processes.

## **12. CREIGHTON COLLEGE OF ARTS AND SCIENCES**

2500 California Plaza  
Omaha, NE 68178  
(402) 280-2700

### **Environmental Science**

Course Descriptions: [http://www.creighton.edu/Registrar/Bulletin/UG\\_03/ArtsandSciences.htm](http://www.creighton.edu/Registrar/Bulletin/UG_03/ArtsandSciences.htm)

#### **Demography: World Population Issues**

This course will provide a sociological examination of the development and evolution of different models of population dynamics from several contemporary cultures. It will place particular emphasis on the assumptions and logical consequences of each of these models. Includes a survey of historical and contemporary trends in population growth, as well as a review of competing perspectives about natural limits to that growth.

#### **Environmental Science**

Course presents a balanced, scientific approach to the study of the environment and stresses the application of ecological concepts within a systems perspective. Topics include ecological concepts, population principles, endangered species and habitats, resources, air and water pollution, environmental health, and global perspectives.

## **13. DICKINSON COLLEGE**

PO Box 1773  
Carlisle, PA 17013  
(717) 243-5121

Department Website: <http://www.dickinson.edu/departments/envst/>

An integrated, interdisciplinary study of natural environmental systems and human's impact on them. Basic concepts of ecology and energy will be examined and utilized to study world resources, human population dynamics, pollution, and pollution control. Field study will be emphasized.

## **14. DRURY UNIVERSITY**

900 North Benton Avenue  
Springfield, MO 65802  
(800) 922-2274

### **Environmental Studies**

Department Website: <http://www.drury.edu/section/section.cfm?sid=131>

Course Descriptions: <http://www.drury.edu/multinl/story.cfm?ID=1221&NLID=131>

#### **Environmental Economics**

This interdisciplinary course involves the use of economic principles and various ethical perspectives to analyze contemporary environmental issues. The impacts of population growth and economic growth on natural resource depletion and various types of environmental pollution are explored and alternative environmental policies are compared.

## **15. DUKE UNIVERSITY**

### **Environmental Sciences and Policy - Undergraduate Program**

Division of Environmental Sciences and Policy  
Nicholas School of the Environment and Earth Sciences  
Box 90328, Duke University  
Durham, North Carolina 27708  
(919) 613-8009

Department Website: <http://www.env.duke.edu/esp/>

Course Descriptions: <http://www.env.duke.edu/en/degree/courses.htm>

#### **Environmental Science and Policy of the Tropics**

Investigates major environmental issues facing tropical nations using concepts from the natural and physical sciences, the social sciences, and resource management. Topics include: climatic and biogeographical patterns, trends in human population size and demography, historical and contemporary issues in resource use and conservation, and sociological and ethical concerns regarding the source and distribution of economic wealth. (Given at Costa Rica)

#### **Population and the Environment**

This special topics course will utilize readings and class discussion to focus on the following issues: 1) The historical debate regarding the link between population increase and resource depletion and environmental degradation, 2) recent evidence and argument on the important role of technology in mediating effects of population size on resource depletion or environmental degradation, and 3) general arguments and case studies illustrating the unanticipated consequences of interventions to control population growth, limit resource depletion or reduce environmental degradation.

## **16. DUQUESNE UNIVERSITY**

### **Bayer School of Natural and Environmental Sciences: Center for Environmental Research and Education**

331 Fisher Hall  
Pittsburgh, PA 15282  
(412) 396-4749

Department Website: <http://www.science.duq.edu/esm/index.html>

#### **Introduction to Environmental Science**

The course provides students with an appreciation and understanding of the fundamental and theoretical background and concepts in environmental science. The impact of population growth on ecosystems, fossil and nuclear energy, resources and resource management, and population and risk assessment are among the topics to be discussed. The course will also deal with such issues as global warming, deforestation, biodiversity, and ozone depletion.

Course Website: [http://www.science.duq.edu/esm/Course\\_Material/ESM551/Index551.HTML](http://www.science.duq.edu/esm/Course_Material/ESM551/Index551.HTML)

## **17. EVERGREEN STATE COLLEGE**

*The Evergreen State College  
2700 Evergreen Parkway  
NW, Olympia, WA 98505  
(360) 867-6000*

### **Master of Environmental Studies Program**

*Department Website: <http://www.evergreen.edu/mes/home.htm>*

#### **Population, Energy and Resources**

Students study contemporary population trends, energy and material resource needs, and their availability on regional, national and global scales. Emphasis will be on how population and resource demands affect the environment and on the concept of environmental sustainability. As part of this program, students write and present a research paper.

*Course Website: <http://www.evergreen.edu/library/govdocs/workshops/MES%20PER%20Syllabus%202003>*

## **18. FRANKLIN AND MARSHALL**

*Franklin & Marshall College  
PO Box 3003  
Lancaster, PA 17604-3003  
(717) 291-3911*

### **Environmental Studies**

*Department Website: <http://www.fandm.edu/departments/EnvironmentalStudies/>*

*Course Descriptions: <http://www.fandm.edu/departments/EnvironmentalStudies/courses.html>*

#### **Environmental Studies**

This course introduces students to the fundamental literature relevant to issues of growth (e.g., population, economic, and urban), to notions of progress and development, and to human relations with nature and “wilderness”.

#### **The Environment and Human Values**

Study of historical and modern attitudes toward nature; human use of nature’s resources; the effects of the growth of science and technology on human uses of and attitudes toward the environment; and modern humans’ ability to substantially alter the environment (e.g., by altering global temperature). Key concepts addressed include the nature of human population growth, the notion of “limits to growth,” and the difficulty of managing the use of common pool resources.

## **19. GREENWICH UNIVERSITY**

*P. O. Box 1797  
Hilo, Hawaii 96721  
(800) 367-4456*

### **College of Science and Technology**

#### **Environmental Science: MS + PhD**

*Department Website: <http://www.greenwich.edu/sat/ls/ensms.htm>*

*Course Descriptions: <http://www.greenwich.edu/sat/ls/ensms-description.htm>*

Many of the world’s environmental researchers believe that the present generation of humanity stands at an environmental crossroad. The industrial and post-industrial ages have significantly increased stresses on local, regional, and even global environmental systems. Only recently has science begun to understand the ecological impacts associated with unsustainable resource harvesting, human population sprawl, and a plethora of toxic pollutants arising from anthropogenic sources. Issues of acid deposition, the loss of valuable and irreplaceable habitat, ozone depletion, contamination of potable water, desertification, and the accumulation of

greenhouse gases in our atmosphere are just a few of the serious and potentially catastrophic problems that have been identified in the past few decades. The question that remains is what path will humanity take at this crucial crossroad?

### **Environmental Science: Coastal Environmental Management**

The United Nations, by declaring 1998 to be the International Year of the Ocean, recognized the importance of the oceans and the marine environment. The overall objective of this declaration was to focus government and public attention on the need for sustainable development of this finite resource. With pollution, population growth, excessive fishing, coastal zone degradation, and climate variability placing increasing pressure on our oceans, it is now time for action to ensure the continued viability of our marine resources. Basic and applied scientific studies that can promote and support effective management are essential and urgent if we are to prevent the collapse of the world's living marine resources.

## **20. GUILFORD COLLEGE**

5800 West Friendly Ave.  
Greensboro, NC 27410  
(336) 316-2301

### **Environmental Studies**

Department Website: <http://www.guilford.edu/original/academic/envst/>

#### **Introduction to Environmental Studies**

This course will offer an interdisciplinary introduction to environmental issues, problems, and problem solving. We will include perspectives on humanity and the environment from many different fields, including history, biology, geology, political science, psychology, philosophy, sociology, and economics through a variety of readings and guest lecturers. In following a land-use theme, this course will address issues from global problems such as ozone loss, climate change, and population growth to local issues such as the Federal Express controversy in Greensboro, Greensboro's landfills and recycling program, and Guilford's own ecological footprint.

The first part of the course will introduce fundamental concepts of environmental studies and provide an historical context of environmental issues. The state of scientific knowledge about environmental problems confronting us and the role of this knowledge will be addressed. Questions of ethics and values in decision-making will be explored as well as community problem solving and conflict mediation. Local environmental issue/controversies serve as case studies for learning about environmental science, policy analysis, and decision-making. The course culminates with a set of student-designed group projects focusing on the ecological footprint of life at Guilford.

Course page: <http://www.guilford.edu/original/academic/envst/envs101syl.htm>

## **21. GUSTAVUS ADOLPHUS COLLEGE**

St. Peter, MN  
(507) 933-8000

### **Environmental Studies: Culture and Environment**

Division Website: <http://www.gustavus.edu/oncampus/academics/env-studies/Pages/Curriculum/Departments/Culture.html>

#### **Population Problems**

The study of world population problems. Attention is given to the fundamentals of population study with emphasis on population process and problems.

## **Environmental Studies: Economics**

*Division Website: <http://www.gustavus.edu/oncampus/academics/env-studies/Pages/Curriculum/Departments/Economics.html>*

### **Economic Development and World Resources**

This course is a study of the factors influencing the economic modernization of less developed countries, including cultural, human, and natural factors involved in the appearance and disappearance of economic resources. Topics include economic growth and development, poverty and income distribution, food problems, population growth, environment and development, sustainable development, capital formation, investment allocation, structural transformation, planning, markets, the role of the state, privatization, third world debt, development planning, macroeconomic stabilization policies, and the international economics of development. The effect of economic advancement on the rates of resource utilization and its implications for less-developed countries, more-developed countries, and world resources will be examined.

## **22. HARVARD UNIVERSITY**

### **Environmental Science and Public Policy**

*MCZ Labs*

*26 Oxford Street*

*Cambridge, MA 02138*

*(617) 495-2330*

*Department Website: <http://www.espp.fas.harvard.edu/>*

### **Global Change and Human Health**

Global consequences of increasing human population and our consumption of natural resources include extensive changes in many natural ecosystems and in the composition of Earth's atmosphere. In the last decade, geographic ranges of certain well known infectious diseases have expanded and new diseases have become threats to human health. This seminar will explore hypothesized linkages between changes in ecosystems, climate, and the epidemiology of certain infectious diseases.

*Course page: <http://www.espp.fas.harvard.edu/courses/elective/4434.html>*

### **Population and the Human Condition**

How does the human population—its size, growth rate, age composition, and geographic distribution—influence problems of resources, environment, and development and the prospects for solving them? How many people can the world support? Population variables interact with economic and technological ones in generating pressures on resources and environment, and all these variables and their interactions are shaped by social and political as well as economic forces. This seminar explores what is known, supposed, and (diversely) contended about the relation between population and the human condition—past and future—bringing to bear historical data, scenarios of future possibilities, and a variety of disciplinary and interdisciplinary perspectives.

*Course page: <http://www.courses.fas.harvard.edu/~espp90i/>*

In addition, Harvard University offers several programs in the population-environment field. Harvard's Center for Population and Development Studies advocates a cross-disciplinary approach to the study and research of population issues. The Center offers selections relating to environmental studies, including fellowship programs and publications. The center offers the David E. Bell Fellowship in the field of population and development. This fellowship is geared towards those in public and non-government organizations. These men and women study at the Center for Population and Development studies, and are able to pursue interests in the population-environment field. The Center for Population and Development has also produced publications relevant to the study of population and environment. Such publications include:

Volume 13 Number 2 "Overpopulation as a "Disease": The Khanna Study and its Intersection with Shifts in Epidemiology and International Medicine"

Volume 11 Number 7 “Officializing Clandestine Practices of Environmental Degradation in the Tropics

Volume 10 Number 6 “Gender Equity and Environmental Health”

No.99.09 “Deciding Whom to Help: Resource Prioritization, Population, Health Measures, and Disability”

No.98.05 “What if It’s a World Population Implosion?: Speculations About Global De-Population

No.90.02 “Population and Environment in the Current Development Scenario”

No.92.01 “The Internationalization of the Narmada Dam: Do Western Environmental Groups Have a Role in Third World Ecology Movements?”

These publications and working papers can be accessed at <http://www.hsph.harvard.edu/hcpds/workingpapers.html>.

Harvard also offers population-environment publications in its **Center for Health and the Global Environment**. The Center offers a section titled “Population Growth” in its quarterly review, which can be accessed from <http://www.med.harvard.edu/chge/intro11.html>. The Center also provides the section “Policy-maker Education,” geared towards helping the community to understand the human-environment relationship. Policy-maker Education offers articles such as “‘Bushmeat’ and the Origin of HIV/AIDS: A Case Study of Biodiversity, Population Pressures, and Human Health.

### **23. JOHNS HOPKINS UNIVERSITY**

*The Johns Hopkins University*

*3400 N. Charles St.*

*Baltimore MD 21218*

*(410) 516-8171*

Johns Hopkins Bloomberg School of Public Health works closely with the population-environmental studies. The School’s Population and Family Health Sciences Department is interdisciplinary, studying such subjects as demography, health services research and sociology. Also in the School of Public Health is Johns Hopkins Health Policy and Management department. This department is multidisciplinary, studying the health and growth of the human population. The Center for a Livable Future, also located within the Bloomberg School of Public Health, offers an in depth view of the population-environment issues. The Center for a Livable Future is receiving such grants as “Increasing Food Security for the Inner-City Population in Baltimore: Formative Research for Food Store-Based Environmental Interventions,” “Genetically Modified Soybean and Corn: Impact on Human Environment,” and “A Third Way: Developing Culturally-Based Solutions to the Environmental and Health Consequences of Central Africa Forest.” The Center also offers lecture series and conferences, including “An Integrated Approach For Solving Environmental, Health, Population and Development Problems: Successful Examples from the Field,” which closely examine the study of population-environment relations. More information regarding the Bloomberg School of Public Health can be found at <http://www.jhsph.edu/index.html>.

### **24. JUNIATA COLLEGE**

*Juniata College*

*1700 Moore Street*

*Huntingdon, PA 16652*

*(814) 641-3000*

#### **Environmental Science and Studies**

*Department Website: <http://departments.juniata.edu/environmental/index.html>*

*Course Descriptions: <http://departments.juniata.edu/environmental/html/courses.html>*

#### **Introduction to Environmental Science and Studies**

Explores the environment from a systems view. Students learn scientific processes (such as models of population growth and carrying capacity) along with the major social, cultural, political and economic processes that connect to environmental systems. The ecosystem is used as the model of design for best-practices.

## **25. MARIST COLLEGE**

3399 North Road  
Poughkeepsie, NY 12601  
(845) 575-3000

### **Environmental Science**

*Chair of Environmental Science & Policy*  
(845) 575-3000, ext. 2335

*Department Website: <http://www.marist.edu/science/environmental/>*

*Course Descriptions: <http://www.marist.edu/science/environmental/bioprog.html>*

#### **Introduction to Environmental Issues**

An introductory course investigating three major areas: natural systems, man's adverse impacts on these systems, and how man deals with these impacts. The course includes a detailed exploration of such issues as human population dynamics and control, food resources and world hunger, land use, non-renewable resources, water and energy resources, and waterborne and airborne pollutants. The course culminates in a study of the politics, economics, and ethics of environmental control.

## **26. MARYVILLE COLLEGE**

Maryville, TN  
(800) 597-2687

### **Environmental Studies**

*Department Website: <http://www.maryvillecollege.edu/academics/catalog/degrees/degree.asp?did=20>*

The major in Environmental Studies is an interdisciplinary program involving course work in the social and natural sciences. The major provides an excellent background for work in areas such as global, national and local resource management; international and national population control and wildlife management; international banking and finance; public policy roles at all levels in city planning, waste management, and related areas in: health care, journalism, law, advertising and education. Environmentally related careers are available as writers, editors, managers, lawyers, and public relations experts.

A study of the interrelationships between human population, organization, technology, and the environment. The environment includes both the natural environment, living and nonliving, and human-created environments, such as urban communities. The perspectives of demography human ecology, and environmental sociology are the analytical tools. Input problems such as availability of energy, food, and depletion of other resources, and output problems such as air, water, and land pollution, waste disposal, and overpopulation are examined.

## **27. MIDDLEBURY COLLEGE**

Middlebury, Vermont 05753  
(802) 443-5000

### **Environmental Studies**

*Department Website: <http://www.middlebury.edu/depts/es/>*

*Course Descriptions: <http://cat.middlebury.edu/~publish/catalog/environstudies.html>*

#### **Environmental Studies**

The core course provides an introduction to the perspectives on environmental issues of the humanities, natural sciences, and social sciences, as well as basic approaches critical to understanding human interactions with the environment. All of these core courses must be completed by the end of the junior year.

## **Natural Science and the Environment**

We will explore in detail a series of current environmental issues in order to learn how knowledge of principles of biology, chemistry, geology, and physics helps us to identify and understand environmental problems and to shape policies for effective solutions. Topics covered will emphasize transnational environmental issues, including global warming, ozone, species extinction, human population growth, and world food production.

## **Global Climate Change**

In 1995 the U.N.-sponsored Intergovernmental Panel on Climate Change cautiously suggested “a discernable human influence on climate.” By its 2001 report, the IPCC boldly declared that “most of the warming observed over the last 50 years is attributable to human activities.” Why do human activities affect climate? What climatic changes can we expect, and what will be their impacts? The answers to these questions lie, fundamentally, in the basic physical processes that govern the flows of energy to and from Earth and its atmosphere, the changing composition of the atmosphere, and the cycling of material substances among Earth, atmosphere, and oceans. This course explores these processes and their implications for human-induced climate change, giving students a solid grounding in the latest understandings of climate science. Students will work with real climatic data and will develop simple climate models capable of exploring future climate scenarios.

## **28. MOREHOUSE**

830 Westview Drive  
S.W. Atlanta, GA 30314  
(404) 681-2800

### **Environmental Studies Program**

Department Website: <http://www.morehouse.edu/academics/scimat/environmentalstudies/index.html>

The purpose of the Environmental Studies minor is to provide students with an understanding of the multidimensional nature of environmental problems. This academic minor will present students, who may major in any academic subject, with the opportunity to gain knowledge of and sensitivity to the scientific, social, political, economic, and cultural aspects of the human-environment interaction. We will pay attention to the human-environment interactions that particularly impact African-American communities. The scale of human-environment interactions range from local community to the national and international scale. For this reason, the Environmental Studies minor includes community service activities, involving students and faculty, and significant attention to international affairs. The ultimate purpose of this curriculum is to foster understanding of the causes for current environmental problems (including our personal roles in causing these problems), and to empower students to change their own behavior and take leadership roles in addressing environmental issues.

## **29. MOUNT HOLYOKE**

50 College Street  
South Hadley, Massachusetts 01075  
(413) 538-2000

### **Geography**

Department Website: <http://www.mtholyoke.edu/acad/earth/intro/index.shtml>

The geography major is intended to provide students with an understanding of the world around them. Central to the discipline is the study of interactions of human and environmental systems. Specific topics emphasized in the curriculum include the physical environment, population dynamics, political geography, socioeconomic development, and spatial data analysis. The major includes technique courses in geographic data analysis: quantitative methods, computer mapping, satellite image analysis, and geographic information systems.

## **Environmental Studies**

*Department Website: <http://www.mtholyoke.edu/acad/earth/>*

The study of environmental problems is inherently interdisciplinary. One cannot understand their origin, impact, or potential solutions without analyzing the behavior of natural systems, as well as economic, political, and cultural factors. Environmental studies provides students with an appreciation of the interdisciplinary nature of environmental issues and includes courses from the humanities, natural sciences, and social sciences. Environmental studies is concerned with the interactions between people and their environment, the impacts people have on the environment, and the effects the environment has on people.

## **30. WESLEYAN COLLEGE**

*106 Central Street  
Wellesley, MA 02481  
(781) 283-1000*

*Department Website: [http://www.wellesley.edu/Biology/Major/envisci/envisci\\_reqs2.html](http://www.wellesley.edu/Biology/Major/envisci/envisci_reqs2.html)*

North Carolina Wesleyan's program in environmental science prepares students for employment in a variety of municipal, industrial, research, and public policy positions. A steady growth in population and increasing concerns for deteriorating natural resources and public health resulting from this growth are creating high demand for environmental science professionals. Our graduates include research toxicologists, hydrologists, a variety of environmental health officers, and private consultants. Core to our program is an internship requirement that exposes our students to community health issues, analytic technique and instrumentation, field experience, and public policy regulation.

## **31. NORTHERN ARIZONA UNIVERSITY**

*S. San Francisco St.  
Flagstaff, Arizona 86011  
(888) 667-3628*

### **Center for Environmental Sciences and Education**

*Center Website: <http://www.nau.edu/%7Eenvsci/>*

*Course Descriptions: [http://www.nau.edu/~envsci/undergrad\\_courses.htm](http://www.nau.edu/~envsci/undergrad_courses.htm)*

#### **Foundations of Environmental Science**

Humans and the Environment introduces scientific methods of investigating and solving environmental problems. Interdisciplinary analysis of interactions among living and nonliving environmental components, focusing on human interactions. Lab emphasizes experimental design and presentation.

*Course page: <http://www.envsci.nau.edu/env230/>*

#### **Global Environmental and Climate Change**

Characteristics of the global climate system, estimating past and predicting future impacts of human activities on climate and environmental systems, and policy implications.

### **32. PENN STATE ALTOONA**

3000 Ivyside Park  
Altoona, PA 16601-3760  
(814) 949-5000

#### **Environmental Studies**

*Department Website: <http://www.aa.psu.edu/envstu/>*

##### **Understand Our World**

As human population expands, our impact on the natural world increases. An understanding of the intricate relationship between humans and the natural environment is imperative for achieving a balance between resource use and conservation. The intellectual tradition of environmental studies brings students into contact with thinkers such as Charles Darwin, Henry David Thoreau, John Muir, Aldo Leopold, and Rachel Carson.

### **33. PIEDMONT COLLEGE**

Demorest, GA  
(800) 277-7020  
(706) 778-3000

#### **Environmental Science**

*Department Website: <http://www.piedmont.edu/catalog/envs.html>*

Environmental science deals with the interaction of humans and the natural environment and seeks to identify the problems resulting from such interactions as well as potential solutions. It is interdisciplinary by nature and involves expertise in biology, chemistry, toxicology, and related scientific fields as well as ethics, economics, and other social science disciplines. Because of the growth of human populations worldwide and an increasing global awareness of the importance of the environment, this is one of the most rapidly growing academic fields. Similarly, career opportunities in the environmental field and opportunities for graduate studies are becoming increasingly abundant. The major is specifically designed to prepare students for these opportunities.

### **34. PLYMOUTH STATE COLLEGE**

17 High Street  
Plymouth, NH 03264  
(800) 842-6900

#### **Social Science Department: Environmental Planning Program**

##### **Population Dynamics**

An introduction to population trends, the factors that influence those trends and the methods for gathering and applying population data. Students will learn to obtain, aggregate and apply population data in problem solving situations.

*Course page: [http://www.plymouth.edu/thirdtier/course.phtml?department\\_code=SS&course\\_num=GE3330](http://www.plymouth.edu/thirdtier/course.phtml?department_code=SS&course_num=GE3330)*

### **35. PORTLAND STATE UNIVERSITY**

*Post Office Box 751  
Portland, Oregon 97207  
(503) 725-3000*

#### **Environmental Sciences and Resources**

*Phone: (503) 725-4980*

*Department Website: <http://www.esr.pdx.edu/>*

*Course Descriptions: <http://www.esr.pdx.edu/ESR/degrees/esr-courses.htm>*

#### **Understanding the Environment**

Study of the scientific and ecological principles that govern human interactions with the physical and biological systems of the earth, with emphasis on the role of energy. Topics will include ecosystem properties, earth system properties, human population dynamics, and the roles of technological and ethical decisions.

### **36. PRINCETON UNIVERSITY**

*Princeton, New Jersey 08544  
(609) 258-3000*

#### **Princeton Environmental Institute: Environmental Studies**

*Guyot Hall*

*Princeton University*

*Princeton, NJ 08544*

*(609) 258-5985*

*Course Descriptions: <http://web.princeton.edu/sites/PEI/undergradprepadmiss.htm>*

#### **Fundamentals of Environmental Studies: Population, Land Use, Water, and Energy**

This course will focus on environmental consequences associated with human population growth, land use and agricultural practices, water resources exploitation and pollution, and energy production and utilization. Underlying principles will be explored for each topic, with examples and case studies used to highlight interconnections between the scientific, technological, political, economic, and social dimensions of environmental problems.

#### **Fundamentals of Environmental Studies: Climate, Toxics, Air Pollution, and Biodiversity**

The course will focus on the environmental consequences of human activities and their interactions with natural systems on global scales, focusing on four main areas of current environmental concern: climate and global change, the atmosphere and air pollution; toxics in the environment; biodiversity and extinction resulting from climate change and anthropogenic activities. Underlying principles will be explored for each topic, with examples and case studies used to highlight interconnections between the scientific, technological, political, economic, and social dimensions of environmental issues. 202a: two lectures, one preceptorial.

#### **Environmental Engineering and Water Resources**

Industrial development and population growth will continue to put strains on environmental systems and on vital natural resources, including water resources. Engineers and scientists trained in hydrology, water and soil chemistry, atmospheric sciences, and biological sciences are needed to address critical environmental issues that involve interconnections between the earth's water, energy, and biogeochemical cycles, as well as connections between these cycles and human activities. The Environmental Engineering and Water Resources Program provides students the opportunity to study a broad range of topics related to environmental problems, and to pursue advanced research in specific areas of interest, with a focus on the application of modern quantitative techniques to practical problems in environmental engineering.

## **PRINCETON OFFICE OF POPULATION RESEARCH**

*Office of Population Research,  
Princeton University,  
Wallace Hall, Princeton NJ 08544  
(609) 258-4870  
Email: [webmaster@opr.princeton.edu](mailto:webmaster@opr.princeton.edu)  
Website: <http://opr.princeton.edu/>*

The Office of Population Research at Princeton University (OPR) is a leading demographic research and training center. The office has a distinguished history of contributions in formal demography and the study of fertility change. In recent years there has been increasing research activity in the areas of health and wellbeing, social demography, and migration and urbanization.

### **37. REGIS UNIVERSITY**

*3333 Regis Boulevard  
Denver, CO 80221-1099  
(303) 458-4100*

#### **Environmental Studies - Undergraduate Programs**

*Course Descriptions: <http://web.princeton.edu/sites/PEI/undergradprepanadmiss.htm>*

##### **Human Ecology**

Explores the earliest forms of mankind, examining the interactions between human beings and their environments from the perspectives of evolutionary and ecological development. Studies current problems such as those associated with high population densities, modern technology, pollution, conservation and resource issues.

### **38. RICHARD STOCKTON COLLEGE OF NEW JERSEY**

*PO Box 195  
Pomona, NJ 08240  
(609) 652-1776*

#### **Environmental Studies**

*Department Website: <http://aden.stockton.edu/cgi-bin/ug-program-list?program=ENVL>*

*Course Descriptions: <http://aden.stockton.edu/cgi-bin/ug-course-list?program=ENVL>*

##### **Pollution: Systems and Solutions**

This course examines cross-media pollution issues and their solutions. Topics discussed include global environmental pollution issues, consequences of population growth, risk assessment, toxic substances and environmental disease, pesticides, water, soil and air quality, solid and hazardous waste, radiation and noise pollution. The field work component includes environmental monitoring and laboratory analysis of selected contaminants.

##### **Demographic Analysis**

Examination of characteristics of human populations from multiple perspectives. Course focuses on size, growth, density, and distribution of populations for business-economic, geographical, political, and social analysis.

### **39. ROLLINS COLLEGE**

1000 Holt Ave.  
Winter Park, FL 32789  
(407) 646-2000

#### **Environmental Studies**

*Department Website:* <http://www.rollins.edu/envstudies/>

*Course Descriptions:* <http://www.rollins.edu/envstudies/descriptions.html>

##### **Environmental Studies**

Discusses contemporary global environmental issues and case studies of human/environment interactions in different cultures and environments.

##### **Conservation of Biodiversity**

Explores contemporary human impact on global biological diversity from interdisciplinary perspective. Assesses value of such conservation strategies as extractive reserves, national parks, and wildlife corridors.

##### **Environment and Development in Central America**

Studies the need for broad-based sustainable development using Central America as a case study. Considers how widespread deforestation and rapid population growth combine with other environmental factors to severely depress living standards throughout the region. Explores appropriate models of sustainable development for the region.

### **40. SAN JOSE STATE UNIVERSITY**

1600 Holloway Avenue  
San Francisco, CA 94132  
(415) 338-1111

#### **Environmental Studies**

*Department Website:* <http://www.sjsu.edu/depts/EnvStudies/>

*Course Descriptions:* <http://www.sjsu.edu/depts/EnvStudies/courses.htm>

##### **Resource Analysis: Quantitative Analysis of Earth's Natural Resources.**

Topics typically include the status and trends of resources such as topsoil, agriculture, water, energy, wildlife, and the impacts of human population growth on these resources. Emphasis is on problem solving and computational methods applied to resource management problems.

##### **Population and Environmental Change**

Impact of population changes and technological innovations on communities, countries, and environments. Comparisons of developed and developing societies from perspectives of environment, demography, land use, and food supply.

### **41. SETON HALL UNIVERSITY**

South Orange, NJ  
(973) 761-9000

#### **Department of Sociology and Anthropology**

##### **Population, Ecology and the Environment**

Industrialization and population growth have altered the earth's social and natural landscape, often times in dramatically harmful and incompatible ways. This course will look at the relationship between social variables like population size, growth and distribution (demography), their relationship to urbanization and the physical or natural environment (ecology). the context for understanding these developments will be cultural (values, beliefs, ideologies, etc.) and economic (poverty, growth, etc.).

Demography is the study of whole populations of people in terms of their size, age, and gender distribution. These characteristics change when one or more of the following elements change: fertility, mortality, migration, health, and sustenance

Ecology looks at the relationship of populations, societies to their natural environment. The impact of both on one another. For this course, we are concerned primarily with the mutual intersection of life in society on the natural and geographic landscape, both locally and internationally.

Our goal will be to relate the variables identified above to concepts or events like modernization, fertility control, third world development, multi-national corporations, and environmental preservation. Pro and con theories of population growth and control, modernization, and environmental preservation will be evaluated as well as policies and programs already in effect.

## **42. SIENNA COLLEGE**

*515 Loudon Road  
Loudonville, New York 12211-1462  
(518) 783-2300*

### **Environmental Studies**

*Department Website: <http://www.siena.edu/environment/>*

*Course Descriptions: <http://www.siena.edu/environment/>*

#### **Environmental Issues**

Major environmental issues of today's world will be discussed in sufficient depth to enable each student to evaluate the scientific aspects of current environmental problems. Topics covered may vary between semesters but will include issues such as human demography and food production, resource conservation, water quality and pollution, air pollution, radiation and toxic substances.

#### **Environmental Science**

This course is designed to introduce students from a variety of backgrounds to the basic scientific methods, tools and techniques needed to understand and analyze environmental issues. Topics covered will include ecosystem structure and function, population dynamics and regulation, resources and resource management, pollution, risk assessment and human health. All students will complete a project dealing with a current environmental issue. In addition, a strong emphasis will be placed on hypothesis testing, basic numerical manipulation, preparation and interpretation of graphical representations, and the operation of appropriate technology and instrumentation.

## **43. SKIDMORE COLLEGE**

*815 North Broadway  
Saratoga Springs, NY 12866  
(518) 580-5000*

### **Environmental Studies**

*Department Website: <http://www.skidmore.edu/academics/env/>*

*Course Descriptions: <http://www.skidmore.edu/academics/env/coursedescrip.htm>*

#### **Anthropology and Environmental Health**

An examination of health issues related to global environmental change. The course employs perspectives and theories of critical medical anthropology to explore the connections among broad patterns of environmental change, local responses to those changes, and relevant health concerns. Topics include the effects of population growth, urbanization, water pollution and water scarcity, epidemics, deforestation, and species extinction in diverse geographic settings. Special attention is given to how poor and powerless social groups bear a disproportionate burden of environmental health problems.

### **Ecological Anthropology**

Exploration of the principles by which the environment shapes human culture and human culture shapes the environment. Topics include the process of human adaptation, the analysis of human ecosystems, and the explanation of cultural diversity and change from an ecological perspective.

### **Marine Biology**

An examination of the intricate and delicate nature of plant, animal, fungal, and microbial life beneath the Earth's oceans and on its shorelines. Lecture topics include ocean chemistry and biochemistry, physiology of marine organisms, evolution and diversity of the marine world, marine ecosystems, and human-ocean interactions. The laboratory will include experimental manipulations of marine plants and animals, survey of various life forms, culture techniques, ecological sampling, and mariculture.

### **Environmental Biology**

An examination of the physical and biotic features of Earth, the role of humans in affecting the planet's ecology and the ways ecological systems affect humans. This course provides the fundamental concepts of environmental biology along with specific examples from the natural world and human modification.

### **Hydrogeologic Systems**

An advanced course on the physical processes of water transport and accumulation in surface and shallow subsurface environments, as well as environmental impacts on water quality. The first half of the course covers scientific principles of the hydrologic cycle including precipitation, evapotranspiration infiltration, groundwater flow, and surface runoff. The second half of the course examines the impacts of agriculture, urban development, and human population growth on both the quantity and quality of water in the hydrologic cycle.

### **Environmental Issues**

An exploration of the interaction between humans and the environment with special emphasis on differing points of view toward solutions of environmental problems. Issues such as population, the environment and technology, global warming, biological diversity, and economic survival will be addressed through the perspectives of economics and ecology.

### **Human Interaction with the Land - Attitudes and Impacts**

An introduction to the interrelationships between human attitudes and values and human management of the land and its essential resources. The class will examine the historical patterns of ways in which various societies have substantially modified the natural landscape-sometimes with a sense of stewardship, sometimes with a sense of anthropocentric arrogance.

## **44. SOUTHWESTERN UNIVERSITY**

*1001 E University  
Georgetown, TX 78626  
(512) 863-6511*

### **Environmental Studies**

*324 Mood-Bridwell Hall  
(512) 863-1591*

*Department Website: <http://www.southwestern.edu/academic/environmental-studies/>*

*Course Descriptions: <http://www.southwestern.edu/academic/environmental-studies/courses.html>*

### **Economic Development**

Economic Development focuses on the less-developed countries of the world and how the economic system of each affects people's lives. Each student chooses a country which they will investigate in depth, and the course proceeds to develop the historical and economic dimensions of the world system in which these countries exist. Major topics are (1) history and colonialism; (2) population, especially the interactions among economic change, social change, population and the environment (3) agriculture, rural-urban interactions, the role of women and household,

and migration; (4) the neo-liberal model of economic development and its critics. A major purpose of the course is to impart an understanding of the controversies surrounding these issues through readings written by leading scholars in the field.

#### **45. STATE UNIVERSITY OF NEW YORK COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY**

*Forestry Drive  
Syracuse, NY 13210  
(315) 470-6500*

##### **Environmental and Forest Biology**

*242 Illick Hall, 1 Forestry Drive  
Syracuse, NY 13210  
(315) 470-6770*

*Department Website: <http://www.esf.edu/efb/>  
Course Descriptions: <http://www.esf.edu/efb/courses.htm>*

##### **Global Environment**

A survey of current global environmental change, including global warming, acidic deposition, the ozone hole, El Nino, loss of biodiversity, and energy and population problems. Socio-economic and political ramifications of global change.

##### **Wilderness Wildlife Conservation**

Two hours of lecture and one hour of discussion and a week-long field trip during spring break. The course introduces students to the philosophy, concepts and practice of wilderness wildlife conservation, covering biology of selected species, ecosystems, special techniques and human dimensions.

#### **Environmental Studies**

*107 Marshall Hall  
1 Forestry Drive  
Syracuse, NY 13210-2788  
(315) 470-6636*

*Department Website: <http://www.esf.edu/es/>  
Course Descriptions: <http://www.esf.edu/es/courses.htm>*

##### **Social Processes and the Environment**

Three hours of lecture and discussion. A multidisciplinary social science perspective on the nature of the physical environment, particularly as it relates to the creation of human habitat. Human-environment interactions are viewed at three scales: macro-interactions concerning social and economic issues; (2) meso-interactions concerning behavior of groups; micro-interactions concerning perceptions and attitudes of individuals. Disciplines from which material may be drawn include: anthropology, ethnology, geography, political science, psychology, and sociology.

#### **46. STATE UNIVERSITY OF NEW YORK PLATTSBURGH**

*Plattsburgh, NY  
(518) 564-2000*

##### **Center for Earth and Environmental Science**

*Center Website: <http://spectra.plattsburgh.edu/cees/>  
Course Descriptions: <http://www.plattsburgh.edu/catalog/environmentalsciencecourses.cfm>*

##### **Environment and Society**

Demographic, economic, historical, cultural and policy aspects of environmental studies are analyzed with an emphasis placed on their interrelationships. Various human/environmental problems are considered, such as pollution, overpopulation and public policies.

#### **47. STATE UNIVERSITY OF NEW YORK PURCHASE**

*SUNY Purchase College  
735 Anderson Hill Road,  
Purchase, NY 10577*

##### **Natural Sciences**

*Natural Sciences Building, Room 2065  
(914) 251-6630*

*Department Website: <http://www.ns.purchase.edu/>*

*Division Website: <http://www.ns.purchase.edu/envsci/>*

*Course Descriptions: <http://www.ns.purchase.edu/envsci/courses.htm>*

##### **Introduction to Environmental Science**

Physical, biological, and cultural dimensions of environmental problems. The course surveys the historical roots of these problems and then considers components such as population pressure, air and water pollution, land use planning, energy and other earth resources, and public health. An introduction to ecological principles is provided.

#### **48. SWEET BRIAR COLLEGE**

*Sweet Briar, VA 24595  
(800) 378-6142*

##### **Environmental Studies**

*Department Website: <http://environsci.sbc.edu/>*

*Course Descriptions: <http://academic.sbc.edu/catalog/ENVR.html#ENVRcourses>*

##### **Environmental Geography**

As the process of globalization accelerates, we must acknowledge an increasing need to understand the large-scale environmental issues that affect our lives. These issues have a critical geographic dimension: they are influenced and controlled by the distribution of organisms, environments, and resources on the earth's surface. Environmental Geography will explore climate, biogeography, human population and resource use, biodiversity, sustainability and the Gaia theory from a geographic context. A solid foundation of traditional concepts of geography (topography, map reading, landscapes, etc.) will be constructed by relating them to current global events.

##### **Global Environment and International Development**

Prerequisites: ENVR 001 and one course in government. An examination of the interface between global environment and international development. The course examines leading theoretical frameworks explaining international economic development. Emphasis is given to explanations of environmental degradation in the context of global economic development. Issues of poverty, population, the role of women in development, ecological sustainability, and sustainable development will be discussed.

#### **49. THOMAS EDISON STATE COLLEGE**

*101 W. State St.  
Trenton, NJ 08608-1176  
(888) 442-8372*

##### **Environmental Science**

##### **Global Environmental Change**

Basic fundamentals of Global Environmental Science and the ecological principles necessary to understand the factors required to maintain ecological stability and preserve worldwide resources. There are six themes considered. They are as follows: the biosphere, population growth, energy, resources, biodiversity and worldwide resources.

*Course Website: <http://www.tesc.edu/catalog/course.php?CourseCode=ENS-314&sem=>*

## **50. TRINITY COLLEGE, HARTFORD CONNECTICUT**

*Hartford, CT 06106-3100*

*(860) 297-2000*

### **Environmental Science**

*300 Summit Street*

*Hartford, CT 06106*

*Department Website: <http://www.trincoll.edu/depts/envsci/>*

*Course Descriptions: <http://dep.trincoll.edu/envsci/major.htm>*

#### **Earth Systems Science**

Over recent centuries humans have evolved as the major agent of environmental change and are altering the global environment at a rate unprecedented in the Earth's history. This course provides the scientific background necessary for knowledgeable discussions on global change and the human impact on the environment. The major processes that affect the geo- and biosphere, as well as connections and feedback loops, will be discussed. The course also explores techniques that enable us to reconstruct short and long-term environmental changes from geological archives. Particular emphasis will be placed on climatic stability on Earth, the effects of global warming, the human threat to biodiversity, and the depletion of the ozone layer.

## **51. TRINITY COLLEGE, DC**

*125 Michigan Ave. NE*

*Washington, DC 20017*

*(202) 884-9000.*

### **Environmental Science**

*Department Website: [http://www.trinitydc.edu/academics/catalog/programs/env\\_sci.html](http://www.trinitydc.edu/academics/catalog/programs/env_sci.html)*

*Course Descriptions: [http://www.trinitydc.edu/academics/catalog/programs/env\\_sci.html#course](http://www.trinitydc.edu/academics/catalog/programs/env_sci.html#course)*

#### **Global Environmental Science**

Examines contemporary human impacts on the biosphere using the methods of science. Lectures present and analyze empirical data as one input to contemporary policy decisions on air and water quality, resource extraction, and conserving biodiversity.

Environmental science is an interdisciplinary field concerned with the interaction between a rapidly expanding human population and our finite natural resources. Today, significant environmental problems exist, including global warming, ozone depletion, acid rain, desertification, energy and mineral depletion, and loss of biodiversity, but in recent years we have also improved our scientific understanding of earth systems. Support for environmental protection is high among the American public, and satellite communication networks link nations together as never before, enabling scientists to communicate with the general public about environmental issues. The Environmental Science Program provides students with science credentials, knowledge of public policy and international relations, and good communications skills so they can pursue an increasing number of career opportunities.

## **52. TULANE UNIVERSITY**

*Department of International Health and Development*

*1440 Canal Street, Suite 2200,*

*New Orleans, Louisiana USA 70112*

*(504) 584-3655*

*Website: <http://www.tulane.edu/~inhl/about.shtml>*

The Department of International Health and Development is dedicated to improving the health status of people throughout the developing world. Teaching and research emphasize interdisciplinary, creative problem solving. The program addresses the needs of young and mid-

career professionals who intend to work outside the United States with international organizations, or in the US in multicultural contexts.

The curriculum and applied learning opportunities draw upon the extensive overseas research, technical assistance and professional experience of decades. IHD research projects and teaching specialty areas reflect significant international experience of faculty around the world with a range of organizations including the United States Agency for International Development (USAID), World Bank, World Health Organization (WHO), United Nations Fund for Population Activities (UNFPA), United Nations Children's Fund (UNICEF), Save the Children - UK, Christian Children's Fund and many others.

As part of a joint program with the Department of International Health and Development and the Stone Center for Latin American Studies at Tulane, coursework is offered on "Population-Environment Relationships: Theory and Evidence". There is also a two week Summer course in Guatemala for 10-14 students annually, titled: Population-Environment: Guatemala Practicum" (see website).

### **53. UNIVERSITY OF CALIFORNIA (BERKELEY)**

*Berkeley, CA 94720  
(510) 642-6000*

#### **Environmental Sciences**

*301 Campbell Hall, 642-0108*

*Department Website: <http://ls.berkeley.edu/ugis/environ/>*

*Course Descriptions: <http://ls.berkeley.edu/ugis/environ/page3.html>*

#### **Geography Natural Resources & Population**

The Conservation and Resource Studies (CRS) major is an interdisciplinary program designed for those who are interested in environmental issues and areas of interaction among natural resources, population, energy, technology, societal institutions, and cultural values.

### **53A. UNIVERSITY OF CALIFORNIA (DAVIS)**

*One Shields Avenue  
Davis, CA 95616  
(530) 752-1011*

#### **Environmental Science and Policy**

*Department of Environmental Science & Policy*

*University of California*

*One Shields Ave*

*Davis, CA 95616*

*(530) 752-3026*

*Department Website: <http://www.des.ucdavis.edu/>*

#### **Introduction to Environmental Studies**

Survey of the importance of ecology and systems behavior for human-environment relationships and management problems. Resources, environmental quality, urban dynamics, environmental perception, and conservation are covered. Includes several integrative case studies, and features individual reading in environmental problems. Not open for credit to students who have taken course 1. GE credit: SciEng, Wrt.

*Course Website: <http://www.des.ucdavis.edu/Courses/display.asp?ID=2>*

#### **54. UNIVERSITY OF CALIFORNIA (RIVERSIDE)**

900 University Avenue  
Riverside, CA, 92521  
(909) 787-1012

##### **Environmental Sciences**

University of California  
Riverside, CA 92521

Department Website: <http://envisci.ucr.edu/>

Course Descriptions: <http://www.students.ucr.edu/catalog/current/ensc.html#Ucourse>

##### **Introduction to Environmental Science: Natural Resources**

An introduction to environmental science, focusing on natural resource description, management, and conservation. Topics covered include ecosystem characteristics and function; material and energy flows; population dynamics and influence of population on the environment; energy resources and conservation; and mineral and soil resources and their management

##### **Honors Introduction to Environmental Science: Natural Resources**

An introduction to environmental science, focusing on natural resource description, management, and conservation. Topics covered include ecosystem characteristics and function; material and energy flows; population dynamics and influence of population on the environment; energy resources and conservation; and mineral and soil resources and their management.

#### **55. UNIVERSITY OF CALIFORNIA (SANTA BARBARA)**

Santa Barbara, CA  
(805) 893-8000

##### **Donald Bren School of Environmental Science & Management**

##### **Coastal Marine Ecosystem Processes**

Examination of physical, chemical and geological processes in coastal ecosystems, including estuaries, that are influenced by human activities. Focus centers on dynamical processes that control biological communities and resources, and the relationship of the science to marine resource management and policy.

#### **56. UNIVERSITY OF MAINE**

Orono, ME 04469  
(207) 581-1110

##### **Ecology and Environmental Sciences**

5782 Winslow Hall, Room 206  
Orono, ME 04469-5782  
(207) 581-3198

Department Website: <http://www.umaine.edu/ees/>

Course Descriptions: <http://www.umaine.edu/nrc/Curriculum/minor.htm>

##### **Human Population & the Global Environment**

Introduces the concepts and principles necessary to evaluate contemporary global issues of population growth, natural resource conservation and environmental protection. Surveys the historical development of environmental awareness in the United States. Develops skills to interpret critically the diverse types of information available about environmental issues.

## **57. UNIVERSITY OF MARYLAND (BALTIMORE COUNTY)**

1000 Hilltop Circle  
Baltimore, MD 21250  
(410) 455-1000

### **Department of Geography and Environmental Systems**

211 Social Sciences Bldg.  
1000 Hilltop Circle  
Baltimore, MD 21250  
(410) 455-2002

Department Website: <http://www.umbc.edu/ges/>

Course Descriptions: [http://www.umbc.edu/ges/ges\\_course\\_descriptions.html](http://www.umbc.edu/ges/ges_course_descriptions.html)

#### **Human Geography**

Study of the distribution of human activities and the causes and consequences of these distributions, including population, resources, economic activity, urban and rural settlements and cultural phenomena.

#### **Geography of the United States**

This course considers the physical, cultural, and economic geography of the United States. It stresses changing conditions, both economic and environmental, and the impacts of these changes on the nation's population and patterns of development.

#### **Geography of North America**

This course examines both the physical and cultural landscapes across North America. Principal themes to be appraised include the physiographic provinces which have afforded access or served as barriers, the emergence of some regions as centers of cultural and economic activity, the differential pattern of population distribution, the role of the continent's nations in the increasingly complex global system of nations, and the significance of transport both to internal development and to international connectedness. **Environmental Science and Conservation**

An introduction to the study of how human populations use and impact the earth's ecosystems. Topics covered include basic ecological principles, ecosystem dynamics, natural resources (air, water, soils, energy), human population growth, food production systems, biodiversity and endangered species, climate change, and pollution. Natural resource conservation policies and strategies are presented and evaluated.

## **58. UNIVERSITY OF MARYLAND (EASTERN SHORE)**

1 Backbone Rd.  
Princess Anne, MD 21853  
(410) 651-2200

### **Environmental Science**

Department Website: <http://www.umes.edu/sciences/environmental/envframes.htm>

Course Descriptions: <http://www.umes.edu/sciences/courses/coursedes.htm>

#### **Introduction to Environmental Sciences**

An introductory course in environmental science surveying the scope and extent of human's environmental problems. It deals with the socioeconomic and scientific aspects of pollution and control methods. Emphasis is on human's disruption of the environment, population growth, and urbanization costs, public policy, and environmental trade-offs, and control methods.

#### **Principles of Environmental Science**

An interdisciplinary course in environmental science aimed to develop concepts and subject matter in a logical progression. Various topics include ecology of natural systems, energy and pollution, extinction of species, population growth, agricultural systems, control of pests and weeds, air pollution, solid wastes, legal and economic aspects of environmental degradation.

## **59. UNIVERSITY OF MASSACHUSETTS (BOSTON)**

100 Morrissey Boulevard  
Boston, MA 02125-3393  
(617) 287-5000

### **Department of Biology and Human Populations**

*Department Website: [http://www.umb.edu/academics/undergraduate/biology\\_of\\_human\\_populations/](http://www.umb.edu/academics/undergraduate/biology_of_human_populations/)*

The Biology of Human Populations Program is administered by the anthropology and biology departments. The program is designed to expose interested biology majors to a number of anthropology courses, primarily in biological anthropology. A second goal is to assure that anthropology majors concentrating in biological anthropology achieve a strong foundation in the basic biological sciences.

## **60. UNIVERSITY OF MICHIGAN (ANN-ARBOR)**

Ann Arbor, MI 48109  
(734) 764-1817

### **School of Natural Resources and Environment**

*School Website: <http://www.snre.umich.edu/>*

*Course Descriptions: <http://www.snre.umich.edu/current-students/course-descriptions.php>*

#### **Introduction to Global Change II**

The purpose of this course is to guide students in learning about the natural world, the processes of science, and the role of human activities in shaping and changing the environment. Global Change II will examine the growth and spread of human population, and the problems of global environmental change produced by recent human advances in technology and institutions. We will consider the methods available for detecting global change, and then examine change in a number of key resources, including land, water, the atmosphere, and biological diversity. The course concludes by considering the political and policy considerations relevant to the transition to a more sustainable future. Global Change II is appropriate for all students and will assume no prior background. The homework and laboratories will depend heavily on the use of computers to perform spatial analysis, develop quantitative reasoning, write critically, and to promote personal interaction with the faculty.

*Course Website: <http://www.snre.umich.edu/current-students/course-detail.php?id=3>*

#### **Behavior and Environment: The Psychology of Human-Environment Interaction**

This course deals with two central themes: First, environmental problems are people problems, requiring an understanding of how people think, what they care about, what motivated them, and the conditions under which they behave most reasonably and creatively. Second, human behavior makes the most sense when studied in the context of the environment both present and evolutionary. This course builds a model of human nature based upon research in the field of environmental psychology. The course will explore such topics as environmental perception and knowledge; preferred environments and coping with the failure of preference; and mental attention fatigue and restoration. It then applies this model to such issues as common property resource management and the psychology of sustainability. The course is cross-disciplinary both in emphasis and student population with the disciplines of natural resource policy, planning and management; environmental education and communication; conservation behavior and conservation psychology; landscape architecture and urban planning; and green and sustainable business typically represented

*Course Website: <http://www.snre.umich.edu/current-students/course-detail.php?id=26>*

### **Introduction to Urban and Environmental Planning**

A comprehensive introductory course. Methods and processes in governmental planning and development of human activity systems requiring space, capital, and management components in the metropolitan environment. Major topics include: space and location planning, zoning and subdivision regulations, urban form and design, new town planning, housing urban renewal, transportation, metropolitan intergovernmental relations, comprehensive urban developmental planning, population and economic planning studies, planning techniques and methods. Emphasis is placed on recent developments and emerging problems.

*Course Website: <http://www.snre.umich.edu/current-students/course-detail.php?id=29>*

### **Graduate Experimental Course: Understanding the Root Causes of Environmental Concern Domestically and Internationally**

This seminar is directly related to the 2001-2002 Detroit Area Study. For our research we will be conducting a comparative study of urban populations to understand more fully why concern for the environment has become an international, if not global, phenomenon, and what ramifications this development might have for cross-cultural social understanding and international political action. This seminar's purpose is to explore the full range of social science research literature and existing conceptual understanding on the various dimensionalities [or meanings] of the environment, on how environment concern is formed and what values, if any, are linked to that concern. We are extremely interested in the possible differences and similarities that may exist cross cultures and whether or not a consistent or different set of dimensionalities and values, are the core of the concern. In addition to the city of Detroit, we are planning on investigating environmental values and concern in other urban locations such as Beijing, China; Capetown, South Africa; Warsaw, Poland; Belle Horizonte, Brazil, and possibly a few other places.

*Course Website: <http://www.snre.umich.edu/current-students/course-detail.php?id=199>*

## **61. UNIVERSITY OF MICHIGAN (DEARBORN)**

*4901 Evergreen Road  
Dearborn, Michigan 48128  
(313) 593-5000*

### **Department of Natural Sciences: Environmental Science BS**

*125 Natural Sciences Building  
4901 Dearborn  
MI 48301-1491  
(313) 593-5277*

*Department Website: <http://www.umd.umich.edu/casl/natsci/>  
Division Website: <http://casl.umd.umich.edu/natsci/envsci/index.htm>  
Course Descriptions: <https://web-sis.umd.umich.edu/cat2004ESCI.htm>*

### **Environmental Science**

A survey of historical and current environmental problems, with emphasis on understanding causes, consequences, and control. Topics include human population growth, air pollution, water pollution, and waste disposal. Laboratory emphasizes an experimental approach to environmental problems, including data collection, analysis, and interpretation.

## **62. UNIVERSITY OF NEVADA (LAS VEGAS)**

4505 Maryland Parkway  
Las Vegas, NV 89154  
(702) 895-3011

### **Environmental Studies**

4505 Maryland Parkway Box 454030  
Las Vegas, NV 89154-4030  
(702) 895-4440

Department Website: <http://environment.unlv.edu/>

Course Descriptions: <http://environment.unlv.edu/undergraduate/courses.html>

#### **Humans and the Environment**

Introduction to the relationship of humans and the environment. Selected aspects of current thinking and research concerning the impact of industrialization and urbanization on environmental quality, including the population explosion; the potential decline of the affluent society by the depletion of natural resources; the pollution of air, land surface and water; the public agencies and policies designated to solve environmental problems.

#### **Environment and Development**

Many environmental issues faced by developing countries differ fundamentally from those familiar to Americans. In this course, students discover interactions between development, population growth and the environments, and evaluate the value of possible interventions.

## **63. UNIVERSITY OF NEW HAMPSHIRE**

Durham, NH 03824  
(603) 862-1710

### **Environmental and Resource Economics**

Department Website: <http://www.dred.unh.edu/>

Course Descriptions: <http://www.dred.unh.edu/EREC.htm#Community%20Development%20Courses>

#### **Population, Food, and Resource Use in Developing Countries**

Economic, technical, cultural, social, and political factors that influence food supplies, nutrition resource use, employment, and income distribution in the developing countries; the population explosion; strategies for expanding food supplies; social and institutional constraints, strategies and policies for economic development.

## **64. UNIVERSITY OF NORTH CAROLINA (ASHEVILLE)**

1 University Heights  
Asheville, NC 28804  
1-800-531-9842

### **Environmental Studies**

Department Website: [http://www.unca.edu/envr\\_studies/](http://www.unca.edu/envr_studies/)

Course Descriptions: [http://www.unca.edu/envr\\_studies/courses.htm](http://www.unca.edu/envr_studies/courses.htm)

#### **Introduction to Environmental Science**

The biological, chemical, physical and societal implications of human impact on the environment with consideration of selected contemporary problems such as population issues, acid rain, energy supply, water pollution, etc.

## **65. UNIVERSITY OF NORTHERN COLORADO**

501 20 Street  
Greeley, CO 80639  
(970) 351-1890

### **Environmental Studies**

University of Northern Colorado  
(970) 351-2004

Department Website: <http://www.unco.edu/environmental/enst.html>

Course Descriptions: [http://catalog.unco.edu/2000-2001/Output/crs\\_desc40.html#1017457](http://catalog.unco.edu/2000-2001/Output/crs_desc40.html#1017457)

#### **Global Population and Human Needs**

A demographic perspective on human populations. Introduction to population processes of fertility, mortality, migration. Analysis of global patterns of demographic processes and the relation of culture to population growth and decline.

## **66. UNIVERSITY OF OREGON**

Eugene OR 97403  
(541) 346-1000

### **Environmental Studies**

5223 University of Oregon  
Eugene OR 97403-5223  
(541) 346-5000

Department Website: <http://darkwing.uoregon.edu/~ecostudy/>

Course Descriptions: [http://darkwing.uoregon.edu/~ecostudy/course\\_info/courses.htm](http://darkwing.uoregon.edu/~ecostudy/course_info/courses.htm)

#### **Introduction to Environmental Studies: Social Sciences**

Contributions of the social sciences to analysis of environmental problems. Topics include human population; relations between social institutions and environmental problems; and appropriate political, policy, and economic processes.

## **67. UNIVERSITY OF PITTSBURGH**

Pittsburgh PA, 15260  
(412) 624-4141

### **Geology and Planetary Science**

Department Website: <http://www.geology.pitt.edu/>

Course Descriptions: <http://www.geology.pitt.edu/courses/descriptions.html>

#### **Environmental Geology**

This course will provide the student with an awareness of the environmental problems we face today. Concepts of geochemical cycles and equilibrium will be examined. The impact of population growth and technological change upon the environment will be discussed. Detailed examples of environmental disruption will be presented, emphasizing volcanism, landsliding, oil spills, earthquakes, resource depletion, sea-level rise, greenhouse effect, ozone depletion, radon threats, etc. Students interested in this subject may concurrently take GEOL 0055 (Geology Laboratory - 2 credits). This would allow entry to other environmentally related courses in Geology.

### **Environmental Policy**

This course will provide a framework for understanding the complex interactions among policymakers, the public, and the environment. The course will ask students to consider current environmental problems of air quality, climate change, and decline of water quality and quantity, and to examine the roles of decision-makers. Each student will be asked to create an original piece of research. Each paper should analyze a policy problem and the choices facing decision-makers. The lectures, readings and research will be organized around U.S. environmental problems and policies, with an emphasis on southwestern Pennsylvania. In particular, the class will review the interaction between natural history and human development, and consider how these inter-relate. Policy responses including the development of the U.S.'s Clean Air Act and Clean Water Act will be considered, and current policy dilemmas will be examined. The course will seek to make use of the Hays Environmental Archives at the University of Pittsburgh; and will assist students to incorporate primary sources and archival materials into their research.

## **68. UNIVERSITY OF SAN DIEGO**

5998 Alcalá Park  
San Diego, CA 92110-2492  
(619) 260-4600

### **Marine and Environmental Studies**

Department Website: [http://www.sandiego.edu/mars\\_envi/](http://www.sandiego.edu/mars_envi/)  
Course Descriptions: <http://www.sandiego.edu/bulletin/as/Environmental.html>

### **Ecology and Environmental Biology**

Investigation of the natural environment and the relationship of its biotic and abiotic components. Topics include the ecosystem concept, population growth and regulation, and our modification of the environment. Laboratories will include field trips, one of which will be an overnight trip to the desert.

## **69. UNIVERSITY OF SAN FRANCISCO**

2130 Fulton Street  
San Francisco, CA 94117  
(415) 422-5555

### **Environmental Science**

Department Website: <http://artsci.usfca.edu/servlet/DeptWelcome?deptID=9>  
Course Descriptions: [http://www.usfca.edu/acadserv/catalog/envsci\\_ug\\_courses.html#498017](http://www.usfca.edu/acadserv/catalog/envsci_ug_courses.html#498017)

### **Understanding Our Environment**

This course serves as an introduction to and covers broad aspects of environmental science and environmental studies. For all cases, the resulting environmental impacts are studied in detail. Specifically, this course examines the risks associated with growth in a developing world; environmental impact of population growth on natural resources; mineral and resource extraction; water resource uses; and renewable and non-renewable sources for power generation. Emphasis is placed on a holistic approach to environmental science using laboratory exercises, environmental surveys, and class discussions to reinforce scientific principles.

## **70. UNIVERSITY OF TEXAS (AUSTIN)**

*Austin, TX 78712*

*(512) 475-7348.*

### **Environmental Science Institute**

*Institute Website: <http://www.geo.utexas.edu/esi/>*

#### **The Science of Environmental Change**

This forum seminar will explore the range of environmental problems that have been created by human activity and population growth. Among the major issues to be addressed are water resources, climate change, loss of species and possible solutions to these problems. The roles of science, policy-making, economic interests and the media will be examined in the context of these issues.

*Seminar Website: <http://www.utexas.edu/student/connexus/forumsem/spring03.html>*

## **71. UNIVERSITY OF VERMONT**

*Burlington, VT 05405*

*(802) 656-3131*

### **Environmental Sciences**

*Department Website: <http://www.uvm.edu/~envsci/about.html>*

Environmental quality is a central problem in society. How can we restore polluted environments and protect endangered species in the face of increasing development and an expanding human population? The Environmental Science major in the College of Arts and Sciences is tailored to students who want a flexible science degree that is centered around environmental issues. It emphasizes basic approaches to understanding the environment and environmental problems. Students completing this major will have the analytical skills and technical background necessary to compete in the job market for environmental science, or to continue with advanced studies in a graduate degree program.

## **72. UNIVERSITY OF VIRGINIA**

*Charlottesville, VA*

*(434)924-0311*

### **Environmental Sciences**

*(434) 924-7761*

*Department Website: <http://www.evsc.virginia.edu/>*

*Course Links: <http://www.evsc.virginia.edu/courses/index.shtml>*

*Course Descriptions: <http://www.evsc.virginia.edu/courses/ugrad/index.shtml>*

#### **Introduction to Environmental Sciences**

Introduces the principles and basic facts of the natural environment. Topics include earth materials, land forms, weather and climate, vegetation and soils, and the processes of environmental change and their implications to economic and human systems.

#### **Elements of Ecology**

Introduces the science of ecology and its application to current environmental issues. A number of topics relating to population growth and regulation, biodiversity, sustainability, and global change are used as a framework to investigate basic ecological principles. Emphasizes the application of basic science to the understanding and mitigation of current environmental problems.

### **Water on Earth**

Studies the natural history of the Earth's hydrosphere, including its origin, evolution, and importance in Earth processes. Introduces the hydrological cycle and the role of water in a variety of Earth processes. Discusses human influences on the hydrosphere and current topics in hydrological science and water resources, such as contamination and resource allocation, emphasizing the scientific basis for past, present, and future decisions.

### **73. URSINUS UNIVERSITY**

*P.O. Box 1000 (601 Main Street)  
Collegeville, PA 19426-1000  
(610) 409-3000*

#### **Environmental Studies**

*Department Website: [http://www.ursinus.edu/content.asp?page=AcademicPrograms/majors\\_and\\_programs.html&tab=Academic\\_Programs#Environmental](http://www.ursinus.edu/content.asp?page=AcademicPrograms/majors_and_programs.html&tab=Academic_Programs#Environmental)*

*Course Descriptions: <http://www.ursinus.edu/content.asp?page=AcademicPrograms/environStudies.htm>*

#### **Issues in Environmental Studies**

An introductory interdisciplinary course with readings and research on topics across all fields of environmental studies. This course examines environmental issues through many lenses, including ecology, economics, ethics, policy analysis, and the arts. Issues explored include (but are not limited to) population, energy, biodiversity and ecosystem conservation, food and agriculture, global warming, ozone depletion, air pollution, water resources management, and solid waste. Student projects include investigations of local environmental issues and applied conservation activities within the Ursinus and surrounding communities.

#### **Peoples and Their Environments**

Human cultural patterns and social institutions are adaptations to particular physical and social environments, and also have impacts on those environments. This course is concerned with the relationship between environments and subsistence systems on the one hand, and social/political institutions and belief systems on the other, using case studies from a variety of traditional societies. We will also consider the relationship between the global ecosystem and problems of Third World development, patterns of peasant production, causes and consequences of rapid population growth, and the fate of indigenous peoples.

### **74. UTAH STATE UNIVERSITY**

*Logan, UT 84322  
(435) 797-1000*

#### **Environment and Society**

*Department Website: <http://www.cnr.usu.edu/default.asp?category=departments&section=envs&content=index>*

*Course Descriptions: <http://www.cnr.usu.edu/default.asp?category=departments&section=envs&content=courses>*

#### **Human Impact on Environment**

Provides assessment of natural and man-related processes acting together to modify the global environment. Examines nature of global environmental change and contribution of human species to this change.

#### **Human Dimensions of Natural Resource Management**

Focuses on balancing science and values in ecosystem management and decision-making. Topics include environmental justice, communication and behavior change strategies, landscape perception and attitudes, resource-dependent communities, public involvement, and conflict management.

### **Theoretical Foundations in Human of Ecosystem Science and Management**

Overview of interdisciplinary theories and frameworks concerning how human societies affect, and are affected by, ecosystem processes at local, regional, and global scales. Focus on systems theory, social and environmental sustainability, and scientific integration for ecosystem planning, policy and management.

### **Wildlife Damage Management Policy**

Review and analysis of state and national policies associated with wildlife damage management issues. While often extremely controversial, these issues have significant impacts on food and fiber production, public health and safety, and wildlife conservation. Includes investigation of policies and techniques, and outlining of decision-making processes. Emphasizes issue identification and human dimension factors.

### **Research Approaches in Human Dimensions of Ecosystem Science and Management**

Experience conceptualizing and prioritizing research problems involving human societies and ecosystems. Review approaches for creating and testing interdisciplinary hypotheses that pertain to human-ecosystem interactions. Methods for integrating social and biophysical data are reviewed.

### **Research Techniques in Human Dimensions of Ecosystem Science and Management**

Experience using various quantitative and qualitative techniques and tools to collect and analyze data in research projects focused on human-ecosystem interactions. Topics range from survey sampling to use of simulation models and spatial statistics involving Geographic Information Systems.

## **75. WAKE FOREST UNIVERSITY**

*1834 Wake Forest Road  
Winston-Salem, NC 27106  
(336) 758-5255*

### **Environmental Studies**

*Wake Forest University PO Box 7375  
Winston-Salem, NC 27109  
(336) 758-5344*

*Department Website: <http://www.wfu.edu/academics/environmental/>*

*Course Descriptions: <http://www.wfu.edu/academics/environmental/geninfo/geninfo.htm#Requirements>*

### **Population and Society**

Techniques used in the study of population data. Reciprocal relationship of social and demographic variables.

### **Introduction to Environmental Studies**

An interdisciplinary course taught by faculty representing a number of fields. Topics include scientific principles, human populations, resource management, pollution, and environmental ethics.

## **76. WHEATON COLLEGE (MASSACHUSETTS)**

Norton, MA  
(508) 286-8200

### **Environmental Science**

*Department Website:* <http://www.wheatonma.edu/Academic/AcademicDept/biology/envscience/index.html>

*Course Descriptions:* <http://www.wheatonma.edu/Academic/AcademicDept/biology/envscience/courses.html#anchor266818>

#### **Environmental Science**

An overview of current environmental concerns and the scientific theory needed to address them. Population growth, community ecology, biodiversity, endangered species management, ground water quality, and introduced species.

## **77. WHITMAN COLLEGE**

345 Boyer Avenue  
Walla Walla, Washington 99362  
(509) 527-5111

### **Environmental Studies**

*Department Website:* [http://www.whitman.edu/environmental\\_studies/](http://www.whitman.edu/environmental_studies/)

*Course Description:* [http://www.whitman.edu/environmental\\_studies/courses.html](http://www.whitman.edu/environmental_studies/courses.html)

#### **Population**

An introduction to population theories and to sociological research on population growth, distribution, and composition within a world context. Problems of food production and distribution, agricultural development, and the environmental consequences of different farming systems will be analyzed in relation to population changes and the larger processes of social change.

*Course Website:* [http://www.whitman.edu/environmental\\_studies/courses.html#soc317](http://www.whitman.edu/environmental_studies/courses.html#soc317)

## **78. WITTENBERG COLLEGE**

Post Office Box 720  
Springfield, OH 45501  
(800) 677-7558

### **Environmental Studies**

P.O. Box 720

Springfield, OH 45501

*Department Website:* [http://www4.wittenberg.edu/academics/environmental\\_studies/](http://www4.wittenberg.edu/academics/environmental_studies/)

*Course Descriptions:* [http://www4.wittenberg.edu/academics/environmental\\_studies/Courses.html](http://www4.wittenberg.edu/academics/environmental_studies/Courses.html)

#### **Economics of Population Growth and Natural Resources**

Examination of the pattern of population growth and economic growth in developing and developed countries. Considers a variety of theories regarding the impact of population growth on resource scarcity.

*Course Website:* [http://www4.wittenberg.edu/academics/environmental\\_studies/Courses.html#Econ350](http://www4.wittenberg.edu/academics/environmental_studies/Courses.html#Econ350)

**79. YALE UNIVERSITY, SCHOOL OF FORESTRY AND ENVIRONMENTAL STUDIES (YSFES)**

*205 Prospect Street  
New Haven, CT 06511  
(203) 432-1500*

*Website: <http://www.yale.edu/forestry/>*

The school has Master and Doctoral Programs that incorporate human population topics in their coursework, to varying degrees. Coursework falls under the following categories: Ecology; Wildlife Ecology and Conservation Biology; Environmental Education and Communication; Forestry; Physical Sciences including Atmospheric Sciences and Water Resources; Quantitative and Research Methods; and the Social Sciences, including Economics, Environmental Policy, Health and the Environment, and Social and Political Ecology. For detailed information, go to the website for course descriptions.

As part of its *Bulletin Series*, the YSFES published “*Number 107: Human Population and Freshwater Resources: U.S. Cases and International Perspectives*” (available online at <http://www.yale.edu/forestry/publications/>). A “CEP Population and Environment Fellowship Program” to encourage research and involvement in the field has also been established in conjunction with the Center for Environment and Population (CEP).



ISSUES ON  
POPULATION  
& THE  
ENVIRONMENT

Number 2

*University Courses,  
Programs and Activities on Population  
and the Environment*

Center for  
Environment &  
Population

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