

# Environmental Studies

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Web: <http://internationalstudies.uchicago.edu/globalenvironment/>

## Program of Study

The Environmental Studies program is designed to emphasize interdisciplinary approaches to environmental topics while remaining flexible enough to foster innovative studies that incorporate models and methods from the social sciences, humanities, or natural sciences.

Students who are majoring in Environmental Studies are expected to build a foundation for studying environmental questions by completing basic course work both in the natural sciences and in quantitative analyses. The program draws on the existing strengths and interests of College faculty in a variety of disciplines and divisions. The curriculum is organized around required elements that include (1) a common introductory sequence; (2) course work in two broadly conceived thematic tracks; (3) a thesis; and (4) an internship or field studies component.

The two thematic tracks are (1) environmental economics and policy, and (2) socio-natural systems and frameworks. Although students will design a program of study that will emphasize one of the tracks, course work from each will be included.

The major in Environmental Studies is coordinated by the Program on the Global Environment, which is housed in the Center for International Studies (P 101).

Students in other fields of study may also complete a minor in Environmental Studies. Information follows the description of the major.

NOTE: The B.S. in Environmental Science that is offered by the Department of Geophysical Sciences may be more appropriate for students who intend to pursue postgraduate studies or professional careers in the natural sciences. Students who matriculated before July 2006 and have questions about Environmental Studies courses that they have already taken should contact the Environmental Studies Program Director, Mark Lycett (702-6040, [mlycett@uchicago.edu](mailto:mlycett@uchicago.edu)) to devise their plan of study.

## Summary of Program

Students who are majoring in Environmental Studies must take thirteen courses according to the following guidelines.

- I. Environmental Studies Core Sequence.** Students are required to take the two-course core sequence in Environmental Studies (ENST 21200-21300). Courses may be taken in any order. One course provides an overview of fundamental issues in environmental studies while the other stresses contemporary concerns and policy applications. Each course is oriented

toward one of the basic thematic tracks. Students are strongly encouraged to complete the sequence in their second year.

**II. Thematic Tracks.** Students must take four courses in their area of emphasis and two courses in their supporting track for a total of six courses.

- A. *Environmental Economics and Policy Track:* This concentration emphasizes issues such as environmental law, development, globalization, and policy studies. This track has a more applied focus and is inclined more toward present-day issues and strategies in the context of politics, law, and economics.
- B. *Socio-natural Systems and Frameworks Track:* This concentration emphasizes environmental history; landscape studies; human ecology and demography; and environmental ethics, philosophy, and representation. Included in this track are courses on cultural and historical constructions of the natural and the human; this track emphasizes intellectual frameworks as well as the use of substantive information from the social sciences, sciences, and humanities.

**III. Quantitative Analysis.** One course must be taken to demonstrate competence in quantitative analysis. Students may choose to take either STAT 22000 or an equivalent.

**IV. Environmental Sciences.** Students must take three courses in environmental sciences. This supporting course work must be chosen from an approved list.

**V. B.A. Thesis.** Students are required to take one course that emphasizes research design and skills and the writing process: ENST 29800, which emphasizes research design and skills and the writing process. Students are expected to develop significant independent research projects in close consultation with their preceptor and faculty adviser. In consultation with Environmental Studies preceptors, students prepare a topic page that is due eighth week of Spring Quarter in their third year. At this time students are also required to secure a faculty reader.

In Autumn Quarter of their fourth year, students register for the B.A. Thesis Seminar, which is designed to teach research skills and more generally to aid the research and writing process. The final version of the B.A. thesis is due by the second Friday of the quarter in which the student plans to graduate.

This program may accept a B.A. paper or project used to satisfy the same requirement in another major if certain conditions are met and with the consent of the other program director. Approval from both program directors is required. Students should consult with the directors by the earliest B.A. proposal deadline (or by the end of their third year, when neither program publishes a deadline). A consent form, to be signed by the directors, is available from the College adviser. It must be completed and returned to

the College adviser by the end of Autumn Quarter of the student's year of graduation.

**VI. Internship or field studies program.** In addition to course work, students will be required to participate in an approved internship or field studies program with significant links to their program of study.

### Summary of Requirements

2	Environmental Studies core sequence (ENST 21200-21300)
4	courses in the thematic track of emphasis
2	courses in the supporting thematic track
1	STAT 22000 or equivalent
3	courses in the environmental sciences chosen from an approved list
<u>1</u>	B.A. Thesis Autumn Seminar (ENST 29800)
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**Grading.** Students who are majoring in Environmental Studies must receive quality grades in all thirteen courses taken to meet the requirements of the program.

**Honors.** Eligibility for honors requires an overall GPA of 3.0 or higher, a GPA of 3.5 or higher in the courses taken to meet the requirements of the program, and a B.A. thesis that is judged to be superior by the faculty and preceptor readers.

### Minor Program in Environmental Studies

Students who are not Environmental Studies majors may complete a minor in Environmental Studies. Such a minor requires that six courses be taken according to the following guidelines: Human Impact on the Environment (ENST 21200), Making the Natural World: Foundations of Human Ecology (ENST 21300), and four courses in one of the two thematic tracks chosen in consultation with the program director.

Students who elect the minor program in Environmental Studies must meet with the program director before the end of Spring Quarter of their third year to declare their intention to complete the minor and select appropriate courses. The approval of the program director for the minor program should be submitted to a student's College adviser by the deadline above on a form obtained from the adviser.

Courses in the minor (1) may not be double counted with the student's major(s) or with other minors and (2) may not be counted toward general education requirements. Courses in the minor must be taken for quality grades, and at least

half of the requirements for the minor must be met by registering for courses bearing University of Chicago course numbers.

### Summary of Requirements for the minor program:

1	ENST 2120
1	ENST 21300
$\frac{4}{6}$	courses in one of the two thematic tracks

### Faculty

For a listing of the faculty board, visit [college.catalog.uchicago.edu](http://college.catalog.uchicago.edu) after May 2007.

### Courses: Environmental Studies (ENST)

#### I. Required Introductory Sequence

*ENST 21200 and 21300 are required of students who are majoring in Environmental Studies and may be taken in any order.*

**21200. Human Impact on the Environment.** The goal of this course is to analyze the impact of the human enterprise on the natural world that sustains it. Topics include human population dynamics, the role of economic and industrial activity in human well-being, our use of natural resources, biodiversity, sustainable development, and the role played by cultural institutions and values. *T. Steck. Autumn.*

**21300. Making the Natural World: Foundations of Human Ecology.** (=ANTH 21303) This course considers the conceptual underpinnings of contemporary Western notions of ecology, environment, and balance, but also examines several specific historical trajectories of anthropogenic landscape change. We approach these issues from the vantage of several different disciplinary traditions, including environmental history, philosophy, ecological anthropology, and paleoecology. *M. Lycett. Winter.*

#### II. General Courses

**11101-11201-11301. General Chemistry I, II, III: Variant A.** (=CHEM 11101-11201-11301) *PQ: Good performance on the mathematics or calculus placement test. The first two courses in this sequence meet the general education requirement in the physical sciences.* Variant A emphasizes the role of chemical and physical processes in the environment, especially in water and in the atmosphere. It also takes on a more synthetic perspective in the third quarter. *Autumn, Winter, Spring. L. M. Zhao. Autumn, Winter, Spring.*

**12100. Chemistry and the Atmosphere.** (=PHSC 13500) *PQ: MATH 10600, or placement in MATH 13100 or higher.* This course focuses on aspects of chemistry as they apply to the Earth's atmosphere. The first half considers atmospheric structure and fundamental chemical principles, while the second half presents examples of chemical systems that operate in the atmosphere. Topics include the chemical composition of the atmosphere, the structure of atoms and molecules, the nature of chemical reactions, the interaction of solar radiation with atmospheric gases, the properties of the water molecule, formation of an ozone layer, and the chemistry of urban air pollution. *J. Frederick. Autumn. L.*

**12300. Global Warming: Understanding the Forecast.** (=GEOS 13400, PHSC 13400) *PQ: MATH 10600, or placement into 13100 or higher, or consent of instructor required; some knowledge of chemistry or physics helpful.* This course presents the science behind the forecast of global warming to enable the student to evaluate the likelihood and potential severity of anthropogenic climate change in the coming centuries. It includes an overview of the physics of the greenhouse effect, including comparisons with Venus and Mars; an overview of the carbon cycle in its role as a global thermostat; predictions and reliability of climate model forecasts of the greenhouse world; and an examination of the records of recent and past climates, such as the glacial world and Eocene and Oligocene warm periods. *D. Archer. Spring. L.*

**12402. Life through a Genomic Lens.** (=BIOS 11125) *PQ: BIOS 10100 or 10110, or consent of instructor.* The implications of the double helical structure of DNA triggered a revolution in cell biology. More recently, the technology to sequence vast stretches of DNA has offered new vistas in fields ranging from human origins to the study of biodiversity. This course considers a set of these issues, including the impact of a DNA perspective on the legal system, on medicine, and on conservation biology. *A. Turkewitz, M. Nobrega. Winter.*

**12404. Environmental Ecology.** (=BIOS 13107, NTSC 10400) *PQ: BIOS 10100 or 10110.* This course emphasizes basic scientific understanding of ecological and evolutionary principles that relate most closely to the ways humans interact with their environments. Topics include population growth, adaptation, and ecosystem structure and function. We also discuss the regulation and consequences of biodiversity. *Discussion required. T. Price. Winter.*

**13106. The Hungry Earth: Light, Energy, and Subsistence.** (=BIOS 13106) *PQ: BIOS 10100 or 10110.* This course considers the continuing erosion of the resources of the Earth by the persisting pressures of a growing human population, which makes a broad knowledge and appreciation of biology essential. Discussion includes the principles of energy conversion by plants as primary producers, the evolution of the structures and mechanisms involved in energy conversion, the origin of crop plants, improvements of plants by conventional breeding and genetic engineering, and the interactions of plants with pathogens and herbivores. *M. Ruddat. Winter.*

**13300. The Atmosphere.** (=GEOS 13300) *PQ: MATH 13200 or consent of instructor.* This course introduces the physics, chemistry, and phenomenology of the Earth's atmosphere with an emphasis on the role of the atmosphere as a component of the planet's life support system. Topics include (1) atmospheric composition, evolution, and structure; (2) solar and terrestrial radiation; (3) the role of water in atmospheric processes; (4) winds, the global circulation, and weather systems; and (5) atmospheric chemistry and pollution. We focus on the mechanisms by which human activity can influence the atmosphere and on interactions between atmosphere and biosphere. *J. Frederick, N. Nakamura. Spring.*

**14200-14300. Paleoclimate, Earth Systems, and the Emergence of Humankind.** *PQ: MATH 10600, or placement into MATH 13100 or higher. Must be taken in sequence. Register by lab section.* This two-quarter sequence (Winter and Spring Quarters) aims to examine the complex natural systems that have determined Earth's environment during the time when *Homo sapiens* emerged as a species and began to alter the environment in the process of building settlement systems. The sequence is intended to prepare students to apply the insights and world views of physical science to the understanding of history and current world events. *Labs are done in the computer classroom of Crerar USITE.*

**14200. The Dynamic Environment: Global Systems and Climate During the Emergence of Humankind.** (=PHSC 13200) This course begins the two-quarter sequence by looking at the topic of human genesis through the eyes of the physical and biological sciences. By genesis, we mean the evolution of our species from ancestral apes during the time period when Earth's climate was descending into a sequence of abruptly changing ice ages. We examine the environmental dynamism using modern physical science techniques as a means to explore the various theories of Hominid evolution and migration. Topics include the fossil record of human evolution, the Y-chromosome record of human migration, effects of the little ice age, solar physics, radiation balance of the earth relative to the sun, greenhouse effect, Greenland ice-core geochemistry, ice-age Milankovitch theory, glacial geology, volcanoes and their effect on weather and climate, volcanic hazards to settlement, precipitation systems, El Niño and the Indian monsoon, groundwater hydrology, rivers and fluvial systems, deltaic sedimentation patterns. The computer lab (held in Crerar USITE) involves scientific visualization exercises using paleoclimate data with Matlab software. *D. MacAyeal. Winter. L.*

**14300. Settlement Systems, the Management of Nature, and the Emergence of Humankind within a Dynamic Environment.** (=PHSC 13300) *PQ: ENST 14200 or PHSC 13200.* This course represents the examination of human interaction with the dynamic environment during the emergence of civilization and settlement systems designed to reshape nature for the local benefit of human economy. Topics include the fossil record of hominid evolution, drying climates of Africa, the Younger Dryas event, catastrophic environmental change in the Black Sea associated with sea-level

rise, physics and chemistry of irrigation and water management, hydroelectric power generation, desert and Aeolian geomorphology, desertification, deforestation, primitive and advanced metallurgy as a basis for human culture, geoarchaeological methods, soil development, land degradation, sea-level rise, oil and petroleum production and environmental catastrophes in antiquity. The computer lab (held in Crerar USITE) involves scientific visualization exercises using paleoclimate data with Matlab software and satellite imagery with ArcMap software. Please register by lab section. *D. MacAyeal. Spring. L.*

**20500. Introduction to Population.** (=SOC1 20122/30122) This course introduces the field of demography, which examines the growth and characteristics of human populations. We give an overview of our knowledge of three fundamental population processes: fertility, mortality, and migration. We cover marriage, cohabitation, marital disruption, aging, and population and environment. In each case, we examine historical trends. We also discuss causes and consequences of recent trends in population growth, and the current demographic situation in developing and developed countries. *L. Waite. Winter.*

**21201. Human Impact on the Environment.** The goal of this course is to analyze the impact of the human enterprise on the natural world that sustains it. Topics include human population dynamics, the role of economic and industrial activity in human well-being, our use of natural resources, biodiversity, sustainable development, and the role played by cultural institutions and values. We read and discuss diverse sources and write short weekly papers. *T. Steck. Autumn.*

**21800. Economics and Environmental Policy.** (=PBPL 21800) *PQ: ECON 19800 or higher.* This course combines basic microeconomic theory and tools with contemporary environmental and resources issues and controversies to examine and analyze public policy decisions. Theoretical points include externalities, public goods, common-property resources, valuing resources, benefit/cost analysis, and risk assessment. Topics include pollution, global climate change, energy use and conservation, recycling and waste management, endangered species and biodiversity, nonrenewable resources, congestion, economic growth and the environment, and equity impacts of public policies. *S. Shaikh. Spring.*

**22000. The Anthropology of Development.** (=ANTH 22000/33500) This course applies anthropological understanding to development programs in “underdeveloped” and “developing” societies. Topics include the history of development; different perspectives on development within the world system; the role of principal development agencies and their use of anthropological knowledge; the problems of ethnographic field inquiry in the context of development programs; the social organization and politics of underdevelopment; the culture construction of “well-being”; economic, social, and political critiques of development; population, consumption, and the environment; and the future of development. *A. Kolata. Winter.*

**22100. Colonial Ecologies.** (=ANTH 28210/48210) This seminar explores the historical ecology of European colonial expansion in a comparative framework, concentrating on the production of periphery and the transformation of incorporated societies and environments. In the first half of the quarter, we consider the theoretical frameworks, sources of evidence, and analytical strategies employed by researchers to address the conjunction of environmental and human history in colonial contexts. During the second half of the course, we explore the uses of these varied approaches and lines of evidence in relation to specific cases and trajectories of transformation since the sixteenth century. *M. Lycett. Spring.*

**23100. Environmental Law.** (=HIPS 28801, PBPL 23100) *PQ: Third- or fourth-year standing, or consent of instructor.* This lecture/discussion course examines the development of laws and legal institutions that address environmental problems and advance environmental policies. Topics include the common law background to traditional environmental regulation, the explosive growth and impact of federal environmental laws in the second half of the twentieth century, regulations and the urban environment, and the evolution of local and national legal structures in response to environmental challenges. *G. Davis. Autumn.*

**23289. Marine Ecology.** (=BIOS 23289) *PQ: Prior introductory course in ecology or consent of instructor.* This course provides an introduction into the physical, chemical, and biological forces controlling the function of marine ecosystems and how marine communities are organized. The structures of various types of marine ecosystems are described and contrasted, and the lectures highlight aspects of marine ecology relevant to applied issues such as conservation and harvesting. *T. Wootton. Winter.*

**23500. Political Sociology.** (=PBPL 23600, SOCI 20106/30106) *PQ: Completion of the general education requirement in social sciences.* This course provides analytical perspectives on citizen preference theory, public choice, group theory, bureaucrats and state-centered theory, coalition theory, elite theories, and political culture. These competing analytical perspectives are assessed in considering middle-range theories and empirical studies on central themes of political sociology. Local, national, and cross-national analyses are explored. *T. Clark. Spring.*

**23600. The Environment in U.S. History.** (=HIST 19000, LLSO 23600) Contemporary environmental issues are deeply rooted in a complex history, often ignored or misunderstood. This course examines human engagement with the natural world in what is now the United States: how the expansion of the market economy impacted the natural world, how various peoples struggled to control resources, how landscapes changed from ecosystems to infrastructures, how natural resources fostered industry and agriculture, and how conceptions of the natural world evolved. We consider the politics, economics, and social



and cultural development of the United States in an environmental framework. *A. Gugliotta. Winter.*

**23700. Technology and Environment in History.** (=HIPS 23800, HIST 25201)

Technology is a principal means by which humans shape their living space and, often unintentionally, transform the natural environment. Important historical case studies include our use of resources and production of goods. We also consider the impact of such technologies on human affairs. Finally, we use these historical reflections to examine concepts of technological determinism and historical inevitability, choices among technologies, and the meaning of progress. *A. Gugliotta. Spring.*

**24101. U.S. Environmental Politics.** (=HIPS 28301, PBPL 22600)

This course introduces the actors and processes that shape environmental policies in the United States. We examine the conflicts in values that underlie contemporary environmental debates. Case studies are used to examine the effectiveness of governmental institutions and procedures addressing environmental problems. We also use these cases to examine our own values and how we think about people living in different places and in the future. *Autumn.*

**24301. International Development: Theory, Politics, and Policy.**

Why are some countries rich and others poor? How, if at all, can developed nations and international organizations promote development around the world? What are the power structures that define the meaning and implementation of international development? This course seeks answers to these questions. It provides a broad, interdisciplinary introduction to development studies. Topics include theories of economic development, Bretton Woods institutions, decolonization, gender, and human rights. *Autumn.*

**24400. Is Development Sustainable?** (=BPRO 23400, HIPS 23400, PBPL 24400)

*PQ: Third- or fourth-year standing.* This is a discussion course for students without a background in environmental issues. Its aim is to grapple with the “big problem” of sustainable development. We analyze problematical issues underlying population growth, resource use, environmental transformation, and the plight of developing nations through a consideration of economic, political, scientific, and cultural institutions and processes. *T. Steck, S. Pieck. Spring.*

**24701. U.S. Environmental Policy.** (=PBPL 24701)

Making environmental policy is a diverse and complex process. Environmental advocacy engages different governmental agencies, congressional committees, and courts, depending on the issue. This course examines how such differentiation has affected policy making over the last several decades. *R. Lodato. Winter.*

**24800. The Complex Problem of World Hunger.** (=BIOS 02810, BPRO 24800, SOSC 26900) *PQ: Third- or fourth-year standing.* Few of our policymakers are experts in economics, agronomy, food science, and molecular biology, yet all of these disciplines are essential for developing strategies to end world hunger. Choosing one country as a test case, we look at the history, politics, governmental structure, population demographics, and agricultural challenges. We then study the theory of world markets, global trade, and microeconomics of developing nations, as well as the promise and limitation of traditional breeding and biotechnology. *J. Malamy. Spring.*

**24901. Global Environmental Politics.** (=HMRT 24911, PBPL 24301) We examine the ways in which international society responds to global environmental problems. The aim is to develop a broad understanding of global environmental politics over the past three decades and provide tools for the analysis of complex environmental issues. The course will review the history of international environmental cooperation and key theoretical frameworks as well as identify the roles, interests, and behaviors of political actors. We apply these ideas to a variety of contemporary environmental debates related to trade, conservation, pollution, security, biotechnology, and climate change under the rubric of “global sustainable development.” *S. Pieck. Spring.*

**25100. Ecological Applications to Conservation Biology.** (=BIOS 23351, ECOL 31300) *PQ: Completion of the general education requirement for the biological sciences and consent of instructor.* We focus on the contribution of ecological theory to the understanding of current issues in conservation biology. We emphasize quantitative methods and their use for applied problems in ecology (e.g., design of natural reserves, risk of extinction, impact of harvesting, dynamics of species invasions, role of species interaction). Course material is drawn mostly from the current primary literature. *One Saturday field trip and computer modeling labs are in addition to scheduled class time. J. Bergelson, C. Pfister. Autumn. L.*

**25300. The Planetary Footprint of Farming.** (=GEOS 25300) *PQ: Third- or fourth-year standing, or consent of instructor.* This course draws on a ten-day field study of small, organic farms in the Berkshires to explore the environmental impact of modern industrial agriculture and realistic alternatives. Of interest are the roles of natural setting (i.e., geology, climate, meteorology); energy use and material flow; techniques of food production; dietary choices; and development and conservation strategies. A classroom component of lectures, readings, and exercises precedes the field trip. *Students are financially responsible for travel in December. G. Eshel, P. Martin. Autumn, Winter.*

**25500. Biogeography.** (=BIOS 23406, EVOL 45500, GEOG 25500/35500) *PQ: Completion of the general education requirement for the biological sciences and a course in either ecology, evolution, or earth history; or consent of instructor.* This course examines factors governing the distribution and abundance of animals and plants. Topics include patterns and processes in historical biogeography, island biogeography, geographical ecology, areography, and conservation biology (e.g.,

design and effectiveness of nature reserves). *B. Patterson (odd years, lab); L. Heaney (even years, discussion). Winter.*

**25900. Cultural Geography.** (=GEOG 20100/30100) This course is an examination of the two main concerns of this field of geography: (1) the logic and pathology revealed in the record of the human use and misuse of the Earth, and (2) the discordant relationship of the world political map with **more complicated patterns of linguistic and religious distribution.** *M. Mikesell. Winter.*

**26100. Roots of the Modern American City.** (=GEOG 26100/36100, HIST 28900/38900) This course traces the economic, social, and physical development of the city in North America from pre-European times to the mid-twentieth century. We emphasize evolving regional urban systems, the changing spatial organization of people and land use in urban areas, and the developing distinctiveness of American urban landscapes. *All-day Illinois field trip required. This course is offered in alternate years. M. Conzen. Autumn.*

**26500. Environmental Economics.** (=ECON 26500, PPHA 32800) *PQ: ECON 20100.* This course applies theoretical and empirical economic tools to environmental issues. Broad concepts discussed include externalities, public goods, property rights, market failure, and social cost-benefit analysis. These concepts are applied to areas including nonrenewable resources, air and water pollution, solid waste management, and hazardous substances. Emphasis is devoted to analyzing the optimal role for public policy. *G. Tolley, S. Shaikh. Winter.*

**26510. Advanced Topics in Environmental Economics.** (=ECON 26510) *PQ: ECON 20900, ECON 21000, ECON 26500, or ENST 26500.* This course applies theoretical and empirical economic tools to a number of environmental issues. We discuss broad concepts that include externalities, public goods, property rights, market failure, and benefit-cost analysis. These concepts are applied to a number of areas that include nonrenewable resources, air and water pollution, solid waste management, and hazardous substances. We emphasize analyzing the optimal role for public policy. *J. List. Spring.*

**27400. Principles of Epidemiology.** (=HSTD 30900, PPHA 36400, STAT 35000) *Prior course in statistics recommended.* Epidemiology is the study of the distribution and determinants of health and disease in human populations. This course introduces the basic principles of epidemiologic study design, analysis, and interpretation through lectures, assignments, and critical appraisal of classic and contemporary research articles. *L. Kurina. Autumn.*

**28001. Environmental Ethics.** (=RLST 25701) Is environmental ethics an application of traditional ethical theory or a new way of thinking ethically? The ideas we consider include ethical naturalism (Hans Jonas, Mary Midgley), utilitarianism (Peter Singer), ecophilism (Aldo Leopold), biocentrism (Paul Taylor), and duty-ethics (Holmes Rolston III). Our approach uses lectures, discussions, group work, and case studies. *M. Hogue. Spring.*

**28200. Reading American Environmental Classics.** (=ENGL 28000) Both historic and modern environmental classics are analyzed. Brief critical reviews by students serve as the basis for class discussion. Authors might include Crèvecoeur, Emerson, Thoreau, Mitchell, Nelson, Abbey, Dillard, and Leopold, as well as background materials from Nash and Meinig. *Class discussion encouraged. J. Opie. Spring.*

**29700. Reading and Research.** *PQ: Consent of faculty supervisor and program director. Students are required to submit the College Reading and Research Course Form. This course may be counted as one of the electives required for the major. This course is a reading and research course for independent study not related to B.A. research or B.A. paper preparation. Autumn, Winter, Spring.*

**29800. B.A. Thesis (Autumn Seminar).** *PQ: Students must have an approved topic proposal and a faculty reader. Required of fourth-year students who are majoring in Environmental Studies. This seminar is designed to aid students in their thesis research. Students are exposed to different conceptual frameworks and research strategies. The class meets weekly. Autumn.*

**29801. B.A. Colloquium I.** *PQ: Open only to students with fourth-year standing who are majoring in Environmental Studies. Must be taken for P/F grading. This two-quarter colloquium assists students in conceptualizing, researching, and writing their B.A. theses. It is required of all students who are majoring in Environmental Studies unless an exception is made by the program chair. D. Aftandilian. Autumn.*

**29802. B.A. Colloquium II.** *PQ: Open only to students with fourth-year standing who are majoring in Environmental Studies. Must be taken for P/F grading. This two-quarter colloquium assists students in conceptualizing, researching, and writing their B.A. theses. It is required of all students who are majoring in Environmental Studies unless an exception is made by the program chair. D. Aftandilian. Winter.*

**29900. B.A. Thesis (Reading and Research).** *PQ: Consent of instructor and program director. Students are required to submit the College Reading and Research Course Form. This is a reading and research course for independent study related to B.A. research and B.A. thesis preparation. Autumn, Winter, Spring.*

### *III. Environmental Studies Thematic Tracks*

*Most courses taken beyond the general education requirement that have significant environmental content may be counted in one of the two thematic tracks for the Environmental Studies major or minor. Approved courses for each of these tracks and for the environmental sciences course work requirement are selected quarterly by the faculty. No course may be counted for more than one requirement. For the complete list of approved courses, consult the program advisers or visit the Environmental Studies Web site at <http://internationalstudies.uchicago.edu/globalenvironment/>.*