

Environmental Studies

Spring 2010 Courses

INTD 150: Environment and Society (F2i)

MWF 10—10:50 4 credits Cappellato/Keller
This course is an introduction to some of the most pressing environmental issues of our time, as well as some of the efforts being made to address them at the local, regional and global levels. Topics will include population pressures, energy consumption, water scarcity, ozone depletion, sustainability practices, and global environmental governance, among other major environmental concerns and challenges. The course is co-taught with faculty from the humanities and the sciences. Participants will learn the science behind these issues, as well as the economic, political and social factors that influence environmental change and our responses to it.

INTD 222: Geographic Information Systems

W 4:15—5:45 1 credit Boyle
Geographic information systems (GIS) technology is a tool used for scientific investigations, resource management and development planning. GIS technology is a collection of digital maps, associated digital data, and software tools that can answer spatially posed questions. This course will introduce students to GIS technology, GIS software and the application of GIS in a variety of natural and social science disciplines, including anthropology, biology, economics and business, geology, political science, international studies, and urban studies.

INTD 322: Geographic Information Systems Research Seminar

R 4:15—5:45 1-3 credits Boyle
This course is designed for students who have already been introduced to the analytical tools of GIS. Students will undertake a research project under the supervision of one of the faculty teaching this course. The research project will culminate in a paper and presentation. The seminar will meet on an ongoing basis to exchange ideas, report on progress, and share potential sources of information.

ANSO 201: Human Evolution

MWF 12—12:50 4 credits Lusteck
This course gives students a broader perspective on what it means to be a human being, and how our species fits into a wider biological framework. Students will gain a better understanding of evolutionary theory by dispelling common misconceptions about evolution. The course looks at modern human variations and adaptations, and explores the range of human behavioral. Students will also learn about our nearest living relatives—the non-human primates. From what we've learned from our modern selves, and our primate cousins, we will examine the fossil record to try to piece together a picture of our human ancestors, and how we—modern *Homo sapiens*—came to be.

ENGL 332: Green Shakespeare

TR 2—3:15 4 credits Newstok
This seminar will explore Shakespeare's plays through a "green," environmental studies lens. We will consider to what extent Shakespeare's poems and plays are conducive to being interpreted "eco-critically," with special attention to topics such as: the pastoral mode; early modern ecological ruination; the Renaissance idea of "nature"; notions of "grafting"/manipulation of genetic stock; and relations between humans and animals. Readings will concentrate on the late Romances, but we will also survey poetry and history by Shakespeare's Renaissance contemporaries. This seminar coincides with a symposium on the topic on March 26, 2010, which students will be expected to attend.

INTS 321: Comparative Ecopolitics

TR 9:30—10:45 4 credits Sciubba
This course uses a comparative lens to study how domestic institutional settings create solutions and problems for issues with the environment, population, disease, technology, and globalization. We will examine the roles of regime type, advocacy and activism, political economy, and political culture across states and communities. The capstone of the course is project that explores Memphis as an analytical site where these issues converge. We will ask such questions as: How do different countries or communities end up with different solutions to the same environmental issue? Why are citizen groups focused on ecopolitical issues active in some communities and not others?

PHIL 302: Environmental Ethics

MWF 2—2:50 4 credits Terjesen
Environmental Ethics is concerned with examining moral problems and concerns that have an environmental dimension using concepts derived from normative (why is *this* good?) and meta-ethical (what is "goodness?") theories. Questions to be explored include: Can we use the same moral concepts we apply to human beings in our interactions with the environment? Does "nature" have intrinsic value? Do we have moral obligations to non-human organisms (and which organisms)? Should environmental policy be concerned with impact on future generations (and if so, to what extent)? What policies ought we to enact with regard to natural resources, including green space?

Environmental Science

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BIOL 212 & 214: Environmental Issues in Southern Africa and Field Study in Namibia

Day/Time TBA 4 credits + lab Cappellato
BIOL 212 is offered in the spring term for 2 credits. When combined with BIOL 214 course, offered in May-June, students receive a total of four credits, which count as an upper-level biology course with a lab. These courses offer an interdisciplinary examination of the environmental issues of a region famous for its captivating scenery, immense richness, and the cultural diversity of its people. During the Maymester in Namibia students visit different ecosystems such as the Namib Desert, the dry thornveld savannas, and the Kalahari sands. They meet with indigenous people, NGOs, and governmental officers involved in local environmental issues. Elephant and hyena tracking may be part of the educational experience.

BIOL 253 & 254: Coral Reef Ecology (F11)

M 3—3:50, Lab W 7:15—8:30 4 credits + lab Kesler
BIOL 253 is offered in the spring term for 2 credits. When combined with the two-week BIOL 254 course, offered in May-June, students receive a total of four credits, which count as an upper-level biology course with a lab. These courses provide students the opportunity to learn firsthand the strands of the enchanted braid that is the coral reef system. Natural history and ecological interactions are stressed in that students are expected to identify the organisms living on, in, and near coral reefs and mangrove forests and their interactions with each other. Students also extensively engage with the primary literature dealing with coral reefs. BIOL 140 (Biology of Organisms) is a pre or co-requisite for BIOL 253.

BIOL 320 & 320L: Conservation Biology

TR 11—12:15, Lab W 1—4 4 credits + lab Cappellato
Conservation biology examines the conservation of biological diversity at gene, population, species, and ecosystem levels. Learning the theories and practice of conservation biology and critically evaluating strategies adopted to prevent loss of biodiversity are the main objectives of this course. Laboratories and field work are designed to familiarize students with the research methods and tools used by conservation biologists.

GEOL 214: Environmental Hydrogeology (F7, F11)

MW 9-10:30, Lab T 12:30-3:30 4 credits + lab Houghton

In studying the hydrologic cycle, this course examines the response of our environment to natural and anthropogenic forces of change. Emphasis will be placed on sustainability and local environmental topics that will be explored during labs. A service-learning component of the course will involve a semester-long class project designed in cooperation with the local Environmental Justice coordinator of the Sierra Club as well as frequent service learning experiences with nearby Douglass High School and Douglass neighborhood. During a weekend field trip to Louisiana, we will observe human uses of the Mississippi River and visit a location where humans have been trying to prevent the Achafalaya River from overtaking the Mississippi River as the primary delta-forming river in the Gulf of Mexico.