

## Sustainability Courses Dickinson College Fall 2013

Listed here are courses offered during Fall 2013 that explore social, economic and environmental dimensions of sustainability challenges and solutions. The courses vary in the degree to which sustainability is a focus of study and are classified into two categories. **Sustainability Investigations** courses, identified by the label **SINV**, engage students in a deep and focused study of problems with sustainability as a major emphasis of the course. **Sustainability Connections** courses, identified by the label **SCON**, engage students in making connections between the main topic of the course and sustainability. Sustainability is related to but is not a major focus of SCON courses. In Fall 2013, 13 Sustainability Investigations and 36 Sustainability Connections courses are offered by 24 different departments.

DEPT	COURSE #	TITLE	DESIGNATION	DESCRIPTION	INSTRUCTOR	DIVISION
AMST	200	<b>Mass Media</b>	SCON	This course will examine the connections between mass media and American culture, focusing in particular on ideological constructions, commercialism, and audience reception. We will examine the origins of U.S. mass media, emphasizing the utopian hopes that American citizens brought to the media and the competing demands of commercial interests. Then we will turn our attention to analysis of the media itself, in particular television situation comedies, television advertisements, and television news. We will explore how meanings are constructed within media, the ways that different audiences interpret these meanings in multiple and often conflicting ways, and the ways that commercial constraints shape what we see and hear on television.	Amy Farrell	Interdisciplinary
ANTH	100	<b>Introduction to Biological Anthropology</b>	SCON	This course provides a comprehensive introduction to the field of biological anthropology. We will examine the development of evolutionary theory. We will then apply evolutionary theory to understand principles of inheritance, familial and population genetics in humans, human biological diversity and adaptations to different environments, behavioral and ecological diversity in nonhuman primates, and the analysis of the human skeleton and fossil record to understand the origin and evolution of the human family.	Karen Weinstein	2
ANTH	101	<b>Anthropology for the 21st Century</b>	SCON	The primary focus is on cultural anthropology, or the comparative study of human diversity across cultures. Guest lecturers will also contribute perspectives from other subfields within anthropology, namely archaeology, biological anthropology, and linguistic anthropology. The goal is to demonstrate how anthropological perspectives enlighten our understanding of contemporary social phenomena and problems, highlighting the relevance of anthropology to everyday lives and especially to issues of human diversity.	Kjell Enge	2
ANTH	110	<b>Archaeology and World Prehistory</b>	SCON	Archaeology is the primary means by which we decipher human prehistory. Using archaeology as a guide we will start with the origins of culture from its rudimentary beginnings nearly 4 million years ago, follow the migrations of hunters and gatherers, explore the first farming villages and eventually survey the complex urban civilizations of the Old and New Worlds. We will examine the development of technology, economic and social organization through the lens of archaeological techniques and discoveries throughout the world. Cross-listed as ANTH 110 and ARCH 110.	Maria Bruno	2
ANTH	216	<b>Medical Anthropology</b>	SCON	Comparative analysis of health, illness, and nutrition within environmental and socio-cultural contexts. Evolution and geographical distribution of disease, how different societies have learned to cope with illness, and the ways traditional and modern medical systems interact. Offered every other year.	Kjell Enge	2
ANTH	310	<b>Nutritional Anthropology</b>	SINV	Food is a biological necessity, yet food preferences and dietary practices are culturally determined and highly variable across time and space. This course examines nutrition and dietary variation from an anthropological perspective. We will first study the basics of food and nutrition, including the nutritional composition of food, nutritional requirements across the human life cycle, and standards for assessing dietary quality in individuals and populations. We will then examine the evolution of human dietary practices and we will explore how dietary variation is at the interface of biology, health, culture, and the environment. We will also learn about the effects of globalization and the commoditization of food on dietary choices, the health consequences of under-and over-the nutrition, and the social and historical constraints on food production and consumption in different societies.	Karen Weinstein	2
ARCH	110	<b>Archaeology and World Prehistory</b>	SCON	Archaeology is the primary means by which we decipher human prehistory. Using archaeology as a guide we will start with the origins of culture from its rudimentary beginnings nearly 4 million years ago, follow the migrations of hunters and gatherers, explore the first farming villages and eventually survey the complex urban civilizations of the Old and New Worlds. We will examine the development of technology, economic and social organization through the lens of archaeological techniques and discoveries throughout the world. Cross-listed as ANTH 110 and ARCH 110.	Maria Bruno	2
ARCH	218	<b>Geographic Information Systems</b>	SCON	Geographic Information Systems (GIS) is a powerful technology for managing, analyzing, and visualizing spatial data and geographically-referenced information. It is used in a wide variety of fields including archaeology, agriculture, business, defense and intelligence, education, government, health care, natural resource management, public safety, transportation, and utility management. This course provides a fundamental foundation of theoretical and applied skills in GIS technology that will enable students to investigate and make reasoned decisions regarding spatial issues. Utilizing GIS software applications from Environmental Systems Research Institute (ESRI), students work on a progression of tasks and assignments focused on GIS data collection, manipulation, analysis, output and presentation. The course will culminate in a final, independent project in which the students design and prepare a GIS analysis application of their own choosing. Cross-listed as ARCH 218, ENST 218 and ERSC 218.	Jim Ciarrocca	Interdisciplinary
BIOL	129	<b>Changing Ocean Ecosystem W/Lab</b>	SINV	An introduction to the biology of marine communities, including salt marshes and mangroves, intertidal zones, reefs, and deep-sea vents, among others. For each community, the physical characteristics of the environment as well as the physiological adaptations of the resident species will be examined. We will also focus on how marine communities are changing in response to anthropogenic stresses in light of concepts such as diversity indexes, keystone species, and disturbance theory. Selected readings from the primary literature and the popular press are required. Laboratory projects will emphasize experimental design and hypothesis testing. Three hours classroom and three hours laboratory a week.	Michael Potthoff	3
BIOL	314	<b>Ecology w/lab</b>	SINV	Study of the interactions of organisms with each other, and with their environment, at the level of the individual, the population, the community, and the ecosystem. Lectures and readings consider both the theory of ecology and data from empirical research in the classic and current literature. Laboratory and field studies explore how ecologists perform quantitative tests of hypotheses about complex systems in nature. Six hours classroom a week. Cross-listed as BIOL 314 and ENST 314.	Scott Boback	3

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DEPT	COURSE #	TITLE	DESIGNATION	DESCRIPTION	INSTRUCTOR	DIVISION
BIOL	320	<b>Forest Ecology &amp; Applications</b>	SCON	An exploration of the structure and function of forests with a focus on trees. Levels of organization from organs to the biosphere are considered. A set of topics, such as leaf-atmosphere interactions, whole-tree physiology, stand dynamics, energy flows, and biogeochemical cycles are examined in depth. The effects of human interventions in forests are considered as these provide insights into the processes operating within forests. The course includes quantitative analysis and a substantial field component. Three hours lecture and four hours laboratory each week. Cross-listed as BIOL 320 and ENST 340.	Brian Pedersen	3
BIOL	401	<b>Chemical Ecology</b>	SCON	Our interdisciplinary course will focus on the role of natural products in ecology, physiology, and medicine. The lecture portion will emphasize the chemistry behind the molecules that play a role in important biologically mediated interactions in nature. The laboratory will introduce you to the practice of science, including experimental design, laboratory techniques, and scientific communication. This new course is a "problem-based learning" course, and is sponsored by the National Science Foundation. Selected readings from the primary literature and the popular press are required. Laboratory projects will emphasize experimental design and hypothesis testing. Three hours classroom and three hours laboratory a week. Cross-listed as BIOL 401 and CHEM 490.	Amy Witter Tom Arnold	3
CHEM	490	<b>Chemical Ecology</b>	SCON	Our interdisciplinary course will focus on the role of natural products in ecology, physiology, and medicine. The lecture portion will emphasize the chemistry behind the molecules that play a role in important biologically mediated interactions in nature. The laboratory will introduce you to the practice of science, including experimental design, laboratory techniques, and scientific communication. This new course is a "problem-based learning" course, and is sponsored by the National Science Foundation. Selected readings from the primary literature and the popular press are required. Laboratory projects will emphasize experimental design and hypothesis testing. Three hours classroom and three hours laboratory a week. Cross-listed as BIOL 401 and CHEM 490.	Amy Witter Tom Arnold	3
EASN	206	<b>Paleoclimatology of East Asia</b>	SCON	This introductory-level course focuses on Quaternary climate change in East Asia (China, Korea and Japan) with special emphasis on the past 20,000 years. It is designed to be accessible to both science and non-science students. There are no prerequisites. Topics covered will include 1) global and regional mechanisms of frequent Quaternary climate change; 2) climate change records retrieved from loess deposits, marine sediments, and caves; 3) sea level change and its influence on regional land-sea interaction; 4) Himalaya uplift and East Asian monsoon evolution in the Quaternary based on records from Ocean Drilling Program Leg 184 and cave sediments; 5) climate change related to sustainable development in East Asia's large rivers and their deltas, including the Yellow and the Yangtze Rivers. Cross-listed as EASN 206 ENST 311 and ERSC 311.	Kelin Zhuang	2
ECON	111	<b>Introduction to Microeconomics</b>	SCON	A study of the fundamentals of economic analysis and of basic economic institutions, with particular emphasis upon consumer demand and upon the output and pricing decisions of business firms. The implications of actions taken by these decision-makers, operating within various market structures, upon the allocation of resources and the distribution of income are examined. Special attention is given to the sociopolitical environment within which economic decisions are made.	Nicky Tynan	2
ECON	222	<b>Environmental Economics</b>	SINV	A study of human production and consumption activities as they affect the natural and human environmental systems and as they are affected by those systems. The economic behavioral patterns associated with the market economy are scrutinized in order to reveal the biases in the decision-making process which may contribute to the deterioration of the resource base and of the quality of life in general. External costs and benefits, technological impacts, limits to economic growth, and issues of income and wealth distribution are examined. A range of potential policy measures, some consistent with our life style and some not, are evaluated. Cross-listed as ECON 222 and ENST 222.	Tony Underwood	2
ECON	288	<b>Contending Economic Perspectives</b>	SCON	A study of heterodox economic theories including radical, post-Keynesian, institutional, steady state, and neo-Austrian economics. The historical evolution of these different perspectives is traced and the core theory and methods of each is appraised.	Ebru Kongar	2
ENGL	403	<b>Thoreau &amp; American Nature Writing</b>	SINV	Thoreau's Walden is the foundational document of American nature writing. Many earlier American explorers, naturalists, and authors had described the natural wonders of the new continent, but until Thoreau, no author had located "nature" at the center of one vision of the American psyche. We will begin with a careful examination of Walden, its source texts and the texts it influenced. We will then seek to understand connections between Henry David Thoreau and the tradition of environmental writing that he began in America. This focus will allow us to engage important questions confronting students and scholars interested in the tradition of environmental literature in America, the sources of that tradition in a wider American culture, and the impact of that tradition on the current environmental movement, both nationally and internationally. Writers studied may include: Aldo Leopold, Edward Abbey, Annie Dillard, Peter Matthiessen, Terry Tempest Williams, Bill McKibben, and E. O. Wilson. From the preservation of wild lands to debates about global warming, from the desire to conserve and protect animal species to the need to make use of natural resources for the betterment of human life and communities, we will explore the ways that "nature writing" and "environmental literature" have played a crucial role in the development of these ideas. Students will write one short essay (8-10 pp.) of careful textual analysis. They will also produce one long research essay (12-15 pp.) which may or may not form the basis for their senior thesis in English 404.	B. Ashton Nichols	1
ENST	111	<b>Environment, Culture and Values</b>	SCON	A study of the effects of scientific, religious, and philosophical values on human attitudes toward the environment and how these attitudes may affect our way of life. By focusing on a particular current topic, and by subjecting the basis of our behavior in regard to that topic to careful criticism, alternative models of behavior are considered together with changes in lifestyle and consciousness that these may involve.	Mara Donaldson	2
ENST	131	<b>Introduction to Environmental Science: Natural Ecosystems and Human Disruption</b>	SINV	An integrated, interdisciplinary study of natural environmental systems and human impact on them. Basic concepts of ecology, such as biogeochemical materials cycling, energy flow, biotic interactions, and ecosystem regulation will be examined and utilized to study natural resource management, population dynamics, loss of biodiversity, and environmental pollution. Field study, including measurement of parameters in natural aquatic and terrestrial systems, data analysis, and data interpretation will be emphasized.	Candie Wilderman	2

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ENST	218	<b>Geographic Information Systems</b>	SCON	Geographic Information Systems (GIS) is a powerful technology for managing, analyzing, and visualizing spatial data and geographically-referenced information. It is used in a wide variety of fields including archaeology, agriculture, business, defense and intelligence, education, government, health care, natural resource management, public safety, transportation, and utility management. This course provides a fundamental foundation of theoretical and applied skills in GIS technology that will enable students to investigate and make reasoned decisions regarding spatial issues. Utilizing GIS software applications from Environmental Systems Research Institute (ESRI), students work on a progression of tasks and assignments focused on GIS data collection, manipulation, analysis, output and presentation. The course will culminate in a final, independent project in which the students design and prepare a GIS analysis application of their own choosing. Cross-listed as ARCH 218, ENST 218 and ERSC 218.	Jim Ciarrocca	2
ENST	222	<b>Environmental Economics</b>	SINV	A study of human production and consumption activities as they affect the natural and human environmental systems and as they are affected by those systems. The economic behavioral patterns associated with the market economy are scrutinized in order to reveal the biases in the decision-making process which may contribute to the deterioration of the resource base and of the quality of life in general. External costs and benefits, technological impacts, limits to economic growth, and issues of income and wealth distribution are examined. A range of potential policy measures, some consistent with our life style and some not, are evaluated. Cross-listed as ECON 222 and ENST 222.	Tony Underwood	2
ENST	310	<b>Environmental Health Sciences</b>	SCON	An interdisciplinary intermediate-level approach to the study of environmental problems and policy analysis. The course is project-oriented, with students bringing the experience and perspective of their own disciplinary major to bear on a team approach to the analysis and proposed resolution of an environmental problem. Topics vary depending on faculty and student interests, and on the significance of current affairs. Three hours of classroom and three hours of laboratory a week.	Greg Howard	2
ENST	311	<b>Paleoclimatology of East Asia</b>	SCON	This introductory-level course focuses on Quaternary climate change in East Asia (China, Korea and Japan) with special emphasis on the past 20,000 years. It is designed to be accessible to both science and non-science students. There are not prerequisites. Topics covered will include 1) global and regional mechanisms of frequent Quaternary climate change; 2) climate change records retrieved from loess deposits, marine sediments, and caves; 3) sea level change and its influence on regional land-sea interaction; 4) Himalaya uplift and East Asian monsoon evolution in the Quaternary based on records from Ocean Drilling Program Leg 184 and cave sediments; 5) climate change related to sustainable development in East Asia's large rivers and their deltas, including the Yellow and the Yangtze Rivers. Cross-listed as EASN 206 ENST 311 and ERSC 311.	Kelin Zhuang	2
ENST	311	<b>Global Environmental Politics</b>	SINV	This course provides an introduction to the study global environmental politics. It seeks to understand how the global environment is being changed by humanity and how individuals, communities, societies, organizations, movements, corporations and states are responding to those changes. Global environmental politics as a field of study is not settled terrain but a contested space because "where you sit in the world" points to very different interpretations about nature, the extent of environmental problems, who or what is at fault, and the equity or effectiveness of the proposed solutions. This course will be oriented around several overlapping thematic areas and ways of thinking about global environmental politics. First, we will engage in a discussion of global environmental governance, which focuses primarily on the role of the sovereign state, global organizations and international regimes to address worldwide environmental challenges. Second, we will question the extent to which efforts to govern the global environment have been equitable and effective, and begin to conceptually "unpack" the underlying worldviews that inform global environmental politics. In doing this, we will talk about the links between the global environment and economy and ask ourselves how issues like consumption, poverty and free trade affect humanity and the environment in a globalizing world. And finally, we will discuss the role of power, history and agency in environmental politics and ask provocatively where the "change we seek" comes from. To explore the above themes, we will look at data on global environmental trends and become familiar with the key issues that dominate the field including: globalization, climate change, forest and biodiversity policy, water and food issues, energy, consumption, trade, and sustainable development. Cross-listed as ENST 311 and INST 290.	Michael Beevers	2
ENST	311	<b>Practicum in Sustainability: Building Sustainable Communities</b>	SINV	Many communities are embracing sustainability as a goal of community development, giving weight to social equity, economic security and ecological integrity as they work to build the capacity of their residents to improve the quality of their lives. In this practicum course we will learn about different conceptions and models of sustainability and community development through case studies and a community-based research project with community partners in Carlisle. The research project will help students develop skills for building sustainable communities, working in teams and working with community partners. Lab hours will be used for in-class exercises, guest speakers, field trips to partner sites, and fieldwork for the research project. There may be one or two weekend field trips. Cross-listed as ENST 311 and SUST 301.	Neil Leary	2
ENST	311	<b>Buddhism &amp; the Environment</b>	SINV	Although protection of the environment is not a Buddhist goal per se, it is involved in the quest for enlightenment. The course will apply the Buddhist perspective to questions about the relations between humans and the rest of nature, to specific environmental problems, to the tradeoffs between human good and protection of other species, and to consumption and consumerism. Cross-listed as ENST 311 and RELG 311.	Daniel Cozort	1
ENST	314	<b>Ecology w/Lab</b>	SINV	Study of the interactions of organisms with each other, and with their environment, at the level of the individual, the population, the community, and the ecosystem. Lectures and readings consider both the theory of ecology and data from empirical research in the classic and current literature. Laboratory and field studies explore how ecologists perform quantitative tests of hypotheses about complex systems in nature. Six hours classroom a week. Cross-listed as BIOL 314 and ENST 314.	Scott Boback	2

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DEPT	COURSE #	TITLE	DESIGNATION	DESCRIPTION	INSTRUCTOR	DIVISION
ENST	330	<b>Environmental Policy</b>	<i>SNV</i>	This course examines the effect of environmental policies on environmental quality, human health and/or the use of natural resources at local, national and international levels. It considers the ways scientific knowledge, economic incentives and social values merge to determine how environmental problems and solutions are defined, how risks are assessed and how and why decisions are made. The course examines a range of tools, processes and patterns inherent in public policy responses and covers issues ranging from air and water pollution and toxic and solid waste management to energy use, climate change and biodiversity protection. A combination of lectures, case studies, laboratory exercises and field trips will be used.	Michael Heiman	2
ENST	340	<b>Forest Ecology &amp; Applications</b>	<i>SCON</i>	An exploration of the structure and function of forests with a focus on trees. Levels of organization from organs to the biosphere are considered. A set of topics, such as leaf-atmosphere interactions, whole-tree physiology, stand dynamics, energy flows, and biogeochemical cycles are examined in depth. The effects of human interventions in forests are considered as these provide insights into the processes operating within forests. The course includes quantitative analysis and a substantial field component. Three hours lecture and four hours laboratory each week. Cross-listed as BIOL 320 and ENST 340.	Brian Pedersen	3
ENST	406	<b>Understanding the Human Place in Nature: An Interdisciplinary Approach</b>	<i>SCON</i>	This seminar course explores in-depth the complex interactions between humans and the natural world through multiple and overlapping disciplines and viewpoints. We will reflect on what we mean by the environment and nature, and explore how these powerful concepts and understandings have evolved and been given significance through science, religion, philosophy, history, ethics, culture, politics, race and gender. The course engages critically with topics that lie at the heart of current environmental debates, and provides for understanding on issues ranging from wilderness and species protection and rainforest "destruction" to social justice, policy, planning and the commodification of the natural world. This course is designed to help us (re)evaluate our place in nature, comprehend the search for sustainability and guide our future endeavors. It is required for environmental studies and science students and highly recommended for those in all disciplines with an interest in living sustainability.	Michael Beevers	2
ERSC	141	<b>Planet Earth</b>	<i>SCON</i>	A study of plate tectonics with emphasis on ancient and modern geological processes associated with mountain building. The course builds knowledge through field and classroom studies of Appalachian geology, and by comparison of the Appalachians with active mountain belts in South America, Indonesia, and Asia. The course also develops a geologic understanding of the seismic and volcanic hazards associated with mountain building. The overall aim of the course is to illustrate the historical, predictive, and practical aspects of geologic principles and reasoning in scientific and societal contexts.	Ben Edwards	3
ERSC	142	<b>Earth History</b>	<i>SCON</i>	A study of the origin and evolution of the Earth, continents, atmosphere, ocean, and life over 4.6 billion years of Earth history. Topics will include deep time; plate tectonics and mountain building; continental position, ocean circulation, and climate change; expansion of biodiversity from single cells to higher order plants and animals including the rise of humans; mass extinctions; the theory of evolution; and the influence of historic earth processes on the formation of mineral and energy resources. Labs and Field trips will test geological and paleontological hypotheses regarding the reconstruction and interpretation of ancient sedimentary environments and biomes in the local area. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or QR distribution requirement.	Jeff Niemitz	3
ERSC	201	<b>Surface Processes</b>	<i>SCON</i>	Description, origin, development, and classification of landforms. Relationships of soils, surficial materials, and landforms to rocks, structures, climate, processes, and time. Topics will include interpretation of maps and aerial photographs of landscapes produced in tectonic, volcanic, fluvial, glacial, periglacial, coastal, karst, and eolian environments. Exercises will include: photo-geologic interpretation, surficial mapping, and classification of soils. Lectures, discussions, laboratories, and field trip(s). Three hours classroom and three hours laboratory a week.	Pete Sak	3
ERSC	218	<b>Geographic Information Systems</b>	<i>SCON</i>	Geographic Information Systems (GIS) is a powerful technology for managing, analyzing, and visualizing spatial data and geographically-referenced information. It is used in a wide variety of fields including archaeology, agriculture, business, defense and intelligence, education, government, health care, natural resource management, public safety, transportation, and utility management. This course provides a fundamental foundation of theoretical and applied skills in GIS technology that will enable students to investigate and make reasoned decisions regarding spatial issues. Utilizing GIS software applications from Environmental Systems Research Institute (ESRI), students work on a progression of tasks and assignments focused on GIS data collection, manipulation, analysis, output and presentation. The course will culminate in a final, independent project in which the students design and prepare a GIS analysis application of their own choosing. Cross-listed as ARCH 218, ENST 218 and ERSC 218.	Jim Ciarrocca	3
ERSC	221	<b>Oceanography</b>	<i>SCON</i>	An interdisciplinary introduction to the marine environment, including the chemistry of seawater, the physics of currents, water masses and waves, the geology of ocean basins, marine sediments and coastal features, and the biology of marine ecosystems. Topics include the theory of plate tectonics as an explanation for ocean basins, mid-ocean ridges, trenches, and island arcs. The interaction of man as exploiter and polluter in the marine environment is also considered. Three hours classroom and three hours laboratory per week.	Jeff Niemitz	3
ERSC	309	<b>Sedimentology and Stratigraphy</b>	<i>SCON</i>	A study of the processes and patterns of sedimentation as well as the spatial and temporal distribution of rock strata. This includes the origin, transportation, deposition, lithification, and diagenesis of sediments. Lithology, geochemistry, paleontology, geochronology, and seismology will be used to understand the history of rock strata. Three hours classroom and three hours laboratory a week. NOTE: Completion of both 305 and 309 fulfills the WR requirement.	Marcus Key	3
ERSC	311	<b>Paleoclimatology of East Asia</b>	<i>SCON</i>	This introductory-level course focuses on Quaternary climate change in East Asia (China, Korea and Japan) with special emphasis on the past 20,000 years. It is designed to be accessible to both science and non-science students. There are not prerequisites. Topics covered will include 1) global and regional mechanisms of frequent Quaternary climate change; 2) climate change records retrieved from loess deposits, marine sediments, and caves; 3) sea level change and its influence on regional land-sea interaction; 4) Himalaya uplift and East Asian monsoon evolution in the Quaternary based on records from Ocean Drilling Program Leg 184 and cave sediments; 5) climate change related to sustainable development in East Asia's large rivers and their deltas, including the Yellow and the Yangtze Rivers. Cross-listed as EASN 206 ENST 311 and ERSC 311.	Kelin Zhuang	2

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DEPT	COURSE #	TITLE	DESIGNATION	DESCRIPTION	INSTRUCTOR	DIVISION
FYSM	100	<b>First-Year Seminar: Animal Rights</b>	SCON	Animals have played a critical role in the development of human societies - as prey to be hunted, as livestock to be herded or raised on farms, as companions, as sources of recreation and as test subjects for medical and other scientific research. Many of these roles are still important in modern society, and each raises significant ethical questions. This course examines those questions, primarily through the Kantian and utilitarian ethical frameworks.	Tim Wahls	Other
FYSM	100	<b>First-Year Seminar: Water for a Thirsty World</b>	SCON	Water is a vital resource for the survival of life on this planet. We rely on it for food production, electricity generation, for bathing, drinking, and recreation. It shapes where and how we live. Access to clean water leads to economic prosperity, while lack of water can lead to poverty, war, and disease. In recent years, the demand for fresh water outweighs the supply, raising questions about how we will remedy this shortfall. This seminar will explore the topic of water from scientific, historical, economic, and international perspectives through readings, films, and field trips. We will begin by asking the question: What is water and where does it come from? What are some of the ways that humans impact their water supply, and what are the results? Should we trust that water from our tap is "clean"? How would we know? The economic and public health impacts of water will be examined by looking at how water is used during gas extraction in the Marcellus Shale. The impact of water (or lack thereof) in international politics (such as in the Euphrates River Valley, Haiti or in discussions of national security) will also be examined. Throughout this seminar students will be challenged to consider the questions: Who gets water and why? What would life be without water?	Amy Witter	Other
FYSM	100	<b>First-Year Seminar: Thoreau &amp; American Nature Writing</b>	SINV	Why have I titled our seminar Thoreau and American Nature Writing? Because Henry David Thoreau produced the ur-text, the foundational document, of American nature writing, and because the tradition that followed him has proven so important to the wider tradition of American literature. Nature writing of this kind may, in fact, be the only unique genre that America has contributed to world literature. How will we proceed? Our readings will be drawn from the following texts: Walden (Thoreau), Sand County Almanac (Aldo Leopold), Desert Solitaire (Edward Abbey), Pilgrim at Tinker Creek (Annie Dillard), The Snow Leopard (Peter Matthiessen), The End of Nature (Bill McKibben). We will also look at poems and prose extracts by William Blake, William Wordsworth, Robert Frost, and Seamus Heaney. The dates of composition of these texts range from the 1790s to our own decade. Although much has changed over the years covered by this time span, the central focus of our seminar's inquiry--the connection of humans to the natural world--has not changed. Why write about nature at all? What obligation, if any, does each of us have to nature? Are such questions even useful as ways of interpreting our experience? By examining the complexities of these ideas, we will explore various ways of defining ourselves and our relation to the world outside us.	B. Ashton Nichols	Other
HIST	254	<b>Russia: Quest for the Modern</b>	SCON	This course explores Russia's attempts to forge modernity since the late 19th century. Students will explore the rise of socialism and communism, centralization of nearly all aspects of life (arts, politics, economics, and even sexual relations), and opposition to the terror regime's attempts to remake life and the post-Soviet state's attempts to overcome Russia's past.	Karl Qualls	2
HIST	275	<b>The Rise of Modern China</b>	SCON	The history of China from the fall of the Qing dynasty in 1912 to the rise of China as a global economic and political power in the twenty-first century. Topics include issues of cultural change and continuity, the growth of modern business, women's rights, urban and rural social crises, the rise of modern nationalism, Communist revolution, the political role of Mao Zedong, post-Mao economic reform and social transformation, human rights, and prospects for Chinese democracy.	David Strand	2
HIST	315	<b>Disease in World History</b>	SCON	In this course, we will examine how and why concepts of disease have changed over time. We will also take a close and critical look at the roles that scholars have assumed diseases such as smallpox, plague, and influenza played in military conquest, social and economic transformations, and cultural changes around the globe.	Hilary Smith	2
INBM	100	<b>Fundamentals of Business</b>	SCON	This course features an introductory focus on a wide range of business subjects including the following: business in a global environment; forms of business ownership including small businesses, partnerships, multinational and domestic corporations, joint ventures, and franchises; management decision making; ethics; marketing; accounting; management information systems; human resources; finance; business law; taxation; uses of the internet in business; and how all of the above are integrated into running a successful business. You will learn how a company gets ideas, develops products, raises money, makes its products, sells them and accounts for the money earned and spent. This course will not fulfill a distribution requirement.	Helen Takacs	Interdisciplinary
INBM	200	<b>Global Economy</b>	SCON	Concentration upon strategies pursued by nation states in their interaction with international business enterprises and nongovernmental organizations. Students will work from an interdisciplinary perspective, with case studies of episodes in U.S. economic history and of selected countries from Africa, Asia, Europe and Latin America. To facilitate their analysis, students will study concepts drawn from trade theory, commercial and industrial policy, balance of payments accounting, exchange rate determination, and open-economy macroeconomics. As such, the course will draw heavily from the introductory economics courses. This approach will help develop an appreciation for the complex environment in which both political leaders and corporate managers operate. Cross-listed as INBM 200 and INST 200.	Michael Fratantuono	Interdisciplinary
INBM	400	<b>Seminar in International Business Policy and Strategy</b>	SCON	This capstone course focuses on the challenges associated with formulating strategy in multinational organizations. The course will examine multinational business decisions from the perspective of top managers who must develop strategies, deploy resources, and guide organizations that compete in a global environment. Major topics include foreign market entry strategies, motivation and challenges of internationalization, the analysis of international industries, building competitive advantage in global industries, and the role of the country manager. Case studies will be used to increase the student's understanding of the complexities of managing international business operations.	Michael Fratantuono Helen Takacs	Interdisciplinary
INST	200	<b>Global Economy</b>	SCON	Concentration upon strategies pursued by nation states in their interaction with international business enterprises and nongovernmental organizations. Students will work from an interdisciplinary perspective, with case studies of episodes in U.S. economic history and of selected countries from Africa, Asia, Europe and Latin America. To facilitate their analysis, students will study concepts drawn from trade theory, commercial and industrial policy, balance of payments accounting, exchange rate determination, and open-economy macroeconomics. As such, the course will draw heavily from the introductory economics courses. This approach will help develop an appreciation for the complex environment in which both political leaders and corporate managers operate. Cross-listed as INBM 200 and INST 200.	Michael Fratantuono	Interdisciplinary

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DEPT	COURSE #	TITLE	DESIGNATION	DESCRIPTION	INSTRUCTOR	DIVISION
INST	277	<b>International Politics of the Middle East</b>	SCON	This course examines key factors and events in the formation of the modern Middle East state system and evolving patterns of conflict and cooperation in the region. Students will apply a range of analytical approaches to issues such as the conflicts between Arabs and Israelis, Iraq's wars since 1980, and the changing place of the region in global politics and economics. Cross-listed as INST 277, MEST 266 and POSC 277.	Ed Webb	Interdisciplinary
INST	290	<b>Global Environmental Politics</b>	SINV	This course provides an introduction to the study global environmental politics. It seeks to understand how the global environment is being changed by humanity and how individuals, communities, societies, organizations, movements, corporations and states are responding to those changes. Global environmental politics as a field of study is not settled terrain but a contested space because "where you sit in the world" points to very different interpretations about nature, the extent of environmental problems, who or what is at fault, and the equity or effectiveness of the proposed solutions. This course will be oriented around several overlapping thematic areas and ways of thinking about global environmental politics. First, we will engage in a discussion of global environmental governance, which focuses primarily on the role of the sovereign state, global organizations and international regimes to address worldwide environmental challenges. Second, we will question the extent to which efforts to govern the global environment have been equitable and effective, and begin to conceptually "unpack" the underlying worldviews that inform global environmental politics. In doing this, we will talk about the links between the global environment and economy and ask ourselves how issues like consumption, poverty and free trade affect humanity and the environment in a globalizing world. And finally, we will discuss the role of power, history and agency in environmental politics and ask provocatively where the "change we seek" comes from. To explore the above themes, we will look at data on global environmental trends and become familiar with the key issues that dominate the field including: globalization, climate change, forest and biodiversity policy, water and food issues, energy, consumption, trade, and sustainable development. Cross-listed as ENST 311 and INST 290.	Michael Beevers	2
LALC	242	<b>Brazilian Cultural and Social Issues</b>	SCON	In this class students will learn about a variety of aspects of Brazilian culture and social issues. In particular, students will examine highly discussed topics in Brazil and about Brazil: samba, soccer, and carnival. Also, students will explore three different types of encounters: native encounters, African and Afro-Brazilian encounters, and gender encounters. Students will analyze these ideas concentrating on the nature of the encounters and the criticisms generated. Also, the class will examine issues of representation related to marginalization, violence, and banditry. In order to carry out the analysis of ideas and cultural representations and their development, students will work with a variety of texts from different disciplines—literature, anthropology, sociology, history, and film—and follow an intersectional methodology. This class is cross-listed as LALC 242 and PORT 242.	Carolina Castellanos	Interdisciplinary
LAWP	290	<b>The Legislative Process</b>	SCON	An analysis of the legislative branch of government, especially Congress. Emphasis is placed upon the legislature as a social system, the decision-making process, the interrelationships with the political parties and interest groups, the executive and the judiciary. Cross-listed as LAWP 290 and POSC 246.	Vanessa Tyson	Interdisciplinary
MATH	271	<b>Differential Equations</b>	SCON	Elementary methods of solutions of selected types of differential equations; solutions of systems of linear differential equations with constant coefficients; and a brief introduction to numerical methods and series solutions. Includes a strong emphasis on applications. Offered every two years.	Lorelei Koss	3
MEST	266	<b>International Politics of the Middle East</b>	SCON	This course examines key factors and events in the formation of the modern Middle East state system and evolving patterns of conflict and cooperation in the region. Students will apply a range of analytical approaches to issues such as the conflicts between Arabs and Israelis, Iraq's wars since 1980, and the changing place of the region in global politics and economics. Cross-listed as INST 277, MEST 266 and POSC 277.	Ed Webb	Interdisciplinary
PMGT	401	<b>Policy Management Senior Seminar</b>	SINV	This course will focus will serve as a capstone experience for Policy Management majors. It will echo the key principles covered in the Foundations class, including an appreciation for (1) fluid interdisciplinarity, (2) the contingent nature of knowledge, (3) connections to the wider world beyond the college, (4) principle-based models of leadership, (5) the meaningful application of ethics, and (6) the role of stakeholder values in problem analysis and decision making processes. Emphasis will be placed on acclimating students to the processes of complex problem solving that exist in a variety of contexts, including the public, non-profit, and private sectors, as well as in various comparative cross-cultural settings. "Policy Management" majors conclude their academic study of the various frameworks, orientations, stakeholders, and value sets that exist in different policy contexts by completing a comprehensive, hands-on policy management exercise.	James Hoefler	Interdisciplinary
PORT	242	<b>Brazilian Cultural and Social Issues</b>	SCON	In this class students will learn about a variety of aspects of Brazilian culture and social issues. In particular, students will examine highly discussed topics in Brazil and about Brazil: samba, soccer, and carnival. Also, students will explore three different types of encounters: native encounters, African and Afro-Brazilian encounters, and gender encounters. Students will analyze these ideas concentrating on the nature of the encounters and the criticisms generated. Also, the class will examine issues of representation related to marginalization, violence, and banditry. In order to carry out the analysis of ideas and cultural representations and their development, students will work with a variety of texts from different disciplines—literature, anthropology, sociology, history, and film—and follow an intersectional methodology. This class is cross-listed as LALC 242 and PORT 242.	Carolina Castellanos	Interdisciplinary
POSC	208	<b>Justice in World Politics</b>	SCON	An examination of how states ought to make ethical decisions about policies of global scope. Should asylum seekers and economic migrants be granted access to social services? How must states fight wars? How ought resources to be distributed between countries? We will explore the philosophical underpinnings of the arguments that have been developed in response to at least two of these questions.	Jason Reiner	2
POSC	246	<b>The Legislative Process</b>	SCON	An analysis of the legislative branch of government, especially Congress. Emphasis is placed upon the legislature as a social system, the decision-making process, the interrelationships with the political parties and interest groups, the executive and the judiciary. Cross-listed as LAWP 290 and POSC 246.	Vanessa Tyson	2

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DEPT	COURSE #	TITLE	DESIGNATION	DESCRIPTION	INSTRUCTOR	DIVISION
POSC	256	<b>The City</b>	SCON	An introduction to urban politics from a broadly comparative vantage point. Topics include the socioeconomic and cultural bases of city politics, power struggles and policy making within urban political arenas, and the relationship between urbanization and political development.	David Strand	2
POSC	258	<b>Human Rights</b>	SCON	The 1948 Universal Declaration of Human Rights embodies a global consensus on the fundamental importance of human rights as a political value. But the idea and its practical applications have provoked intense controversy around the world on issues such as freedom of expression, capital punishment and torture, gender and sexuality, religious freedom, social and economic justice, and cultural and minority rights.	David Strand	2
POSC	277	<b>International Politics of the Middle East</b>	SCON	This course examines key factors and events in the formation of the modern Middle East state system and evolving patterns of conflict and cooperation in the region. Students will apply a range of analytical approaches to issues such as the conflicts between Arabs and Israelis, Iraq's wars since 1980, and the changing place of the region in global politics and economics. Cross-listed as INST 277, MEST 266 and POSC 277.	Ed Webb	2
PSYC	340	<b>Research Methods in Social Psychology</b>	SINV	We conduct empirical studies in order to become familiar with techniques for measuring attitudes and social behavior in the field and the lab, for analyzing and evaluating data, and for reporting findings and conclusions. Students gain direct experience in the process of conducting research studies by working as experimenters and data analysts. Three hours classroom plus three hours laboratory a week.	Andy Skelton	2
RELG	311	<b>Buddhism &amp; the Environment</b>	SINV	Although protection of the environment is not a Buddhist goal per se, it is involved in the quest for enlightenment. The course will apply the Buddhist perspective to questions about the relations between humans and the rest of nature, to specific environmental problems, to the tradeoffs between human good and protection of other species, and to consumption and consumerism. Cross-listed as ENST 311 and RELG 311.	Daniel Cozort	1
SOCI	230	<b>Conflict &amp; Conflict Resolution Studies</b>	SCON	Conflict is an inescapable aspect of social life. It often seems that conflict is a chronic aspect of the human experience, and yet, as social beings living in mutually dependent social groups, we have developed various strategies for managing and resolving conflicts. We will explore the dynamics of conflict and the mechanisms to manage or resolve conflicts in various contexts—interpersonally, in families, workplace-based, among ethnic, racial, and religious groups, and internationally. This course will examine the growing literature on conflict studies, and will draw on inter-disciplinary perspectives to examine conflict and conflict resolution processes and strategies.	Shalom Staub	2
SOCI	237	<b>Global Inequality</b>	SCON	Exploring the relationship between globalization and inequality, this course examines the complex forces driving the integration of ideas, people, societies and economies worldwide. This inquiry into global disparities will consider the complexities of growth, poverty reduction, and the roles of international organizations. Among the global issues under scrutiny, will be environmental degradation; debt forgiveness; land distribution; sweatshops, labor practices and standards; slavery in the global economy; and the vulnerability of the world's children. Under specific investigation will be the social construction and processes of marginalization, disenfranchisement and the effects of globalization that have reinforced the division between the world's rich and poor.	Helene Lee	2
SUST	301	<b>Practicum in Sustainability: Building Sustainable Communities</b>	SINV	Many communities are embracing sustainability as a goal of community development, giving weight to social equity, economic security and ecological integrity as they work to build the capacity of their residents to improve the quality of their lives. In this practicum course we will learn about different conceptions and models of sustainability and community development through case studies and a community-based research project with community partners in Carlisle. The research project will help students develop skills for building sustainable communities, working in teams and working with community partners. Lab hours will be used for in-class exercises, guest speakers, field trips to partner sites, and fieldwork for the research project. There may be one or two weekend field trips. Cross-listed as ENST 311 and SUST 301.	Neil Leary	Interdisciplinary