Sustainability Courses Dickinson College (Spring 2012)

Listed here are courses offered in spring 2012 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 deep and focused study of problems of 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 Spring 2012, 23 Sustainability Investigations and 23 Sustainability Connections courses were offered by 21 different departments.

AFST	310	**Health and Healing in Africa**	*SCON*	This course will address three interrelated aspects of health and healing in Africa. We will examine health threats from a geographical and biomedical perspective, learning about epidemiology and biomedical care. We will place African helath matters into a framework of political economy, by which we can differently understand the causes and consequences of illness and the forces that shape and constrain care. Our overarching concern will be to learn about the cultural and historical dimensions of health and healing in several parts of the continent, bring anthropological knowledge to bear on contemporary health problems and thereby gaining an understanding of the lived experiences of health and healing in Africa. Cross-listed as AFST 310-08 and ANTH 245-01	Jim Ellison
ANTH	110	**Archaeology and World Prehistory**	*SCON*	It is often necessary to reflect upon the past to help us better understand the issues we face today and into the future. We live in a world with a diverse range of cultures and governments. We inhabit and have transformed a range of environments from dry deserts to tropical forests. Where did this diversity originate? How do societies obtain the food they need to sustain themselves? Why do we have centralized governments, and why are there such great differences in status and power among individuals in some societies? Archaeology, the study of ancient human behavior based on surviving material finds, can help us answer many of these questions as it permits us to discover how people lived and how their societies changed through time. 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. Cross-listed as ANTH 110-01 and ARCH 110-01.	Maria Bruno
ANTH	214	**Ecological Anthropology**	*SINV*	An examination of human adaption to changing environments with an emphasis on systems analysis. Special attention to development and current environmental problems. This course is cross-listed as ANTH 214-01 and ENST 214-01.	Kjell Enge
ANTH	245	**Health and Healing in Africa**	*SCON*	This course will address three interrelated aspects of health and healing in Africa. We will examine health threats from a geographical and biomedical perspective, learning about epidemiology and biomedical care. We will place African helath matters into a framework of political economy, by which we can differently understand the causes and consequences of illness and the forces that shape and constrain care. Our overarching concern will be to learn about the cultural and historical dimensions of health and healing in several parts of the continent, bring anthropological knowledge to bear on contemporary health problems and thereby gaining an understanding of the lived experiences of health and healing in Africa. Cross-listed as AFST 310-08 and ANTH 245-01	Jim Ellison
ANTH	260	**Environmental Archeology**	*SINV*	In this class, we will examine the methods and theories that contribute to our understanding of past human-environmental interactions and how they have varied through time and space. We are currently experiencing national and international debates about the impact humans have on our planet. Are our behaviors causing global warming? Is it a natural process? How will these changes in rainfall and temperature affect our food systems, towns, and cities? How are they affecting the flora and fauna? In order to contextualize our current situation, it is useful to consider these dynamics in the past. Humans have been interacting with, adapting to, and modifying their natural surroundings for thousands of years. In this class, we will explore different anthropological and archaeological theories regarding how humans interact with the natural world: do we simply adapt to these conditions (temperature, rainfall, vegetation) or do we actively modify them to suit our needs? We will learn about, as well as experience, some of the methods archaeologists use to reconstruct past human interactions with geological entities (geoarchaeology), plants (archaeobotany), and animals (zooarchaeology). Cross-listed as ANTH 260 and ARCH 260.	Maria Bruno
ARCH	110	**Archaeology and World Prehistory**	*SCON*	It is often necessary to reflect upon the past to help us better understand the issues we face today and into the future. We live in a world with a diverse range of cultures and governments. We inhabit and have transformed a range of environments from dry deserts to tropical forests. Where did this diversity originate? How do societies obtain the food they need to sustain themselves? Why do we have centralized governments, and why are there such great differences in status and power among individuals in some societies? Archaeology, the study of ancient human behavior based on surviving material finds, can help us answer many of these questions as it permits us to discover how people lived and how their societies changed through time. 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. Cross-listed as ANTH 110-01 and ARCH 110-01.	Maria Bruno

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ARCH	218	**Geographic Information Systems**	*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, anaylsis, output and presentation. The course will culminate in a final, independent project in which the students design and perepare a GIS analysis application of their own choosing. Cross listed as ARCH 218-01, ENST 218-01, and ERSC 218-01.	Kristen Brubaker
ARCH	260	**Environmental Archeology**	*SINV*	In this class, we will examine the methods and theories that contribute to our understanding of past human-environmental interactions and how they have varied through time and space. We are currently experiencing national and international debates about the impact humans have on our planet. Are our behaviors causing global warming? Is it a natural process? How will these changes in rainfall and temperature affect our food systems, towns, and cities? How are they affecting the flora and fauna? In order to contextualize our current situation, it is useful to consider these dynamics in the past. Humans have been interacting with, adapting to, and modifying their natural surroundings for thousands of years. In this class, we will explore different anthropological and archaeological theories regarding how humans interact with the natural world: do we simply adapt to these conditions (temperature, rainfall, vegetation) or do we actively modify them to suit our needs? We will learn about, as well as experience, some of the methods archaeologists use to reconstruct past human interactions with geological entities (geoarchaeology), plants (archaeobotany), and animals (zooarchaeology). Cross-listed as ANTH 260 and ARCH 260.	Maria Bruno
ARCH	318	**Advanced Applications in GIS**	*SCON*	The course is intended as a continuation of the introductory course on Geographic Information Systems, ENST 218, and will concentrate on more advanced discussions and techniques related to spatial analysis and GIS project design. The main focus of the course will be on using higher-level GIS methods to investigate and analyze spatial problems of varying complexity; however, the specific project and topical applications will vary depending on student interests. Students will be required to develop and complete an individual spatial analysis project that incorporates advanced GIS techniques. Cross listed as ARCH 318-01, ENST 318-01 and ERSC 318-01.	James Ciarrocca
ARTH	360	**Ecological Art Practice**	*SINV*	Ecological Art Practice or Ecoart will focus on environmental and ecological considerations as central to the production of art works. The course will survey the history of environmental and earth art and consider its relevance today given the current sustainability movement. It will investigate sustainability as the primary issue placed on studio practice and art consideration. We will question contemporary studio practices and work immersively on the Dickinson Campus farm, where weekly experiential exercises will engage students in thinking about and practicing farming as an art and craft of life.	Anthony Wolking
BIO	120	**Life at the Extremes: A Survival Guide**	*SCON*	The Weddell Seal holds its breath for 40 minutes while routinely diving to a depth of 1,500 feet in -1.6°C water and Bar Headed Geese migrate at thousands of feet above the summit of Mt. Everest. How do these animals accomplish these seemingly amazing tasks? Questions of survival and more will be addressed in this study of comparative physiology. We will seek explanations of these phenomena by first evaluating the physical nature of these hostile environments and then exploring the mechanisms of survival. We will also investigate our own physiology and human limits of performance. Lecture will be enhanced by laboratory experiences in experimental physiology and vertebrate dissection. Three hours classroom and three hours laboratory a week.	Scott Boback
BIO	126	**Infectious Disease vs. Immune Defense**	*SCON*	Given the variety and virulence of the hundreds of pathogens we are exposed to every day, it seems miraculous that any of us survives into adulthood. This course will consider the biology of pathogens and the immunological defense systems which help conteract them. Both a human-based and comparative approach will be employed. Lecture, discussion and lab segments will emphasize the application of knowledge, the interpretation of scientific and popular information, and the demystification of disease and immunity. Students finishing this course should have a new found appreciation of the molecular, genetic and cellular mechanisms underlying disease and defense. Three hours classroom and three hours laboratory a week.	John Henson
BIO	128	**Field Natural History**	*SINV*	During the past fifty years, people have become nearly isolated from their natural environment. Fewer farms, urbanization, the expansion of suburbs, air conditioning, mall shopping, posted land, less access to waterways, forgotten victory gardens and a host of other societal changes as created a generation that is suffering from Nature Deficient Disorder. Even the science of Biology has become more concentrated in the cellular and molecular realm than the field sciences. This course will explore the realm of field biology and natural history in the Carlisle area and familiarize students with some of the common forms of life outside the classroom. Being familiar with the organisms that compose ecosystems enables a student to have a better understanding of the principals of ecology. A major emphasis will be placed on sustaining biodiversity in both the local area and more broadly, the United States.	Gene Wingert
BIO	129	**Changing Ocean Ecosystems**	*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
BIO	315	**Population Genetics and Evolution**	*SCON*	Study of current knowledge of the evolutionary process and its genetic basis. Lecture, readings from the primary literature, laboratory investigations, and field study are used to consider evolutionary trends. Emphasis is on the new approaches that population geneticists and evolutionary biologists are using to reexamine such issues as how evolution affects gene pools; the implications of the fossil record; causes of extinctions; how species originate; relationships among living organisms; and adaptive versus non-Darwinian evolution.	Scott Boback

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EASN	206	**Six East Asian Cities**	*SCON*	East Asian Cities have been deeply involved with East Asian and global history as the capitals of empires and nations, colonial outposts, and commercial, industrial and cultural centers. We will profile six important East Asian cities: Ho Chi Minh City, Hong Kong, Shanghai, Tokyo, Beijing, and Seoul. We will examine their common and separate histories and the roles they play in contemporary Vietnamese, Chinese, Japanese and Korean affairs, the East Asian region, and the world. Cross-listed as EASN 206-01 and HIST 215-01.	David Strand
EASN	306	**Politics of Environmental Protection in Asia**	*SINV*	This seminar takes a close look at the political, social, cultural, and legal issues that affect environmental protection in Asia. Focusing attention on China, Japan, India and Taiwan, and by drawing upon scholarly literature in political science, sociology, anthropology, law, and history, the course aims to provide students with a multidisciplinary understanding of the myriad factors which shape the content of environmental legislation and policies and how these are implemented in society. Does China's authoritarian system give environmental laws more "bite"? What roles do NGOs play in Asia? Does Confucianism, Shintoism or Hinduism make people more or less inclined to protect the environment? How do Asians deal with the impact of rapid economic growth? In short, we will try to understand the complex interaction between political, legal, and social dimensions of environmental protection in a region that is home to half of the world's population and three of the world's current and future economic powerhouses. Cross listed as EASN 306-01, ENST 311-04 and POSC 390-04	Neil Diamant
ECON	111	**Introduction to Microeconomics**	*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.	Kogar, M; Berger, S; Dean, E
ECON	214	**Cuba: Economic, Environmental and Social Sustainability and Resliency**	*SINV*	At the beginning of the 21st century, Cuba, a small (however the biggest) island nation in the Caribbean, with a population of 11 million, is facing major challenges as it attempts to carry on and further develop its unique brand of 21st Century socialism. This globally integrated course is a co-taught economics and sociology course that focuses broadly on the questions of sustainabilty from economic, environmental, political, cultural and social perspectives. It examines contemporary economic and social conditions and policies, international relations, and the ramifications of the Cuban revolution of 1959. Special attention will be given to urban agriculture as well as to social policy related to health, education, family, youth, gender and sexuality. In order to deepen our understanding of Cuba's economy, society, and culture today, we will integrate a 10-day study tour of Cuba over spring break. Application due to OGE by September 21. Cross listed as ECON 214-01 and SOCI 230-06.	Rose, S. and Koont, S.
ECON	222	**Environmental Economics**	*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 222-01 and ENST 222-01.	Sebastian Berger
ECON	228	**Economic Analysis of Policy**	*SCON*	This course introduces the basic economic techniques used in the analysis of public policy and applies these techniques to a variety of social problems and policies. The economic techniques taught include the analysis of market failure, benefit-cost analysis, and economic impact analysis. Applied topics vary, but are likely to include education and job training, welfare reform, subsidies for the arts, and housing policy for the poor, among others. Whenever possible, this course will include one or more group research projects related to the Central Pennsylvania region. Past projects have included the economic impact of Dickinson College and an analysis of the economic and social conditions in Carlisle's Hope Station neighborhood.	Tricia Hawks
ECON	496	**Economics Seminar**	*SCON*	In a world of unprecedented wealth, the average life-expectancy in some parts of the world is 41 years. Almost 2 million children die each year because they lack access to clean water and adequate sanitation. 100 million women are not alive today due to unequal access to health care and economic resources. In the United States, infant mortality rates are significantly higher among African-Americans. What are the political and economic conditions which lead to these differences in well-being across and within nations? What are the relationships between health and macroeconomic "ills" such as poverty, unemployment, recession, foreign debt, environmental degradation, and socio-economic inequalities between nations, genders, and races? How does globalization affect women and men in different parts of the world? In this course, we will try to answer these and other questions as we analyze the relationships between health and political and economic conditions world populations face today. We will also discuss alternative national and international policies that aim at promoting health in a globalized world.	Ebru Kongar
ENGL	212	**Writing About Food**	*SCON*	Food has always been an index of culture and a medium of expression: "Tell me what you eat," wrote Brillat-Savarin in The Physiology of Taste, "and I will tell you what you are." But how best to tell? This course will examine examples of food writing in order to learn the craft of successful nonfiction in a range of modes, including reportage, argument, and personal essay. In this course, we will examine the way we treat, eat, cook, and think about food in order to understand better the condition of our world and the shape of our personal histories. At the same time, we will examine how to develop, research, draft, and revise a successful essay in order to hone our writing about food or any topic.	Shioba
ENST	111	**Environment, Culture and Values**	*SINV*	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

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ENST	130	**Introduction to Environmental Science and Environmental Studies**	*SINV*	This course is an integrated and interdisciplinary introduction to the study of environmental science and environmental studies. The course will apply social and natural science principles to examine how the world works and how societies deal with environmental problems at local, national and global levels. The first part of the course will examine renewable and non-renewable resources (forests, water, land, food, minerals, and energy) and associated problems of overuse and overexploitation. In particular, we will explore world food problem and our growing energy needs. The second part of the course will, then, discuss environmental pollution (water, air, solid and hazardous waste) and its causes. We will look specifically at the consequences for human health and ecological systems as well as measures to reduce and regulate pollution. In the final part of the course, we will focus our attention to transforming unsustainable human practices to sustainable development. Topics such as population growth, climate change, resource conservation, pollution prevention and consumerism will be discussed along with sets of strategies designed to ensure that societies can fairly, justly and equitably meet the needs of its people today and for future generations.	Michael Beevers
ENST	132	**Foundations of Environmental Science**	*SINV*	An integrated, interdisciplinary study of environmental disruption and management. Emphasis will be on the study of energy procurement, waste management, and human environmental health. Field study includes travel to industrial, mining, and agribusiness sites. Laboratory work includes using federal databases for documentation of toxic releases and human health effects and the generation, measurement, and use of renewable energy resources. This course is designed for students with a special interest in Environmental Studies and will focus on quantitative and qualitative methods for environmental analysis and critical thinking in preparation for future study.	Greg Howard
ENST	205	**Global Environmental History**	*SINV*	Examines the interaction between humans and the natural environment in long-term global context. Explores the problem of sustainable human uses of world environments in various societies from prehistory to the present. Also serves as an introduction to the subfield of environmental history, which integrates evidence from various scientific disciplines with traditional documentary and oral sources. Topics include: environmental effects of human occupation, the origins of agriculture, colonial encounters, industrial revolution, water and politics, natural resource frontiers, and diverse perceptions of nature. Cross-listed as ENST 205 and HIST 205.	Emily Pawley
ENST	214	**Ecological Anthropology**	*SINV*	An examination of human adaption to changing environments with an emphasis on systems analysis. Special attention to development and current environmental problems. This course is cross-listed as ANTH 214-01 and ENST 214-01.	Kjell Enge
ENST	215	**Jewish Environmental Ethics**	*SINV*	Since the 1960's many writers on environmental issues have blamed our contemporary enviornmental crises in part on a so-called "Judeo-Christian" worldview, rooted in the Hebrew Bible. Such writers assert that the biblical heritage shared by these two religious traditions, advocates an unhealthy relationship between humanity and nature, one in which human beings are destined to conquer the earth and master it. In this course we will explore Jewish perspectives on nature and the natural world through close readings of biblical and other classical Jewish theology, history and ritual practice, we will also examine the ways in which this motif is re-conceptualized in modern secular contexts (ie, Zionism, and the kibbutz movement). We will conclude by studying contemporary varieties of Jewish environmental advocacy. In addition to texts focused specifically on Judeo-Christian traditions, the syllabus will include other classic works of Environmental ethics foundational to the field of Environmentla studies. Cross-listed as ENST 215-01 and JDST 215-01.	Andrea Lieber
ENST	218	**Geographic Information Systems**	*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, anaylsis, output and presentation. The course will culminate in a final, independent project in which the students design and perepare a GIS analysis application of their own choosing. Cross listed as ARCH 218-01, ENST 218-01, and ERSC 218-01.	Kristen Brubaker
ENST	222	**Environmental Economics**	*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 222-01 and ENST 222-01.	Sebastian Berger
ENST	310	**Research Methods**	*SCON*	An intermediate-level overview of research methods and tools in the environmental sciences, with emphasis on numerical, computer, and field skills. Contents will include quantitative reasoning; study design principles; data collection in the field; data management; analysis of data incuding summary statistics and regression; graphical presentation of data; library and journal research skills; and writing for both scientific and lay audiences. These skills will be learned by applying them to several discrete environmental research projects.	Greg Howard & Candie Wilderman
ENST	311	**Politics of Environmental Protection in Asia**	*SINV*	This seminar takes a close look at the political, social, cultural, and legal issues that affect environmental protection in Asia. Focusing attention on China, Japan, India and Taiwan, and by drawing upon scholarly literature in political science, sociology, anthropology, law, and history, the course aims to provide students with a multidisciplinary understanding of the myriad factors which shape the content of environmental legislation and policies and how these are implemented in society. Does China's authoritarian system give environmental laws more "bite"? What roles do NGOs play in Asia? Does Confucianism, Shintoism or Hinduism make people more or less inclined to protect the environment? How do Asians deal with the impact of rapid economic growth? In short, we will try to understand the complex interaction between political, legal, and social dimensions of environmental protection in a region that is home to half of the world's population and three of the world's current and future economic powerhouses. Cross listed as EASN 306-01, ENST 311-04 and POSC 390-04	Neil Diamant

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ENST	311	**Social Justice: Sustainability and Human Rights**	*SINV*	History "is a crab scuttling sideways, a drip of soft water wearing away stone, an earthquake breaking centuries of tension." (Solnit, Rebecca, Hope in the Dark, 2004). This course will examine the importance of the environmental movement and broader definitions of sustainability. We will explore examples of direct action, of serendipitous change, and of world-changing events that have moved us more clearly toward an understanding of "our" shared future on this planet. We will survey the issues connected to sustainable systems and will focus more specifically on issues related to food, water and energy. Through readings, film, and experiential activities the course will challenge us to analyze the impact of various actors and assess our own responsibility. Cross-listed as ENST 311-03 and SOCI 230-05.	Joyce Bylander
ENST	311	**Communism & the Environment**	*SINV*	This course will focus on the history of Communism and the environment. As such, it will explore environmental issues and policies in the Soviet Union, China and Cuba. However, the course will also spend time on other related issues such as ideology, political philosophy and the environment; the transition to democracy in Eastern Europe and the relationship to the environment; and environmental politics and practices in the United States, today. What are the differences between capitalism and communism, or between liberal-democracies and communist authoritarianism, vis-à-vis the environment? What accounts for the profound environmental disasters under communist rule? Do communist systems allow for opportunities to solve environmental issues that might be unavailable to parliamentary democracies? What did Marx himself say about the environment and humanity's relationship to nature? Why is the environment, today, viewed as a "left-wing" cause? These are some of the questions we will try to address in this course. Cross-listed as ENST 311-02 and HIST 315-03.	Wilson Bell
ENST	318	**Advanced Applications in GIS**	*SCON*	The course is intended as a continuation of the introductory course on Geographic Information Systems, ENST 218, and will concentrate on more advanced discussions and techniques related to spatial analysis and GIS project design. The main focus of the course will be on using higher-level GIS methods to investigate and analyze spatial problems of varying complexity; however, the specific project and topical applications will vary depending on student interests. Students will be required to develop and complete an individual spatial analysis project that incorporates advanced GIS techniques. Cross listed as ARCH 318-01, ENST 318-01 and ERSC 318-01.	James Ciarrocca
ENST	406	**Senior Seminar: March to Extinction, the Impact of Climate Change on Biodiversity**	*SINV*	In this senior seminar, students and faculty will examine principles of evolution, historical patterns of natural extinction, the current extent of the Holocene/Anthropocene extinction, and evidence concerning the impact of recent climate change on biodiversity, both present and future. We will study proposed designs for enhancing mitigation and adaptation strategies and for protecting and restoring ecosystem resilience. The impact on human communities and livelihoods will be discussed within the larger context of why it matters. In addition to reading the literature and hosting guest speakers, students will each choose a case study to explore in depth through literature and primary research. Students will be responsible for sharing the results of their research in extended presentations which will include their own customized reading assignments and enhancement exercises.	Candie Wilderman
ERSC	141	**Planet Earth**	*SCON*	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.	Mitch Scharman
ERSC	142	**Earth History**	*SCON*	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 Neimitz and Ben Edwards
ERSC	218	**Geographic Information Systems**	*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, anaylsis, output and presentation. The course will culminate in a final, independent project in which the students design and perepare a GIS analysis application of their own choosing. Cross listed as ARCH 218-01, ENST 218-01, and ERSC 218-01.	Kristen Brubaker
ERSC	311	**Vulnerability to Global Change in the Mediterranean and North Africa**	*SINV*	This course covers economic effects and environmental consequences of global change in the Mediterranean and North African region. Cross-listed as ERSC 311-01 and MEST 200-06.	Maria Snoussi

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ERSC	318	**Advanced Applications in GIS**	*SCON*	The course is intended as a continuation of the introductory course on Geographic Information Systems, ENST 218, and will concentrate on more advanced discussions and techniques related to spatial analysis and GIS project design. The main focus of the course will be on using higher-level GIS methods to investigate and analyze spatial problems of varying complexity; however, the specific project and topical applications will vary depending on student interests. Students will be required to develop and complete an individual spatial analysis project that incorporates advanced GIS techniques. Cross listed as ARCH 318-01, ENST 318-01 and ERSC 318-01.	James Ciarrocca
ERSC	331	**Chemistry of Earth Systems**	*SINV*	An introduction to the origin, distribution, and behavior of elements in the geochemical cycles and processes of the atmosphere, hydrosphere, and lithosphere. Topics include the chemistry of magma, hydrothermal fluids, weathering, fresh and ocean waters, sediment digenesis, hydrocarbons, and metamorphism. Includes radiometric dating and stable isotope applications. Lab will focus on sampling, instrumental analysis, and data interpretation of earth materials. May be counted toward a chemistry major.	Jeff Niemitz
FREN	220	**Toulouse Summer Immersion**	*SINV*	French 220 is an intensive language and civilization course designed to increase oral proficiency, improve written expression, and develop cross-cultural observation skills through immersion in the Toulouse region. Social and cultural phenomena will be studied through interaction with French families, directed observation at a variety of sites, participation in class activities, and tutorials. The exclusive use of French during the five-week immersion is expected of all students. Designed as a content-based and writing intensive course, FR 220 emphasizes the teaching of language through a unified subject matter. This approach allows students to benefit from maximum exposure to the French language while they build their content knowledge of the French-speaking world through the study of a specific topic. This summer, students will focus on topics and issues related to the sustainable development in France, for which they will develop a study-abroad portfolio.	Lucille Dupperon
FREN	364	**Literature to the Rescue: The Case of Haiti**	*SCON*	This course will focus on major historical events in Haiti, namely the Revolution, the Duvalier Dictatorship, and the 2010 Earthquake, to illustrate the role of literature in healing, surviving, and remembering such events. We will examine several forms of fiction and non-fiction texts, such as chronicles, testimonies, edited volumes, excerpts of novels, and films. The aim of this course is to highlight the intricate connections between the humanities and what constitutes humanitarian work. How does literature act as a relief/healing effort? In connection with the Haitian Revolution, we will examine how Haitians managed the plantations (their environment) once the nation became independent. Similarly, we will investigate the role played by inadequate infrastructures in the deadly earthquake of 2010. In this class, we will also draw a parallel between the trauma that surrounds the generation who lived through the dictatorship, and the trauma caused by the earthquake.	Linda Brindeau
HIST	205	**Global Environmental History**	*SINV*	Examines the interaction between humans and the natural environment in long-term global context. Explores the problem of sustainable human uses of world environments in various societies from prehistory to the present. Also serves as an introduction to the subfield of environmental history, which integrates evidence from various scientific disciplines with traditional documentary and oral sources. Topics include: environmental effects of human occupation, the origins of agriculture, colonial encounters, industrial revolution, water and politics, natural resource frontiers, and diverse perceptions of nature. Cross-listed as ENST 205 and HIST 205.	Emily Pawley
HIST	215	**Six East Asian Cities**	*SCON*	East Asian Cities have been deeply involved with East Asian and global history as the capitals of empires and nations, colonial outposts, and commercial, industrial and cultural centers. We will profile six important East Asian cities: Ho Chi Minh City, Hong Kong, Shanghai, Tokyo, Beijing, and Seoul. We will examine their common and separate histories and the roles they play in contemporary Vietnamese, Chinese, Japanese and Korean affairs, the East Asian region, and the world. Cross-listed as EASN 206-01 and HIST 215-01.	David Strand
HIST	315	**History of the Modern Gulf**	*SCON*	This course provides an overview of modern Gulf history from the 1700s to the present. The focus will be on Saudi Arabia, Kuwait, Bahrain, Qatar, the United Arab Emirates, and Oman, with some attention to relevant developments in Iraq and Iran.	David Commins
HIST	315	**Communism & the Environment**	*SINV*	This course will focus on the history of Communism and the environment. As such, it will explore environmental issues and policies in the Soviet Union, China and Cuba. However, the course will also spend time on other related issues such as ideology, political philosophy and the environment; the transition to democracy in Eastern Europe and the relationship to the environment; and environmental politics and practices in the United States, today. What are the differences between capitalism and communism, or between liberal-democracies and communist authoritarianism, vis-à-vis the environment? What accounts for the profound environmental disasters under communist rule? Do communist systems allow for opportunities to solve environmental issues that might be unavailable to parliamentary democracies? What did Marx himself say about the environment and humanity's relationship to nature? Why is the environment, today, viewed as a "left-wing" cause? These are some of the questions we will try to address in this course. Cross-listed as ENST 311-02 and HIST 315-03.	Wilson Bell
IBMN	200	**Global Economy**	*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 INST 200-01 and INBM 200-01.	Michael Fratantuono

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INBM	300	**Globalization, Sustainability and Security: China**	*SINV*	The course will first consider general ideas associated with sustainability. Second, it will examine the development path that has been pursued by the Chinese leadership over the past two decades--in particular, the path associated with China's rise as part of the globalization process. Third, it explore the challenges to China's leadership that rise due to the internal economic, social, and environmental strains of the development process, asking if those strains may ultimately undermine the process. Finally, the course will examine the national security strategy that has been formulated by China's leadership, and the policies that the leadership are pursuing in light of that strategy, including recent efforts to secure renewable and non-renewable resources from the rest of the world.	Michael Fratantuono
IBMN	400	**Seminar in International Business Policy and Strategy**	*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.	Helen Tackas
INST	170	**International Relations**	*SCON*	An introduction to global politics which examines the interaction of states, international organizations, non-governmental organizations, and individuals in the world arena. Topics covered include traditional concerns such as war, balance of power, the UN and international law along with the more recent additions to the agenda of world politics such as international terrorism, human rights, and economic globalization. Cross-listed as INST 170-02 and POSC 170-02.	Russ Bova
INST	200	**Global Economy**	*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 INST 200-01 and INBM 200-01.	Michael Fratantuono
ITAL	400	**Reclaiming Landscape**	*SINV*	What is a landscape? How does it contribute to the formation of our collective and individual identities? What is happening to the diverse landscapes of the past in a globalized world where every place looks increasingly the same? What can we learn about landscape from literature and the arts? We will try to answer these and other related questions by comparing theories that approach the subject from different perspectives. Students will develop their own research projects in the light of the theories discussed in class and apply them to various aspects of Italian culture, including literature, art history, regional and urban planning and others.	Tullio Pagano
JDST	215	**Jewish Environmental Ethics**	*SINV*	Since the 1960's many writers on environmental issues have blamed our contemporary enviornmental crises in part on a so-called "Judeo-Christian" worldview, rooted in the Hebrew Bible. Such writers assert that the biblical heritage shared by these two religious traditions, advocates an unhealthy relationship between humanity and nature, one in which human beings are destined to conquer the earth and master it. In this course we will explore Jewish perspectives on nature and the natural world through close readings of biblical and other classical Jewish theology, history and ritual practice, we will also examine the ways in which this motif is re-conceptualized in modern secular contexts (ie, Zionism, and the kibbutz movement). We will conclude by studying contemporary varieties of Jewish environmental advocacy. In addition to texts focused specifically on Judeo-Christian traditions, the syllabus will include other classic works of Environmental ethics foundational to the field of Environmentla studies. Cross-listed as ENST 215-01 and JDST 215-01.	Andrea Lieber
MEST	200	**Vulnerability to Global Change in the Mediterranean and North Africa**	*SINV*	This course covers economic effects and environmental consequences of global change in the Mediterranean and North African region. Cross-listed as ERSC 311-01 and MEST 200-06.	Maria Snoussi
POSC	170	**International Relations**	*SCON*	An introduction to global politics which examines the interaction of states, international organizations, non-governmental organizations, and individuals in the world arena. Topics covered include traditional concerns such as war, balance of power, the UN and international law along with the more recent additions to the agenda of world politics such as international terrorism, human rights, and economic globalization. Cross-listed as INST 170-02 and POSC 170-02.	Russ Bova
POSC	290	**Marginalization and Representation**	*SCON*	This course explores the political representation of groups that have historically been marginalized in American society and excluded form the democratic process either through statute or through common practice. In particular, issues of racism, sexism, classism and homophobia will be addressed.	Vanessa Tyson
POSC	390	**Politics of Environmental Protection in Asia**	*SINV*	This seminar takes a close look at the political, social, cultural, and legal issues that affect environmental protection in Asia. Focusing attention on China, Japan, India and Taiwan, and by drawing upon scholarly literature in political science, sociology, anthropology, law, and history, the course aims to provide students with a multidisciplinary understanding of the myriad factors which shape the content of environmental legislation and policies and how these are implemented in society. Does China's authoritarian system give environmental laws more "bite"? What roles do NGOs play in Asia? Does Confucianism, Shintoism or Hinduism make people more or less inclined to protect the environment? How do Asians deal with the impact of rapid economic growth? In short, we will try to understand the complex interaction between political, legal, and social dimensions of environmental protection in a region that is home to half of the world's population and three of the world's current and future economic powerhouses. Cross listed as EASN 306-01, ENST 311-04 and POSC 390-04	Neil Diamant

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PSYC	140	**Social Psychology**	*SCON*	In this introduction to psychological aspects of human social behavior, we discuss such topics as the relationship between attitudes and behavior, how people judge one another, interpersonal and group influence processes, and relations between individuals and groups, with strong emphasis on real-world applications. We also introduce scientific methods and formal theories for studying social behavior.	Andy Skelton
PSYC	175	**Introduction to Community Psychology**	*SCON*	This course will provide an introduction to the field of community psychology--a field that focuses on persons-in-context and the ways that social issues, institutions, and setting impact individuals' mental health and wellbeing. In the course, we will: (a) review the historical underpinnings of community psychology; (b) examine the field's major tenets and theories, including its emphasis on understanding the role of the environment in human behavior; (c) explore the field's application to a range of clinical and social issues; and (d) emulate the field's commitment to the promotion of social change through research and action.	Sharon Kingston
PSYC	440	**Social Psychology & Sustainability Seminar**	*SINV*	Explores theories of environmentally-relevant behavior and techniques to increase sustainable behavior. Nonmajors may request permission of instructor.	Andy Skelton
SOCI	230	**Social Justice: Sustainability and Human Rights**	*SINV*	History "is a crab scuttling sideways, a drip of soft water wearing away stone, an earthquake breaking centuries of tension." (Solnit, Rebecca, Hope in the Dark, 2004). This course will examine the importance of the environmental movement and broader definitions of sustainability. We will explore examples of direct action, of serendipitous change, and of world-changing events that have moved us more clearly toward an understanding of "our" shared future on this planet. We will survey the issues connected to sustainable systems and will focus more specifically on issues related to food, water and energy. Through readings, film, and experiential activities the course will challenge us to analyze the impact of various actors and assess our own responsibility. Cross-listed as ENST 311-03 and SOCI 230-05.	Joyce Bylander
SOCI	230	**Cuba: Economic, Environmental and Social Sustainability and Resliency**	*SINV*	At the beginning of the 21st century, Cuba, a small (however the biggest) island nation in the Caribbean, with a population of 11 million, is facing major challenges as it attempts to carry on and further develop its unique brand of 21st Century socialism. This globally integrated course is a co-taught economics and sociology course that focuses broadly on the questions of sustainabilty from economic, environmental, political, cultural and social perspectives. It examines contemporary economic and social conditions and policies, international relations, and the ramifications of the Cuban revolution of 1959. Special attention will be given to urban agriculture as well as to social policy related to health, education, family, youth, gender and sexuality. In order to deepen our understanding of Cuba's economy, society, and culture today, we will integrate a 10-day study tour of Cuba over spring break. Application due to OGE by September 21. Cross listed as ECON 214-01 and SOCI 230-06.	Rose, S. and Koont, S.
WGST	202	**Ecofeminism**	*SINV*	Ecofeminism analyzes how historical and contemporary inequalities devalue and oppress both 'women' and 'nature', leading to the oppression and denigration of both. The course adopts a theoretical, historical, and scientific perspective to explore the ways that, in Western society, women are treated as inferior to men, 'nature' is treated as inferior to 'culture', and humans/men are understood as being separate from, and often superior to, the natural environment/women. Through a lens that acknowledges the connections between and among sexism, racism, class exploitation, and environmental destruction, the class will explore and undermine many of the common conceptions that balance technology, culture, progress, innovation, and might against the traditionally feminine, tradition, sustainability, and community innovation. Students will explore themes of division in their own lives and cultures, examine the shift from egalitarian societies (characterized by partnership and Goddess worship) to patriarchal societies (characterized by the domination of women and of nature), and apply an ecofeminist lens to climate adaptation disparities, public health, environmental paradigms, and the media.	Susannah Bartlow