

2013/2014		Sustainability Course Inventory			
Department	Course Number	Course Title	Sustainability Courses	Courses that include sustainability	Course Description
	TOTAL:	106	59	47	
	INTRODUCTORY				
URBS	100	Introduction to Urban Studies		X	As an introduction to urban inquiry, this course focuses on the historical evolution of cities, socio-spatial conflicts, and changing cultural meanings of urbanism. We examine the formation of urban hierarchies of power and privilege, along with their attendant contradictions and social movements of contestation, in terms of the rights to the city and the prospects for inclusive, participatory governance.
ESCI	101	Geohazards (1/2)		X	Geohazards explores the geological and societal causes of death and destruction by earthquakes, landslides, floods, volcanoes, storms, and avalanches around the world. Students explore basic earth processes and learn how the Earth and its inhabitants interact in dangerous ways because people repeatedly fail to appreciate Earth's power.
ENGL	101	The Art of Reading and Writing (1)		X	This course will adopt an interdisciplinary Environmental Studies approach to literature written in or about the Hudson River Valley. Art, music, photography, history, geography and ecology will inform our readings, which will be drawn from the works of classic authors such as Washington Irving, James Fenimore Cooper, Walt Whitman, John Burroughs, and Edith Wharton, as well as contemporary writers such as T. C. Boyle, John Ashbery, Nancy Willard and graphic novelist Mark Siegel.
GEOG	102	Global Geography: People, Places, and Regions (1)	X		In this course we study the making of the modern world at different scales, ranging from the local to the global—through case studies drawn from the Hudson Valley and around the world—with an emphasis on the ways people, places, and regions relate to socio-economic inequalities. In addition to learning about specific places and regions, we focus on major themes and debates in geography, including mapping and cartographic communication, culture and landscape modification, population and sustainable development, agriculture and urbanization, and political divisions of the globe.
ESCI	121	Oceanography (1)		X	The world's oceans make life on Earth possible. By studying the interactions among atmosphere, water, sediment, and the deep inner-workings of the earth, we gain an understanding of where the earth has been, where it is now, and where it is likely to go. Topics include: historical perspectives on the revolutionary discoveries in marine exploration; seafloor and ocean physiochemical structure; air-sea interactions from daily and seasonal weather patterns to climate change and El Niño cycles; earthquakes and tsunamis; waves and coastal processes; and critical biologic communities unique to the marine environment.
ESCI	135	Volcanoes and Civilization (1)		X	Through accounts of volcanic events, such as Plato's account of the legend of Atlantis, recent scientific analysis of the eruption of Vesuvius and the destruction of Pompeii, or news media coverage of current eruptions, this course studies the role volcanoes have played in society as it traces the historical development of volcanological study using sources such as classical literature, nineteenth century treatises in natural science, modern scientific journals, and the popular media.
STS	138	Energy: Sources and Policies (1/2)	X		A multidisciplinary introduction to the principal sources of energy currently being used in the United States and the economic, political, and environmental choices they entail. The two largest energy sectors, electrical generating and transportation, are the main focus for the course, but emerging technologies such as wind power and hydrogen are also examined.
SOCI	151	Introductory Sociology (1)		X	Topic Two: The flavor of this class will come from the impact of the classical debates on the current discourse of sociology, specifically debates on social problems and interpretations of our everyday life. Our special focus will be the challenges of food production and consumption in the 21st century. Topic Three: The flow of this class will be from the impact of the classical debates on the current discourse of sociology, specifically the debate on social problems and the interpretations of our everyday life. Our special focus will be the challenges of water consumption and distribution in the 21st century. Topic Eight: This course aims to introduce you to a sociological perspective through an exploration of social justice. Sociology has a long tradition of commitment to social justice issues and we will consider a wide variety of them including: issues of power, how social advantages and disadvantages are distributed, the relationship between social location and inequality, and the practice of reducing the gap between them at the local, national, and global levels.
SOCI	160	What do you Mean by Globalization? (1)	X		This course examines the multiple voices and actors that make up conversations and processes we refer to as "globalization." How can we make sense of globalization? Can globalization as a framework help us make sense of the social world?
BIOL	175	Plants and Plant Communities of the Hudson Valley (1/2)		X	In this course, you learn how to observe and describe variation in plant form so you can recognize locally common plant species and determine their scientific names. You also learn to recognize the characteristic plant communities of the Hudson Valley.
ESCI	198	Special Projects in Earth Science (1/2 or 1)		X	Execution and analysis of field, laboratory, or library study. Project to be arranged with individual instructor.

ESCI	100a	Earth Resource Challenges (1)	X		With the explosive urbanization of the modern world, new and unprecedented demands are placed on the earth's hydrological systems. A variety of environmental issues-such as water provision and drought, depletion of aquifers, pollution of watersheds, flooding, regional climate change, privatization of supply and other policy questions-arise out of the insatiable demand for water by contemporary metropolitan regions. This course combines geographical and geological perspectives on the increasingly urgent problems of urban water. Consideration is given to case studies of water problems in the New York metropolitan region, cities and suburbs of the arid U.S. Southwest, and Latin American mega-cities such as Mexico City and Rio de Janeiro.
ESCI	107a	Field Geology of the Hudson Valley (1/2)		X	Experience 1.5 billion years of Hudson Valley geologic history from some of the classic vantage points in the region. Field trips to high points such as Breakneck Ridge, Brace Mountain, Bonticou Crag, and Overlook Mountain are supplemented by lectures and readings on the geologic history and the history of geologic studies in the valley.
ENST	107b	Global Change and Sustainability (1)	X		This class offers an interdisciplinary introduction to the climate, ecosystem and sustainability principles needed to understand human impact on the natural environment. We discuss the issue of global change prediction and the scientific basis for global change assessments and policy measures. Key topics are the physical climate system and its variability, the carbon cycle and related ecosystem processes, land use issues, nutrient cycles, and the impact of global change on society.
ESCI/GEOG	111a	Earth Science and Environmental Justice (1)	X		Exploration of the roles that race, gender, and class play in contemporary environmental issues and the geology that underlies them. Examination of the power of governments, corporations and science to influence the physical and human environment. We critique the traditional environmental movement, study cases of environmental racism, and appreciate how basic geological knowledge can assist communities in creating healthful surroundings.
STS/CHEM	124b	The Culture and Chemistry of Cuisine (1)		X	This course develops the basic chemistry, biochemistry and microbiology of food preparation; explores the biochemical basis of certain nutritional practices; covers social and political aspects of foods throughout world history. It covers controversies like genetically modified organisms, the production of high-fructose corn syrup, and the historic role of food commodities such as salt, rum, and cod in the world economy.
ENST	124b	Essentials of Environmental Science (1)	X		This course treats the following topics: energy sources and waste products, atmospheric patterns and climate, biogeochemical cycles, properties of soils and water, and ecological processes. Using these topics as a platform, this course examines the impact humanity has on the environment and discusses strategies to diminish those effects.
ENST	125a	Environmentalisms in Perspective (1)	X		This multidisciplinary course examines significant approaches to the theory and practice of environmentalisms past and present. Students explore possible connections between the ethical, aesthetic, social, economic, historical, and scientific concerns that comprise environmental studies.
ESCI/GEOG	151a	Earth, Environment, and Humanity (1)	X		This course explores three intertwined questions: 1) How do Earth's different systems (lithosphere, hydrosphere, atmosphere, biosphere) function and interact to create the environment we live in? 2) What are the causes of, and how can we protect ourselves from, geologic hazards such as earthquakes, flooding, and landslides? 3) How are human activities modifying the environment through changes to the composition of the atmosphere, biogeochemical cycles, and soil erosion, among other factors? While serving as an introduction to the Earth Science major, this course emphasizes those aspects of the science that everyone should know to make informed decisions such as where and where not to buy a house, whether to support the construction of an underground nuclear waste repository, and how to live more lightly upon the Earth.
POLI/ENST	177a	Environmental Political Thought (1/2)	X		The emerging awareness of ecological problems in the past half-century has led to a questioning and rethinking of some important political ideas. What theories can describe an ecologically-sound human relation to nature; what policies derive from those theories; and how do they value nature? What is the appropriate size of political units? What model of citizenship best addresses environmental issues?
POLI/ENST	178b	Political Theory, Environmental Justice: The Case of New Orleans After Katrina (1/2)	X		Hurricane Katrina flooded much of New Orleans, causing intense social and political problems within the city and testing the ability of citizens and governments to respond to the crisis. The course aims to interpret and evaluate those responses by reading past political theorists, such as Aristotle, Hobbes, and DuBois, and current evaluations, such as those based in concerns for environmental justice.
INTERMEDIATE					
ESCI	211	Sediments, Strata, and the Environment (1)		X	The stratigraphic record provides the most comprehensive record of Earth history available. This course explores fundamental concepts of stratigraphy, sedimentation, and paleontology with a focus on reconstructing paleoenvironments and paleoecology. The chemical and physical processes leading to weathering, erosion, transport, deposition, and lithification of sediments are considered, as is fossil identification. The course revolves around detailed field interpretation of local Paleozoic and Holocene sediments to reconstruct Hudson Valley paleoenvironments.
URBS	213	Urban Planning and Practice (1)		X	An introduction to planning and practice. Course examines successful and unsuccessful cases of urban and regional planning events, compares and evaluates current growth management techniques, and explores a wide variety of planning methods and standards. Topics include citizen participation, goal setting, state and local land use management approaches, environmental protection measures, affordable housing strategies, transportation, and urban design.

ASIA/SOCI	216	Food, Culture, and Globalization (1)	X		This course focuses on the political economy and the cultural politics of transnational production, distribution, and consumption of food in the world to understand the complex nature of cultural globalization and its effects on the national, ethnic, and class identities of women and men.
URBS/INTS	222	Urban Political Economy (1)		X	This course employs the multidisciplinary lens of political economy to analyze economic development, social inequality, and political conflict in contemporary cities. Why do people and resources tend to concentrate in cities? How does the urban landscape promote and constrain political conflict and distribute economic and social rewards? How are local outcomes influenced by global political-economic forces? The course develops an analytical framework to make sense of a variety of urban complexities, including poverty, segregation, suburban sprawl, the provision of affordable housing, global migration, and the effects of neoliberalism on rich and poor cities throughout the world.
URBS	230	Making Cities (1)		X	This course surveys the production of urban space, from the mid 19th century industrial city to today's post-bubble metropolis. Theories of urban planning and design, landscape architecture, infrastructure and real estate development are discussed in the context of a broad range of social, cultural, political and economic forces that have shaped urban space.
ESCI/GEOG	231	Geomorphology: Surface Processes and Evolution of Landforms (1)		X	Quantitative study of the physical, chemical, and biological processes that create Earth's many landforms. Topics include weathering and erosion, landsliding and debris flows, sediment transport by rivers and glaciers, the role of climate in landscape modification, and the use of landforms to document earthquake hazards. Lab exercises emphasize fundamental skills in geomorphologic analysis such as mapping, surveying, interpretation of aerial photography, and use of Geographic Information Systems software.
URBS/SOCI	237	Community Development (1)		X	
ESCI	251	Global Geophysics and Tectonics (1)		X	What can physics and simple math tell us about the earth? By utilizing an array of techniques, geophysicists gain an understanding of the processes that shape our planet. Reflection and earthquake seismology give us insight into deep earth structure, plate tectonic mechanisms, mountain building, basin formation, and hazard mitigation. Variations in the earth's gravitational field yield information on density contrasts beneath the surface, from the scale of mountain ranges to buried artifacts. Heat flow variations are useful in determining regional subsurface thermal structure, fluid advection, and climate variation. Laboratories are designed to use the skills required in most geology related fields. They involve the use of Geographic Information System (GIS) software, and construction of simple computer models.
GEOG/URBS/INTS	252	Cities of the Global South: Urbanization and Social Change in the Developing World (1)	X		This course examines postcolonial urbanism, global-city and ordinary-city theories, informal settlements and slums, social and environmental justice, and urban design, planning, and governance. We study scholarly, journalistic, and film depictions of Mexico City and Rio de Janeiro in Latin America; Algiers and Lagos in Africa; Cairo and Istanbul in the Middle East; and Beijing and Mumbai in Asia.
BIOL/ESCI/ENST/GEOG	254	Environmental Science in the Field (1)	X		The environment consists of complex and often elegant interactions between various constituents so that an interdisciplinary approach is required to understand how human interactions may affect it. In this course, we study a variety of aspects of a specific environment by considering how biological, chemical, geological, and human factors interact. We observe these interactions first hand during a weeklong field trip.
GEOG	256	Geographies of Food and Farming (1)	X		In this course, we focus first on the physical environmental factors (including water resources, climate patterns, and biodiversity) that characterize agricultural regions of North America. As part of this discussion, we consider ethical, political, and cultural aspects of food production. We then use these frameworks to examine global production and exchanges of food. We use case studies, such as land conversion in Brazil and Indonesia, to understand prominent debates about food and farming today.
GEOG/URBS	258	Sustainable Landscapes: Bridging Place and Environment (1)	X		In this course we begin by examining regional and local histories of landscape design and their relationship to concepts of place, territory, and identity. We then consider landscape ecological approaches to marrying aesthetic and environmental priorities in landscapes. We investigate local issues such as watershed quality, native plantings, and runoff management in order to consider creative ways to bridge these once-contrary approaches to understanding the landscapes we occupy.
ENST	260	Issues in Environmental Studies (1)	X		The purpose of this course is to examine in depth an issue, problem, or set of issues and problems in environmental studies, to explore the various ways in which environmental issues are embedded in multiple contexts and may be understood from multiple perspectives.
ENST/SOCI/INTL	261	"The Nuclear Cage": Environmental Theory and Nuclear Power (1)	X		The central aim of this course is to explore debates about the interaction between beings, including humans, animals, plants, and the earth within the context of advanced capitalism by concentrating on the production, distribution, consumption, and disposal of nuclear power. The first question concerning the class is how does Environmental Theory approach nuclear power and its impact on the environment. The second question deals with how this construction interacts with other forms of debate regarding nuclear power, especially concentrating on the relation between science, market and the state in dealing with nature, and how citizens formulate and articulate their understanding of nuclear power through social movements.

ESCI	269	The Geophysics of Slavery and Freedom (1)		X	Working with local community groups, this project-based field course examines the history of African Americans in Dutchess County by uncovering forgotten graveyards from the 18th and 19th centuries. We use geophysical surveying of graveyards with social history to give students hands-on experience in original research, data analysis, and public presentation. During the course of the semester, the class uses both field geophysics and historical archives to map lost gravesites and to understand the historical and social context of these communities. Students gain fieldwork experience at the gravesite using high-tech tools including an electrical resistivity meter, a cesium vapor magnetometer, and a ground penetrating radar, in concert with visiting local archives to analyze primary documents including census records, deeds, newspapers and journals as well as church records.
ESCI	271	Structural Geology: Deformation of the Earth (1)		X	Structural geology explores the deformation of Earth's crust caused by the movement of its tectonic plates and the resulting structures that are produced at scales ranging from the microscopic to the mountainous. It underpins the oil and gas industry and mining because fossil fuels and precious metals are commonly associated with folds and faults. It is also important in earthquake and landslide hazard prediction. Lab exercises emphasize the fundamentals of geologic mapping, how to use geometric principles to predict what lies in the subsurface from surface observations, and how rocks behave under varying conditions of stress.
GEOG/INTS	276	Economic Geography: Spaces of Global Capitalism (1)	X		This course analyzes the shifting economic landscape of globalization. It covers classic location theories in economic geography, but also the recent trends of industrial reorganization in agriculture, manufacturing and services. Two areas of focus in this course are the globalization of the world economy and regional development under the first and third world contexts. We analyze the emergence of the global capitalist system, the commodification of nature, the transformation of agriculture, the global spread of manufacturing and the rise of flexible production systems, and restructuring of transnational corporations and its regional impacts.
ESCI	277	Biogeochemistry (1)	X		This course focuses on the biological influences on important geochemical transformations, and how biological systems, underlain by different geologies, affect measurable chemical attributes important to life. The course also covers human influences on biogeochemical cycles. Impacts addressed include the effects of atmospheric deposition (pollution), changes in land use history and how climate change influences biogeochemistry.
AMST/HIST	283	US Consumer Culture		X	This course examines the rise of consumer culture in twentieth century America. This culture has flourished, in part, because consumer capitalism has continuously transformed everyday wants into needs. We explore how the growth of mass production, advertising, department stores, shopping malls, modern technologies, and imperialism have shaped the nation's desire for goods and pleasure. Americans' relationships with these commodities and services reveal how people have come to understand themselves as consumers (staking claims to the ability to consume as a function of citizenship) and how consumption has shaped their lives (where they have defined themselves by what they buy).
ESCI	297	Readings in Earth Science (1/2)	X		Deep time, the concept of geologic time recognized by Persian polymath Avicenna (Ibn Sina) and Chinese naturalist Shen Kuo in the 11th century and developed further by James Hutton during the 18th century Scottish Enlightenment, has been called the single greatest contribution of geology to science. The concept provides a critical link between earth science and environmental change. Using reading and reflection, the aim of this course is to help students develop a feeling for the enormity of Earth's duration in relation to human life spans. Students contemplate the nature of time from geoscientific, religious, and literary perspectives. Reading works by Loren C. Eiseley, Mircea Eliade, Malcolm Gladwell, Stephen Jay Gould, Abraham Joshua Heschel, Shunryu Suzuki, and Elie Wiesel, among others, we consider subjects such as the two great metaphors of time, arrows and cycles, in relation to natural and anthropogenic environmental change.
URBS	200b	Urban Theory (1)		X	This course reviews the development of theories regarding human behavior in cities and the production of space. The course spans the twentieth century, from the industrial city to the themed spaces of contemporary cities. Literature and topics examined to include the German school, urban ecology, debates in planning and architecture, political economy, and the cultural turns in urban studies.
ESCI	201b	Earth Materials: Minerals and Rocks (1)		X	The earth is made up of many different materials, including minerals, rocks, soils, and ions in solution, which represent the same atoms recycled continually by geological and biogeochemical cycles. This course takes a holistic view of the earth in terms of the processes leading to the formation of different materials. The class involves study in the field as well as in the laboratory using hand specimen identification along with the optical microscope and X-ray diffractometer.
ESCI	203b	Earth History (1)		X	In this course we study the methods and principles employed in deciphering the geologic history of Earth and the development of life on the planet. We emphasize the geologic evolution of the North American continent and the main features of the fossil record. Students learn to recognize the patterns of both biologic and tectonic evolution of Earth through time, from the Archean to the present. Woven throughout the course is consideration of the history of geologic thought through examination of the ideas of James Hutton, Charles Lyell, Charles Darwin, and Alfred Wegener.

ESCI/GEOG	221b	Soils and Sustainable Ecosystems (1)	X		Soils form an important interface between the lithosphere, hydrosphere, atmosphere, and biosphere. As such, they are critical to understanding the functioning of ecosystems. This course studies soil formation, and the physical and chemical properties of soils critical to the understanding of natural and constructed ecosystems. Field trips and laboratory work focus on the description and interpretation of local soils.
GEOG	230b	Geographic Research Methods (1)		X	How do we develop clear research questions, and how do we know when we have the answer? Focusing on qualitative approaches, this course examines different methods for asking and answering questions about the world, which are essential skills in geography and other disciplines. Topics include formulation of a research question or hypothesis, research design, and data collection and analysis. We examine major research and methodological papers in the discipline, design an empirical research project, and carry out basic data analysis.
URBS	232b	Design and the City: Contemporary Urbanisms (1)		X	This course looks at the evolving theories and practices of urban design since 1960, with a focus on current projects and debates. Initially conceived as the design discipline of the public realm, urban design has been transformed and redefined in relation to the changing modes of production of urban space. Today, in an urban environment that is largely shaped by forces and processes beyond the control of architects, planners and designers, the role of urban design is highly contingent on specific actors and projects. In addition to discussing readings from the past 50 years, we study a number of practices and projects from around the world.
ESCI/GEOG	235b	Water (1)	X		Ensuring adequate and safe groundwater supplies for humans and ecosystems requires extensive knowledge of the hydrologic cycle and of how contaminants may be introduced into water resources. We explore how rainfall and snowmelt infiltrate into soils and bedrock to become part of the groundwater system, learn what factors govern subsurface flow, and discuss the concept of well-head protection, which seeks to protect groundwater recharge areas from contamination.
GEOG/ASIA	236b	The Making of Modern East Asia: Empires and Transnational Interactions (1)		X	This course provides a multidisciplinary understanding of the common and contrasting experiences of East Asian countries as each struggled to come to terms with the western dominated expansion of global capitalism and the modernization process.
ASIA/GEOG/INTL	238a	Environmental China: Nature, Culture, and Development (1)	X		This course examines China's environments as created by and mediated through historical, cultural, political, economic and social forces both internal and external to the country. Moving away from prevailing caricatures of a "toxic" China, the course studies Chinese humanistic traditions, which offer rich and deep lessons on how the environment has shaped human activities and vice versa. We examine China's long-lasting intellectual traditions on human/environmental interactions; diversity of environmental practices rooted in its ecological diversity; environmental tensions resulting from rapid regional development and globalization in the contemporary era; and most recently, the social activism and innovation of green technology in China.
BIOL	241a	Ecology (1)	X		Population growth, species interaction, and community patterns and processes of species or groups of species are discussed. The course emphasizes these interactions within the framework of evolutionary theory. Local habitats and organisms are used as examples of how organisms are distributed in space, how populations grow, why species are adapted to their habitats, how species interact, and how communities change.
AFST/GEOG/INT/LALS	242b	Brazil, Society, Culture, and Environment in Portuguese America (1)	X		This course examines Brazil's contemporary evolution in light of the country's historical geography, the distinctive cultural and environmental features of Portuguese America, and the political-economic linkages with the outside world. Specific topics for study include: the legacies of colonial Brazil; race relations, Afro-Brazilian culture, and ethnic identities; issues of gender, youth, violence, and poverty; processes of urban-industrial growth; regionalism and national integration; environmental conservation and sustainability; continuing controversies surrounding the occupation of Amazonia; and long-run prospects for democracy and equitable development in Brazil.
URBS/POLI	249b	The Politics of City, Suburb, Neighborhood (1)		X	An examination of the development, organization, and practice of the varied forms of politics in metropolitan areas. Main themes include struggles between machine and reform politicians in cities; fiscal politics and urban pre-occupations with economic growth, racial and class politics; changes in federal urban policies; neighborhood politics and alternative forms of community organization; suburban politics and race/class.
GEOG/URBS	250b	Urban Geography: Space, Place, Environment (1)	X		This course focuses on the making of urban spaces, places, and environments at a variety of geographical scales. We examine entrepreneurial urban branding, sense of place and place making, geographies of race and class, urbanization of nature, environmental and spatial justice, and urban risk and resilience in facing climate change.
LALS/SOCI	251	Development and Social Change in Latin America		X	This course examines the ways in which Latin American and Caribbean nations have defined and pursued development and struggled for social change in the post World-War II era. We use country studies and development theories (including Modernization, Dependency, World-Systems, Feminist and Post-Structuralist) to analyze the extent to which development has been shaped by the tensions between local, national, and international political and economic interests. Within this structural context we focus on people and their relationships to each other and to a variety of issues including work, land, reproductive rights, basic needs, and revolution. Integrating structural analysis with an analysis of lived practice and meaning making allows us to understand development as a process that shapes, but is also shaped by, local actors.

POLI	252a	Modern Social Movements		X	This course examines continuities and transformations in both the study and practice of modern political and social movements. The course explores why movements emerge, how they develop, and what they accomplish. We study several dimensions of collective action, including their organization, leadership, ideology or programmatic content, and objectives. Our case studies are rich and diverse, spanning actors and geographic regions, yet we consciously draw comparisons across the cases concerning movements' origins, the context of power relations and political positioning within society. We also seek to understand the sometimes powerful, sometimes subtle influences of social movements on the nature of socioeconomic, gender, racial, ethnic, national and transnational relations today
AFST/ENST	258b	Environment and Culture in the Caribbean		X	The course traces the history of the relationship between ecology and culture from pre-Columbian civilizations to the economies of tourism. Among the specific topics of discussion are: Arawak and Carib notions of nature and conservation of natural resources; the impact of deforestation and changes in climate; the plantation economy as an ecological revolution; the political implications of the tensions between the economy of the plot and that of the plantation; the development of environmental conservation and its impact on notions of nationhood; the ecological impact of resort tourism; the development of eco-tourism.
ESCI/GEOG	260a	Conservation of Natural Resources (1)	X		This course provides a geographic perspective on natural resource conservation, using local examples to provide deeper experience with resource debates. We focus particularly on forest resources: biodiversity, forest health, timber resources, forest policy, and the ways people have struggled to make a living in forested ecosystems. We discuss these issues on a global scale (such as tropical timber piracy and forest conversion), and we explore them locally in the Adirondacks of New York.
GEOG/INTS	266a	Population, Environment, and Sustainable Development (1)	X		This course engages these debates via an examination of environmental change, power and inequality, and technology and development. Case studies include: water supplies, fishing and agriculture and the production of foodstuffs. Being a geography course, it highlights human-"nature" relations, spatial distribution and difference, and the dynamic connections between places and regions.
STS/ECON	267a	Environmental and Natural Resource Economics (1)	X		This course examines environmental and natural resource issues from an economic perspective. Environmental problems and controversies are introduced and detailed, and then various possible policies and solutions to the problems are analyzed. Economic analyses will determine the effectiveness of potential policies and also determine the people and entities which benefit from (and are hurt by) these policies. Topics include water pollution, air pollution, species protection, externalities, the energy situation, and natural resource extraction.
ENST	270b	Topics in Environmental Studies (1)	X		Topic: It's Only Natural: Contemplation in the American Landscape. This course examines the ways in which Americans have approached the natural world as both a source of revelation and an object of contemplation. Drawing on a wide range of literary, environmental and religious texts, we explore the dynamic relations between concepts of the natural, the human, and the divine in the American and the Native American experience.
ENST	271b	Literature and the American Environment (1)	X		This course considers the representations of nature and the environment in American literature, from the nineteenth century to the present, with special emphasis on contemporary experience and perception. Topics will include: the importance of sense of place (and displacement); multiple cultural discourses about nature; the rise of modern ecocriticism; indigenous understandings of the natural world; and the role of literature in environmental movements.
AFST/ECON	273b	Development Economics		X	A survey of central issues in the field of Development Economics, this course examines current conditions in less developed countries using both macroeconomic and microeconomic analysis. Macroeconomic topics include theories of growth and development, development strategies (including export-led growth in Asia), and problems of structural transformation and transition. Household decision-making under uncertainty serves as the primary model for analyzing microeconomic topics such as the adoption of new technology in peasant agriculture, migration and urban unemployment, fertility, and the impact of development on the environment.
ESCI/BIO	275a	Paleontology and the Fossil Record (1)		X	In this course, we explore the methodology used to interpret the fossil record, including preservational biases and how we account for them when studying fossil taxa. We also explore large-scale ecological changes and evolutionary processes and discuss how they manifest across geologic time, and how these relate to Earth's changing fauna. We additionally learn about how paleontology has developed as a field in the context of different historical and social perspectives.
POLI	279a.	Utopian Political Thought		X	A study of major Western utopias from Thomas More's to the present, including proposed "good societies," dystopias such as Brave New World, and existing communities that are utopian or can be analyzed through utopian principles. Central themes the role and value of utopias in understanding and criticizing the present and in imagining possibilities for the future; the use of utopias to explore important political concepts and different ways of living; and the relations among utopias, dystopias, and existing utopian experiments.

CLCS/FREN	284a	A Taste of Terroir: French Methodologies for Experiencing the Earth (1)		X	The uniquely French concept of "terroir" explains how the physiographic properties of the origin of a food or wine can be detected in its taste. Yet, although the French have "tasted the earth" through foods for more than 500 years, the idea remains problematic: some believe terroir to be more myth than science. This seminar queries the intersection between the science and myth of terroir, mapping the latter's evolution from Antiquity to the Renaissance and the French Revolution to the modern-day Parisian Restaurant. Along the way, we discover what terroir can tell us of French political theory, aesthetic appreciation, and an Epicurean philosophical movement subverted but never extinguished by Cartesian dualism. Other themes include: food and satire, the birth of connoisseurship, landscape theory, and the evolving dialect between nature and culture. Just as Proust used the flavors of the Madeleine to travel in time, we learn how the French use the "psychogeographics" of terroir to revisit forgotten places.
ANTH	286a	Food in its Cultural and Social Contexts (1)	X		This course explores a variety of frameworks for understanding food choices and constraints. Topics and issues to be addressed include food justice and problems of unequal access; "sustainable" farming and "local" foods; food practices in the construction of identity; and the links between slavery, colonialism, and the emergence of the industrial food system.
ENST	291a	Field Experiences in the Hudson Valley (1/2)		X	The course emphasizes project-based learning that, rather than beginning with established divisions or disciplines, focuses on problems or questions to which students can bring all the resources of their previous classes in a truly multidisciplinary fashion.
	ADVANCED				
URBS	303	Advanced Debates in Urban Studies (1)	X		Topic A: Greening the City: Sustainable Streets and Public Spaces: This seminar focuses on past and present efforts to remake cities with more livable and socially inclusive streets, plazas, parks, and other public spaces. Through the theoretical lens of urban political ecology and tactical urbanism, we examine the legacies of the environmental history, changing discourses of sustainability, "complete street" programs that accommodate pedestrians and bicyclists, new trends in park design and community gardens, and shoreline protection in an era of rising sea levels. We also consider possible problems with contemporary approaches, such as new forms of social exclusion and ecological gentrification. Topic B: Urban Inequality: What are the causes and consequences of inequality within cities, between cities, and across the urban/ suburban/ rural landscape? Topics for study include: urban (de)industrialization and economic restructuring; the relationship of economic inequality to other forms of inequality (political, educational, environmental, and more); inequality and growth; world cities and globalization; technological innovation and wealth generation; governmental responses to inequality, and citizens movements to fight poverty and inequality.
ENST	325	American Genres (1)		X	An intensive study of specific forms or types of literature, such as satire, humor, gothic fiction, realism, slave narratives, science fiction, crime, romance, adventure, short story, epic, autobiography, hypertext, and screenplay. Each year, one or more of these genres is investigated in depth. The course may cross national borders and historical periods or adhere to boundaries of time and place.
ESSC	331	Gender, Resources and Justice (1)	X		This multidisciplinary course acquaints students with the debates and theoretical approaches involved in understanding resource issues from a gender and justice perspective. Increasing concern for the development of more sustainable production systems has led to consideration of the ways in which gender, race, and class influence human-earth interactions. The course examines conceptual issues related to gender studies, earth systems, and land-use policies. It interrogates the complex intersections of activists, agencies and institutions in the global arena through a focus on contested power relations.
ESCI/ENST	335	Paleoclimatology: Earth's History of Climate Change (1)	X		In this course we examine the structure and properties of the oceans and atmosphere and how the general circulation of these systems redistributes heat throughout the globe, study how cycles in Earth's orbital parameters, plate tectonics, changes in ocean circulation, and the evolution of plants have affected climate, and explore the different lines of evidence used to reconstruct climate history.
GEOG	340	Advanced Urban and Regional Studies (1)	X		Topic B: Arctic Environmental Change: This course takes a biogeographic and landscape ecological approach to examining how this region contributes to global biodiversity, and why it contributes disproportionately to the regulation and change of the earth's climate system. What characteristics define these environments and make them especially vulnerable to positive feedbacks in a changing climate? How might climate changes alter landscape structure and composition, and what are the implications of these changes for the distribution of plants and animals in the region? What are global implications of these changes? We examine current literature and data to explore these questions about ongoing and anticipated environmental change in arctic regions.

ESCI/GEOG/ENST	341	Oil	X		This class looks into almost every aspect of oil. Starting at the source with kerogen generation, we follow the hydrocarbons along migration pathways to a reservoir with a suitable trap. We look at the techniques geologists and geophysicists use to find a field, and how engineers and economists get the product from the field to refineries, paying particular attention to environmental concerns. What is involved in the negotiations between multinational corporations and developing countries over production issues? What are the stages in refining oil from the crude that comes from the ground to the myriad uses seen today, including plastics, pharmaceuticals, and fertilizers, not to mention gasoline? We also discuss the future of this rapidly dwindling, non-renewable resource, and options for an oil-less future.
ENST/URBS	350	New York City as Social Laboratory (1)		X	This seminar provides a multidisciplinary inquiry into New York City as a case study in selected urban issues. Classroom meetings are combined with the field-based investigations that are a hallmark of Urban Studies. Site visits in New York City allow meetings with scholars, officials, developers, community leaders and others actively involved in urban affairs.
ESCI	351	Volcanology (1)		X	This course addresses the physical aspects of volcanoes, including such topics as the generation of magmas, styles of eruptions, products of eruptions, tectonic controls on the formation of volcanoes, and methods for predicting eruptions and mitigating the hazards associated with volcanic activity.
MEDS/URBS	352	The City in Fragments (1)		X	In this seminar, we use the concept of the fragment to explore the contemporary city, and vice versa. We draw on the work of Walter Benjamin, for whom the fragment was both a central symptom of urban modernity and a potentially radical mode of inquiry. We also use the figure of the fragment to explore and to experiment with the situationist urbanism of Guy Debord, to address the failure of modernist dreams for the city, and to reframe the question of the "global" in contemporary discussions of global urbanization. Finally, we use the fragment to destabilize notions of experience and evidence—so central to positivist understandings of the city—as we make regular visits to discover, as it were, non-monumental New York.
BIOL	356	Aquatic Ecology (1)		X	A consideration of freshwater, estuarine, and marine habitats that examines material and energy fluxes through aquatic systems; physiological aspects of primary production; the biogeochemical cycling of nutrients; adaptations of organisms to physical and chemical aspects of aquatic environments; biological processes that structure selected communities; and the role of aquatic habitat in global change phenomena.
ENST/GEOG/URBS	356	Environment and Land-Use Planning (1)	X		This seminar focuses on land-use issues such as open-space planning, urban design, transportation planning, and the social and environmental effects of planning and land use policies. The focus of the course this year is impacts of planning policies (such as transportation, zoning, or growth boundaries) on environmental quality, including open space preservation, farmland conservation, and environmental services.
ANTH	364	Travelers and Tourists (1)	X		The seminar explores tourism in the context of a Western tradition of travel and as a complex cultural, economic and political phenomenon with profound impacts locally and globally. We also address issues pertaining to the culture of contemporary tourism, the commoditization of culture, the relation between tourism development and national identity and the prospects for an environmentally and culturally sustainable tourism.
ENST	364	Seminar on Selected Topics in Law and Technology			
ENST/Asian Studies/HIST	367	People and Animal Histories in Modern India (1)		X	
ENST/HIST	367	Peoples and Environments in the American West (1)		X	This course explores the history of the trans-Mississippi West in the nineteenth century and its legacies in modern America. Themes include cultural conflict and accommodation; federal power and Western politics; and humans' negotiations with their environments. The course considers the history of the frontier as a process; the Western U.S. as a geographic place; and the legendary West and its functions in American mythology.
STS/ENST/WMST	370	Feminism and Environmentalism (1)	X		In this seminar we explore some basic concepts and approaches within feminist environmental analysis paying particular attention to feminist theory and its relevance to environmental issues. We examine a range of feminist research and analysis in 'environmental studies' that is connected by the recognition that gender subordination and environmental destruction are related phenomena. That is, they are the linked outcomes of forms of interactions with nature that are shaped by hierarchy and dominance, and they have global relevance. The course helps students discover the expansive contributions of feminist analysis and action to environmental research and advocacy; it provides the chance for students to apply the contributions of a feminist perspective to their own specific environmental interests.
Asian Studies	372	Topics in Human Geography (1)	X		This seminar focuses on advanced debates in the socio- spatial organization of the modern world. The specific topic of inquiry varies from year to year. Previous seminar themes include the urban-industrial transition, the urban frontier, urban poverty, cities of the Americas, segregation in the city, global migration, and reading globalization.
ENST/CHEM	375	Aquatic Chemistry (1/2 or 1)		X	This course explores the fundamentals of aqueous chemistry as applied to natural waters. The global water cycle and major water resources are introduced. Principles explored include: kinetics and thermodynamics, atmosphere-water interactions, rock-water interactions, precipitation and dissolution, acids and bases, oxidation and reduction, and nutrient and trace metal cycling.

STS	382	Renewable Energy (1)	X		This seminar is a careful examination of the renewable energy technologies currently available to replace fossil fuels. Primary attention goes to wind, solar power, hydroelectric power and biomass (including ethanol and biodiesel), with briefer consideration of other renewables such as geothermal and tidal energy. The seminar draws upon such methodologies as the social construction of technology and actor-network theory to understand the interaction of technological, economic, environmental and political factors currently shaping the field of renewable energy.
GEOG	382	Neoliberalism, Environmental Governance, and the Commons (1)	X		Ranging between these two poles of neoliberalism and the commons, this course examines political, economic, and cultural dimensions of the management of nature and natural resources, drawing on cases from various sites across the globe, including Africa, South and Southeast Asia, the Mideast and North & South America. With focus on the contested forms of access to and control over natural resources and their intersection with environmental change and social justice in both rural and urban areas, topics include large-scale resource extraction; markets and environmental institutions; the production of environmental knowledge; conservation and common property; and environmental social movements and resistance.
GEOG	384	Community GIS (1)		X	Geographers contribute to vitality and equity in their communities by examining the spatial dynamics of socioeconomic and environmental problems. Strategies used to interrogate these problems include mapping and geographic information systems (GIS), or computer-aided mapping and spatial analysis. For example, community access to transportation and housing, differential access to food or health care, or distributions of social services are often best understood in terms of mapped patterns. These patterns both reflect and influence the social dynamics of a community. In addition to affecting quality of life, these issues give insights into the ways we decide as a society to allocate resources. In this course we take on subjects of concern in the local area and use mapping and spatial data to examine them.
ESCI	385	Stable Isotopes in the Earth and Environmental Sciences (1)	X		This course highlights the uses of stable isotopes in ecological, climatic, environmental, and geological studies and also discusses the limitations and scientific abuses of these tools. Students learn the fundamentals of stable isotope biogeochemistry, including the differences between stable and radiogenic isotopes and the processes that fractionate (separate) common stable isotopes among different biogeochemical reservoirs. Readings derive from the primary literature and are adjusted to cover topics of interest to students. Potential topics include, but are not limited to, biogeochemical cycling, uplift of mountain ranges, paleodiets of fossil organisms, and climate change.
ESCI/ENST/GEOG	387	Risk and Geohazards (1)	X		The world is becoming an increasingly risky place. Every year, natural hazards affect more and more people, and these people are incurring increasingly expensive losses. This course explores the nature of risk associated with geophysical phenomena. Are there more hazardous events now than there have been in the past? Are these events somehow more energetic? Or is it that increasing populations with increasingly disparate incomes are being exposed to these hazards? What physical, economic, political and social tools can be employed to reduce this geophysical risk? We draw on examples from recent disasters, both rapid onset (earthquakes, tsunamis, cyclones), and slow onset (climate change, famine) to examine the complex and interlinked vulnerabilities of the coupled human-environment system.
AMST/ENST	389	From the Natural History Museum to Ecotourism: The Collection of Nature (1)	X		This course investigates historical and current trends in the way North Americans recover, appropriate, and represent non-western cultures, 'exotic' animals, and natural environments from theoretical and ideological perspectives. Course readings draw from the fields of anthropology, archaeology, museology, literature, and environmental studies.
ENST	301a	Senior Seminar (1)	X		In the Senior Seminar, Environmental Studies majors bring their disciplinary concentration and their courses in the program to bear on a problem or set of problems in environmental studies. Intended to be an integration of theory and practice, and serving as a capstone course for the major, the seminar changes its focus from year to year.
GEOG	304a	Senior Seminar: Issues in Geographic Theory and Method (1)	X		A review of the theory, method, and practice of geographical inquiry. The seminar traces the history of geographic thought from early episodes of global exploration to modern scientific transformations. The works and biographies of major contemporary theorists are critically examined in terms of the changing philosophies of geographic research. Both qualitative and quantitative approaches are discussed, along with scientific, humanist, radical, feminist, and other critiques in human geography. Overall, alternative conceptions of geography are related to the evolution of society and the dominant intellectual currents of the day.
ESCI	321b	Environmental Geology (1)	X		This course explores the fundamental geochemical processes that affect the fate and transport of inorganic and organic pollutants in the terrestrial environment. We link the effects of these processes on pollutant bioavailability, remediation, and ecotoxicology
STS/ANTH/ENST	331b	Topics in Archaeological Theory and Method (1)		X	Topic: Technology, Ecology, and Society: Examines the interactions between human beings and their environment as mediated by technology, focusing on the period from the earliest evidence of toolmaking approximately up to the Industrial Revolution.

ESCI	340b	Advanced Urban and Regional Studies (1)	X		This course takes a biogeographic and landscape ecological approach to examining how this region contributes to global biodiversity, and why it contributes disproportionately to the regulation and change of the earth's climate system. What characteristics define these environments and make them especially vulnerable to positive feedbacks in a changing climate? How might climate changes alter landscape structure and composition, and what are the implications of these changes for the distribution of plants and animals in the region? What are global implications of these changes?
BIOL/ENST	352a	Conservation Biology (1)	X		Conservation Biology uses a multidisciplinary approach to study how to best maintain the earth's biodiversity and functioning ecosystems. We examine human impacts on biodiversity and ecosystem function and discuss how to develop practical approaches for mitigating those impacts. We start the semester by assessing the current human footprint on global resources, asking questions about what we are trying to preserve, why we are trying to preserve it, and how we can accomplish our goals. We critically examine the assumptions made by conservation biologists throughout, using case studies from around the world to explore a range of perspectives. Discussion topics include conservation in an agricultural context, the efficacy of marine protected areas, the impact of climate change on individual species and preserve design, restoration ecology, the consequences of small population sizes, conservation genetics, the impacts of habitat fragmentation and invasive species, and urbanecology.
ESCI/ENST	361a	Modeling the Earth (1)	X		Computer models are powerful tools in the Earth and Environmental Sciences for generating and testing hypotheses about how the Earth system functions and for allowing simulation of processes in places inaccessible to humans (e.g. Earth's deep interior), too slow to permit observation (e.g., erosion driven uplift of mountains ranges), or too large to facilitate construction of physical models (e.g., Earth's climate system). Taking readings from the scientific literature, we create and then perform experiments with simple computer models, using the STELLA iconographic box-modeling software package. Topics include the global phosphorus cycle, Earth's radiative balance with the sun and resulting temperature, the flow of ice in glaciers, and the role of life in moderating Earth's climate.
ENST/SOCI	368b	Toxic Futures: From Social Theory to Environmental Theory (1)	X		The central aim of this class is to examine the foundations of the discourse on society and nature in social theory and environmental theory to explore two questions. The first question is how does social theory approach the construction of the future, and the second question is how has this construction informed the present debates on the impact of industrialization, urbanization, state-building and collective movements on the environment? In this context, the class focuses on how social theory informs different articulations of Environmental Thought and its political and epistemological fragmentation and the limits of praxis, as well as its contemporary construction of alternative futures.
ENST/POLI	372a	Sustainability and Environmental Political Thought (1)	X		This course will explore the historical origins of the concept, its various and contested meanings, its relation to other leading dimensions of environmental political thought, and its critics. We will also analyze the relation of sustainability to mass-consumption societies, to democracy, and to the modern state.
GEOG	372b	Topics in Human Geography (1)		X	Lines, Fences, and Walls: The Partitioning of the Global Landscape. This course examines the making of the spatial boundaries that divide and connect people and places across the Earth's surface. In doing so, it considers the origins and evolution of various types of divides--from private property lines that have marked the demise of commons throughout the world, to the barbed wire fences used to contain people and animals, and the international boundary walls and barriers that increasingly scar the global landscape--and considers various effects of and responses to these phenomena.
ESCI	379b	Conservation Paleobiology (1)	X		This discussion based course explores how paleontological data in both terrestrial and marine environments (e.g., varved lake deposits, rodent middens, marine fossil deposits, and archaeological material) can be used to help set restoration targets and inform conservation practices by filling in these knowledge gaps. We also gain experience interpreting geohistorical data, and discuss several specific case studies where the geologic record has been utilized to inform conservation planning. By the end of the course, students are aware of the range of different types of information that can be gathered from the geohistorical record (such as burn regimes and climate records, as well as inferences about paleo-diets and changing environmental conditions), the unique contributions of this record to increasing understanding of current conservation issues, and the impacts that humans have on ecosystems.
BIOL/ENST	381b	Topics in Ecosystem Ecology - Ecosystem Structure and Function (1)	X		This course explores how ecosystems, both aquatic and terrestrial, are assembled (structured) and how different ecosystems process energy and matter (function). We use our understanding of structure and function to explore how different ecosystems respond to changes in the environment (including climate change, invasive species introductions, loss of biodiversity and pollution).
GEOG/ENST	386a	Seminar on Energy and Extraction (1)	X		This course examines the political, economic, cultural, and ecological dimensions of historical and contemporary systems of energy and extraction. Grounded in theoretical perspectives from political ecology, critical resource geography, green governmentality, and related fields, we examine key issues surrounding, on one hand, energy production, distribution, and consumption; and on the other hand, global extractive industries.

BIOL	389b	Sensory Ecology (1)	X	There are many behaviors that are critical to the survival and reproduction of animals including finding food, avoiding predators, attracting mates, and raising offspring. The ability to successfully engage in these behaviors is dependent on the ability of organisms to acquire and respond to information in their environment. In this course we discuss the concept of information, the types of information available in the environment, the diversity of sensory systems animals have evolved to exploit that information, and how sensory information and processing influence behavior.	
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