

ENVIRONMENTAL STUDIES (ENV)

ENV 100 Water, Wildlife and Windmills - An Introduction to Environmental Studies and Sciences (3 credits)

This is the gateway for majors in Environmental Studies and Science. This course is designed around three problem-based learning modules, using focused questions to teach students the relationship between science and policy. The specific questions will be related to three basic topics resources (water), biodiversity (wildlife) and sustainable energy (windmills.). Possible questions include: Is it safe to drink your tap water? Do we want to live with bears? How many windmills make sense (and where)?

Course Rotation: NY, PLV: Fall

Prerequisites: This course does not have a prerequisite.

ENV 105 Social Responsibility and the World of Nature (3 credits)

This course considers the idea of citizenship in relation to obligations to nature through a multidisciplinary examination of primary texts from economics, environmentalist studies, philosophical ethics, political economy, and social ecology. Direct student participation in the workings of local government will provide the community-based component and encourage leadership skills through active engagement on Community Board and Town Council environmental committees (environmental committees include land use, preservation, etc.). While in-class reports and a journal focus on the relationship between the more theoretical course readings and the civic experience serve to integrate learning and service.

Course Rotation: NY, PLV Fall and Spring.

Prerequisites: This course does not have a prerequisite.

ENV 110 Nature and Culture: A Study in Connections (3 credits)

This course examines prominent worldviews that have guided human action toward the natural world. By reading the influential environmental writings of philosophers, economists, environmentalists, theologians, political science, biologists, and naturalists we analyze the interactions between human and natural phenomena, the impact human actions have on the natural world, and the ways nature affects change in civilization. The primary goal of the course is to provide students an opportunity to see how global and interdisciplinary views of nature influence human choices and offer alternative courses of action toward viable solutions that are subject to an ethical analysis.

Course Rotation: Fall and Spring

Prerequisites: This course does not have a prerequisite.

ENV 110C Nature and Culture: A Study in Connections - CAP (3 credits)

This course examines prominent worldviews that have guided human action toward the natural world. By reading the influential environmental writings of philosophers, economists, environmentalists, theologians, political science, biologists, and naturalists we analyze the interactions between human and natural phenomena, the impact human actions have on the natural world, and the ways nature affects change in civilization. The primary goal of the course is to provide students an opportunity to see how global and interdisciplinary views of nature influence human choices and offer alternative courses of action toward viable solutions that are subject to an ethical analysis.

Course Rotation: Fall and Spring

Prerequisites: This course does not have a prerequisite.

ENV 111 Environmental Studies: Economic, Ethical and Political Perspectives (0-3 credits)

This interdisciplinary course will concentrate on the interdependence between nature and culture, integrating the economic, political and philosophical issues involved in environmental problems. General topics in value assessment and application to public policy are studied from a problem-oriented approach.

Course Rotation: NYC and PLV: Fall

Prerequisites: This course does not have a prerequisite.

ENV 112 Environmental Studies - Basic Issues (0-3 credits)

As in ENV 111, the relationship between nature and human culture will serve as a backdrop for the course. From the perspectives of economics, philosophical ethics and political science, this course critically examines central topics in the environment. Air and water pollution, population, deforestation, biodiversity, global warming, resource use, renewable and nonrenewable energy are considered from an interdisciplinary perspective.

Course Rotation: NYC and PLV: Spring.

Prerequisites: This course does not have a prerequisite.

ENV 115 Healthy Living in a Sustainable World (3 credits)

This course examines environmental health in the context of sustainability. The field of environmental health studies the biological, chemical and physical environment as they impact health, and sustainability explores how people can live in greater harmony with nature to meet our current needs while protecting the well-being of future generations. Course format includes lecture, discussion, student book presentations and student-led movie debates. Topics to be covered include the health implications of climate change, solid and hazardous wastes disposal, drinking water and wastewater management, agricultural practices and toxics in consumer products. Critical thinking and active listening skills will be required to explore diverse, and, at times, clashing points.

Course Rotation: PLV: Spring

Prerequisites: This course does not have a prerequisite.

ENV 130 The Naturalists (3 credits)

This course is designed to provide students with aesthetic insight into the natural world through the creative and imaginative writings and observations of famous naturalists. Significant time will be spent studying aesthetic categories that have influenced the conceptual profile and strategies of the environmental movement in the West. Classroom discussions and experimental field studies will blend theory with first hand experiences. Investigation of the perception and reality of "our place" in the world of nature and how aesthetic responses and art has influenced that perception over the years provide the enduring theme for the course.

Course Rotation: Spring

Prerequisites: This course does not have a prerequisite.

ENV 140 Act Locally: Sustainable Design and You (3 credits)

In this course we will explore multiple dimensions of waste in society, including garbage and recycling, food waste and composting, greenhouse gas emissions, textile, chemical, and e-waste. Correlations will be made between humans and their interrelationships to the natural world by examining social, economic and environmental influences. As part of a community service component students will be engaged in team projects that will provide educational programs to the Pace community.

Course Rotation: PLV Spring

Prerequisites: This course does not have a prerequisite.

ENV 170 Spaceship Earth: Issues of Sustainability (3 credits)

ENV 172 Introduction to World Regional Geography (3 credits)

This course will introduce students to the field of geography through an examination of the principal regions of the world. Geographic's regions are part of the world that share a conceptual unity because they possess some sort of organizing principal such a physical, human, economic, and/or political characteristics. Throughout the semester, we will examine not only the organizing principals that give us regions like "Latin America", but also the various benefits and drawbacks of the continued use of such conceptualizations to understand our increasingly interconnected world. Student will develop a better understanding of the affairs and conditions of world regions, as well as developing a critical approach to the way we come to understand the world around us.

Course Rotation: PLV; Fall

Prerequisites: This course does not have a prerequisite.

ENV 201 Animals and Society (3 credits)

Animals and Society directs students in the interdisciplinary evaluation of the human-non-human relationship, and how contemporary methods of exploitation pose benefits and harms to humans and animals alike. The course will review a range of applied topics, including domestication, cognition, wildlife and hunting, zoos, companion animals, entertainment, meat production, and vegetarianism. Students acquire literacy in current animal welfare and rights issues, learn about laws that effect animals, and develop the writing and advocacy skills to participate in social media activism.

Course Rotation: PLV: Spring

Prerequisites: This course does not have a prerequisite.

ENV 205 Globalization, Trade and the Environment (3 credits)

Ever since the end of the Cold War the social, political, and economic forces have coalesced to reshape the world. One of the most striking features that has emerged since then, on the world stage, is the trend towards global economic integration. Globalization, in spite of its popular and common usage, is very much a contested concept. Some emphasize the increasing interconnections between different players' economic, political, and cultural fields while others stress the notion that globalization is essentially an effort to undermine the national sovereignty and authentic identities of nation states by transitional actors.

Course Rotation: NYC: Spring

Prerequisites: This course does not have a prerequisite.

ENV 210 Environmental and Natural Resource Economics (3 credits)

This course will familiarize students with many fundamental concepts, ideals and tools needed to understand environmental economics. Topics of discussion and assessment will include: conceptualizations of environmental degradation, ethical standards, economic principles, intercommunications between social behaviors, and environmental policy for the public and private sectors in developed and developing countries, as well as the economic implications of alternative environmental policies.

Course Rotation: TBD

Prerequisites: This course does not have a prerequisite.

ENV 211 Environmental Assessment (3 credits)

Following a study of relevant environmental regulations, this course will demonstrate the tools and techniques used in developing and interpreting natural resource inventories and in analyzing the potential social, cultural and political impacts of particular types of land use. Using extensive field work, students will learn how to locate, read and interpret maps, how to conduct field surveys of soil, vegetation and animal resources, and how to analyze the accumulated data and predict the land use capability of a particular site. Lab work will consist of analyzing data in Geographic Information Systems. Professionally-prepared environmental impact statements will be analyzed for content, methodology, and compliance with the applicable laws.

Course Rotation: NYC and PLV: Spring.

Prerequisites: This course does not have a prerequisite.

ENV 212 Environmental Sampling and Study Design (3 credits)

This course will focus on teaching students the aspects of environmental study design and common methods for the sampling and analysis of environmental samples (e.g., vegetation, wildlife, soil and water). Students will learn the process of conducting literature searches and how to use this information to craft research questions and develop hypotheses. Students will design environmental sampling protocols to evaluate a research question and collect and analyze samples and interpret their findings. Classes will consist of lectures, field activities, laboratory analyses, and group activities/discussions. Participants should feel comfortable collecting samples from field sites in a variety of weather conditions and hiking through uneven terrain.

Course Rotation: PLV: TBD.

Prerequisites: This course does not have a prerequisite.

ENV 215 Foundations of Environmental Law for Non-Lawyers (3 credits)

This course offers students an introduction to American environmental law. The first two weeks will provide the student with a basic introduction to the legal process, sources of law, and the anatomy of a case brief. Students will be presented with an overview of how the United States legal system works at the local, state, and national levels. The majority of the semester will be focused on the foundations for environmental law. The history of the environmental movement will be discussed as well as development of laws that affect environmental issues. Throughout the course, we will consider the roles of individuals and nonprofit organizations in the administrative and litigation processes. Students will become acquainted with specific environmental laws, enforcement, and methods for compliance.

Course Rotation: PLV: Fall, odd years

Prerequisites: This course does not have a prerequisite.

ENV 221 Environmental Science: The Web of Life (0-3 credits)

An introduction to living systems and the environment that sustains them. Topics covered include: the diversity of life, food chains, ecosystems, elements of recycling, eutrophication, and the Greenhouse Effect. This course will provide students with a basic knowledge of the organization, structure and function of living organisms, with emphasis on their interaction with the environment.

Course Rotation: NYC and PLV: Spring

Prerequisites: This course does not have a prerequisite.

ENV 222 Environmental Chemistry: Principles, Problems and Solutions (0-3 credits)

This course assumes no prior knowledge of chemistry. The course will teach the basic principles of chemistry and then focus on some environmental issues, which have chemical implications. Some of those topics which will be covered are: air pollution, water pollution and cleanup, soil fertility, agricultural chemicals, nuclear topics, plastics, hazardous waste, acid rain, ozone depletion, greenhouse gases, and photochemical smog.

Course Rotation: NYC and PLV: Fall

Prerequisites: This course does not have a prerequisite.

ENV 225 Energy Policy (3 credits)

This course will focus on how the US governs its energy system and how it relates to environmental issues such as global warming. Exploring environmental and sustainability issues, students will learn about alternative energy policies, systems and designs. Students will learn how public, private, and non-profit sectors are involved in current energy systems and how policy re-design of energy law and policy could lead to more renewable energy systems.

Course Rotation: NYC, PLV; Spring Odd Years

Prerequisites: This course does not have a prerequisite.

ENV 226 Environmental Anthropology (3 credits)

Environmental anthropology is the study of the relationship between different cultures and their natural environments. This course examines how human communities traditionally adapted their subsistence strategies and social organization to their local environments and how these adaptations changed over time. The emphasis is on the diversity of these adaptations in different places, e.g. in arctic zones, highlands, arid lands, grasslands, and tropical rain forests. The course also investigates how economic development and globalization influenced these adaptations and thereby contributed to contemporary environmental problems that in turn affect cultures and continue to change them. A historical survey of anthropological contributions to environmental studies covers the following topics: Population, economic development, biodiversity, environmentalism, indigenous groups, consumption, and globalization. Finally, the course looks at the different forms of environmentalism that have emerged from these perspectives.

Course Rotation: NYC: Spring

Prerequisites: This course does not have a prerequisite.

ENV 230 Natural Beauty: An Introduction to Environmental Aesthetic (3 credits)

This course examines various aesthetic senses of nature and their influence on human reactions to the natural world. We will read texts by environmentalists, naturalists, philosophers, ecologists, theologians, and literary works like the flamboyant and exhibitionist 19th century romantics, and the distinctly American phenomena of New England Transcendentalism. We will view works of art from different historical periods and traditions, for example the Hudson River School painters, landscapes of the pointillists, and traditional Chinese landscape painting, and witness Constable's capturing the chiaroscuro of nature in the dews and breezes of the countryside. We will not only study the aesthetics of beauty, but also investigate aesthetic qualities broadly defined to include symbolic codes and properties that metaphorically express particular cultural values.

Course Rotation: NYC: Spring, odd years

Prerequisites: This course does not have a prerequisite.

ENV 231 Equity and the Design of Sustainable Futures (3 credits)

Looking at issues such as transit-oriented development, smart cities and the sharing economy, students learn different approaches to designing sustainable governance. Students gain literacy on design of alternative economic systems, including the challenges and opportunities presented by different approaches to sustainability. Students use these approaches to practice the design of realist and effective paths toward more sustainable futures.

Course Rotation: NYC, PLV; Spring: Even Years

Prerequisites: This course does not have a prerequisite.

ENV 235 Sustainable Living in Our World (3 credits)

This course will examine how psychology and other social sciences can contribute to a sustainable future through the study of attitudes, values, knowledge, and behavior associated with environment problems of the 21st century. Readings and class discussions will apply theoretical perspectives and empirical findings to subjects such as environmental justice, development of environmental identity and ethics, perception of risk, and the benefits of nature experience. Field trips will offer opportunities to explore sustainability at the local level. For their final project students will conduct a detailed study of an environmental problem on campus or in the neighborhood through collection of both archival and field data, and will propose a strategy for change.

Course Rotation: NYC and PLV: Fall

Prerequisites: This course does not have a prerequisite.

ENV 245 Environmental Justice (3 credits)

Environmental justice (also referred to as environmental injustice) is the idea the poor and marginalized communities endure more environmental risks than others. The term environmental justice emerged to coalesce efforts to address environmental inequality and the conditions that produce environmental injustices. This course explores the field of environmental justice, from its historic roots to its diverse strands. We will consider the frameworks of determining what an environmental injustice is, how it occurs, who is impacted, and strategies of resistance. We will read case studies that trace diverse ways of understanding environmental injustice, such as environmental racism, toxic exposure, conservation exclusion, labor conditions, access to resources, and more. Students will also study local case studies and develop a project on a local issue.

Course Rotation: NYC, PLV; Fall.

Prerequisites: This course does not have a prerequisite.

ENV 255 Environmental History (3 credits)

Environmental history is the study of human interactions with the nonhuman world over time, with an emphasis on the role of nonhuman nature in significantly shaping those relationships. This course explores the field of environmental history through seminal and current readings, seminar discussions, and other activities. We will consider the emergence of environmental history out of the broader environmental movement and early concerns about conservation. We will read case studies that expand the field into more general socio-ecological and scientific histories around topics such as cities, nitrogen, mushrooms, population, water, and more. We will note how environmental histories can focus on particular time-scales, regions, or themes, and connect a wide range of disciplines.

Course Rotation: NYC, PLV; Fall

Prerequisites: This course does not have a prerequisite.

ENV 260 Climate Change (3 credits)

It's taken billions of years to generate the exact, quintessential conditions needed for humans to survive on Earth. Yet, in less than a century, humans now threaten to upset the delicate balance that makes existence on this planet possible. While climate has naturally cycled over the course of earth's long history, scientists agree that we must take control of our addiction to fossil fuels or risk the habitability of the planet. Through an examination of both the science and the social aspects of climate change, this course will give students an understanding of the climate challenge. Students will learn the scientific mechanisms of atmospheric and ocean circulation. They will also gain an understanding of the ways climate scientists are actively trying to predict the outcome of our actions through climate models and computer forecasting. Students will also learn about the challenges of political and public discourse on climate change and evaluate the effectiveness of current policy solutions, to final ask: What should be done?

Course Rotation: NYC: Fall

Prerequisites: This course does not have a prerequisite.

ENV 265 Multiple Environmental Knowledges (3 credits)

This course will complement learning on scientific perspectives by presenting students with case studies in which different types of knowledges, values, and worldviews - both scientific and nonscientific - need to be taken into account for making decisions on natural resources management and policy. The class material will be based on a deep discussion of the importance of multiple knowledge sources, so that students can simultaneously learn about the science behind a given environmental topic, as well as additional political, economic, social and cultural issues at stake.

Course Rotation: NYC, PLV; Fall.

Prerequisites: ENV 100 with minimum grades of D.

ENV 274 Environmental Education and Interpretation (3 credits)

This interactive course will focus on how to deliver environmental concepts and messages to a variety of audiences using a diversity of approaches. Conveying information in a clear and concise manner is a critical component of science and an essential skill for anyone in the field of environmental studies and science. In addition to learning the theory of environmental communication, students will gain practical experience by developing both active (e.g., guided walks, school programs) and passive (e.g., signage, brochures) educational materials.

Course Rotation: PLV: Spring ODD

Prerequisites: This course does not have a prerequisite.

ENV 275 Food Systems and Agroecology (3 credits)

This course looks at the various ways humans use natural resources and social systems to feed themselves. Critics of modern industrial agriculture argue that there are better ways to work with nature to design our food system. The course will examine those critiques and the alternative food systems that have developed in reaction to the environmental problems created by industrial agriculture. Alternative food systems examined include local, fair trade, small-scale and family farms and production systems such as agroecology, urban gardening, regenerative agriculture and other forms of sustainable agriculture. The course will focus on how more ecological forms of food production are linked to new ways for food producers and food eaters to relate to each other, including more just farm labor systems.

Course Rotation: PLV; Spring

Prerequisites: This course does not have a prerequisite.

ENV 285 Food Revolutions: The Politics (3 credits)

The burgeoning Food Studies movement places human affinities for food within a cultural, ethical, and economic context. Food symbolizes something so much more powerful than what we might think at first glance; its taste gives our lives fulfillment and meaning, and what we eat establishes both positive and negative connections with other people, other animals, and other landscapes. In other words, what we eat defines who we are. Food matters because we matter. This course is an advanced introduction into Food Studies via three disciplinary trajectories; applied ethics (namely animal and environmental ethics), ecological economics, and industrial psychology. These three lenses, combined with a range of controversial documentaries and group presentations, will engage students in analysis of the complex role of food in every facet of our lives. Topics covered include biotechnology and genetic patenting, farmer's markets and local food movements, organics, hunger and malnutrition, factory farms, molecular gastronomy, restaurant business models, resource distribution, veganism, and international economics.

Course Rotation: Spring;NY

Prerequisites: This course does not have a prerequisite.

ENV 288 Flora and Fauna of the Hudson Valley (0-3 credits)

This field-based course will focus on teaching students how to identify local plants and animals. Students will also learn the natural history of plants and animals including habitats, predators and prey, threats, and conservation status. Classes will consist of lectures, field trips to observe plants and animals in their natural habitats, and group discussions. Participants should feel comfortable spending long periods of time outdoors in a variety of weather conditions as well as hiking through uneven terrain.

Course Rotation: PLV; Spring.

Prerequisites: This course does not have a prerequisite.

ENV 297E Topic: Sustainability and Social Change (3 credits)

This course looks at different approaches to sustainability as governance, planning and project design. This is an interdisciplinary course designed to train students to think about the sustainability from multiple perspectives and to learn how to work collaboratively and professionally on sustainability problems through social, artistic and technical team-based learning. This course was originally designed as an NSF-funded STEM curriculum development grant that combined social action, project design and technical literacy on sustainability.

Course Rotation: NY: Fall and Spring

Prerequisites: This course does not have a prerequisite.

ENV 297G Nature and the City (3 credits)

This course will take a detailed look at the environment and ecology of New York City and the surrounding region and how it has changed over time as a case study for understanding relationships between people and nature in a urban settings around the world. It will examine the many different ways that people perceive and engage with nature in their city, including parks, urban wildlife, water bodies, and claimed and unclaimed green spaces. We will discuss concepts such as sense of place in order to explore different ways that urban dwellers related to and share their natural environments.

Course Rotation: NY: Spring

Prerequisites: This course does not have a prerequisite.

ENV 297H Topic: The Political Ecology of Water (3 credits)

ENV 297L Topic: Earth Systems: Our Interconnected Planet (3 credits)

What makes Earth the only habitable planet we know of? How do matter and energy move around and through this tremendous orbiting mass? What is happening in the parts of Earth we cannot see, including the Earth's interior, the deep ocean, and the upper atmosphere? Why should we know about these forces and fluxes? How might these understandings impact how we engage with Earth systems? This course asks students to conceptualize the large-scale planetary forces around us. The solid, liquid, and gaseous components of Earth are constantly in motion, and yet, few people have opportunities to comprehend these dynamics. We will explore how the solid interior of Earth forms and constantly moves, how the global ocean conveyor belt regulates Earth's climate, and how atmospheric systems redistribute matter and energy on Earth's surface. The unifying theme is convection: movement of matter with energy. Students will read scientific literature and textbook materials; however, no formal scientific background is required. Hands-on activities, computer-based simulations, creation of artistic representations of concepts, and student-led discussions will be key throughout the course. Students will be asked to spend 15 hours of civic engagement to support hands-on experiences with Earth Systems. Culminating assessments will take the form of creative projects based on class content and literature reviews.

Course Rotation: NYC: Fall, Odd Years.

Prerequisites: This course does not have a prerequisite.

ENV 297M Topic: Humans and Ecosystems (3 credits)

The objective of this course is to explore our current understanding of how humans are impacting the function of ecosystems, and how changes in ecosystems affect the provisioning of ecosystem services and ultimately human well-being. The two primary drivers of ecosystem change are growth of the human population and increased consumption per capita. These drivers affect the Earth's cycles of carbon, nitrogen, and water, as well as regional and global-scale changes in biodiversity and climate. The course includes an in-depth discussion of scenarios for the next 50 and 100 years, which project costs and benefits of alternative development pathways in terms of climate change, food production, clean water and biodiversity. Scenarios of change in biodiversity lead to a discussion of the consequences of biodiversity change for ecosystem productivity and stability. Human activities have disrupted several biogeochemical cycles, including the nitrogen and carbon cycles. This course discusses alterations and interactions among major biogeochemical cycles. These introductory discussions of human impacts on ecosystem functioning are complemented with discussions of potential applied solutions to environmental problems. The course includes classes on alternative biofuels and their impacts on the environment, encompassing ecosystem-level effects, from greenhouse gas emissions to nitrogen pollution and biodiversity loss.

Prerequisites: CHE 111 and BIO 101 with minimum grades of C-

ENV 297N Topics: Global Environmental Policy and Governance (3 credits)

The course aims to provide a broad overview of the key concepts, actors, debates, and issues in global environmental politics. It demonstrates the complexities both of the nature of the problems as well as the solutions. The proliferation of global institutions and international actors and the absence of central enforcement mechanisms are hallmarks of addressing environmental problems. The seminar will involve extensive reading, class discussion, weekly synthesis writing assignments, and a collaborative group project on the subject of international environmental policy and governance. The course is designed for students with interests in areas such as environment and international relations, political ecology, development, and environmental policy and management.

Course Rotation: NYC: Fall, Even Years

Prerequisites: This course does not have a prerequisite.

ENV 297P Topics: Urban Environmental Geography (3 credits)

This course explores the structural, historical, and spatial geography of cities. We will apply a political ecology framework, which investigates the politics of environmental conditions. We will consider the historical development of cities, why they are located in particular places, and their social, political, economic, and ecological structures. Importantly, we will emphasize the urban as socio-ecological systems, both unto themselves and as nodes in broader networks that connect cities to global economies and suburban and rural resources. Students will learn to investigate urban structures, who benefits and who does not, and strategies for sustainable futures. We will pay particular attention to urban greenspaces and environmental justice. Students will produce a case study of an urban environmental challenge that emphasizes current research in environmental studies and sciences.

Prerequisites: This course does not have a prerequisite.

ENV 297R Topics: Nature in the Suburbs (3 credits)

This course will take a detailed look at the environment and ecology of Westchester County by focusing on the environmental issues facing the region and the organizations that are addressing these issues. It will also explore the biodiversity and richness of the natural areas in Westchester County. As a Civic Engagement course, participants will work alongside environmental professionals working to conserve the local environment, learning the skills needed for a career in this field. Participants should feel comfortable spending long periods outdoors in a variety of weather conditions as well as hiking through uneven terrain. The course is taught as a 13-day, field trip-based intensive during Summer Session I. As it is also a civic engagement course (AOK 1), an important component of the course is to complete 20 hours of volunteer work, which will be integrated into each class. The volunteer work will be physically demanding. Classes will run for 5-hours/session.

Course Rotation: PLV, Summer

Prerequisites: This course does not have a prerequisite.

ENV 297S Topics: Citizen Science (3 credits)

Citizen science, or “partnerships between scientists and non-scientists in which authentic data are collected, shared, and analyzed” (Jordan et al. 2012, p. 307) has become increasingly utilized for scientific research, credited for providing data across large spatial and temporal scales, promoting environmental awareness and scientific literacy, and potentially empowering and engaging local people in conservation (Toomey & Domroese 2013; Bonney et al. 2014; Stepenuck & Green 2015). As a result, environmental organizations across the world are activity incorporating citizen science research into their volunteer strategies, and using citizen science data to inform management decisions and influence environmental policy making. This course will take a detailed look at the history and evolution of citizen science, in particular with how it connects to the relationship between science and society and how it has evolved over time. It will examine the many different ways that people perceive and engage with science, particularly ecological science, through participatory research, boundary organizations, policies and laws. We will discuss concepts such as risk, vulnerability, and social-ecological resilience in order to explore different ways that urban, suburban, and rural communities relate to and engage with science. These are issues that are laden with power dynamics and inequalities, and course will deliberately seek to learn about the perspectives of women, minorities, and low-income communities who have spurred participatory science movements around the world.

Course Rotation: NYC & PLV

Prerequisites: This course does not have a prerequisite.

ENV 297T Topic: Soils and Society: The Critical Zone (3 credits)

Soil is the literal beginning and ending of terrestrial life. And yet, humans spend far more time, energy, and money exploring space than exploring the intricate worlds of soil that we need to sustain us. The purpose of this course is to introduce students to soil science and to consider societal interactions with soil from a variety of perspectives. Particular attention will be given to the ways in which soils are essential for promoting food justice, environmental justice, and climate justice, and to traditional ecological knowledge and Indigenous cosmologies. The course will invite numerous guest speakers, prioritizing local practitioners who work directly with soil in terms of urban farming, community gardening, and composting, as well as soil scientists from around the world. While environmental issues impacting soils will be covered, the course will emphasize the life-affirming potentials of soils, particularly when cultivated with care by people. Several class sessions will be spent conducting hands-on activities tending to soils and conducting field analyses. The dirt under your feet is alive. Welcome to the wonders of soil.

Course Rotation: NYC: Fall

Prerequisites: This course does not have a prerequisite.

ENV 300 Environmental Technology (3 credits)

This course will focus on introducing students to the use of technology in environmental monitoring. Students will learn how various technologies such as sensors and drones can be used to map environmental features, collect and analyze samples, and remotely identify plants and animals. Classes will consist of lectures on the uses of these technologies followed by activities where students will learn to operate the various technologies, and apply these technologies to address an environmental question.

Course Rotation: PLV: Spring; Odd Years

ENV 310 Environmental Policy and Sustainable Governance (3 credits)

This "blended" course provides students with a broad introduction to multi-level (from personal to local to state/national/global) environmental policymaking and governance. Exploring environmental and sustainability issues to all these levels, students will learn about the controversies and enactment of US environmental laws and standards as well as new ideas about how individuals, cities, neighborhoods, nation states and global environmental movement play a role in creating a more sustainable world.

Course Rotation: NYC & PLV: Fall

Prerequisites: This course does not have a prerequisite.

ENV 311 Development of Environmental Regulation (3 credits)

This class will be an introduction to the development and evolution of environmental laws in the United States. Students will get an historic perspective on how the current environmental laws came to be and will explore the charters of the federal agencies that administer environmental laws. There will also be significant discussion pertaining to the various types of environmental litigation such as allowing citizens suits.

Course Rotation: Fall, Even Years

Prerequisites: This course does not have a prerequisite.

ENV 315 Topics on Political Ecology (3 credits)

Political ecology is the study of the politics of environmental change and environmental conditions. Each section will focus on diverse political ecological topics and/or individual subfields (e.g., water, food, conservation, energy). Students will develop a working knowledge of political ecology, how it is applied to research, and the general ideas that political ecologists produce. Additionally, students will consider the nonhuman nature that make up socio-ecological systems, the science we use to study it, the policies we use to manage it, and the technologies we use to harness it. Students will learn relevant policy, science, and conflicts related to resource management, and the diverse social systems that result in conflict and cooperation.

Course Rotation: NYC, PLV; Spring - Even Years.

Prerequisites: This course does not have a prerequisite.

ENV 320 Environmental Assessment (3 credits)

This course is designed to enable Environmental Studies and Sciences students at Pace to participate in the development of a draft environmental impact statement in accordance with the New York State Environmental Quality Review Act (SEQRA). The student will develop critical skills by evaluating a variety of completed local draft environmental impact statements to understand the importance of scoping and identifying the most important aspects of a proposed project. For the major projects, each student will play a unique role, representing one or more disciplines integral to the complete environmental analysis of a project.

Course Rotation: NYC & PLV: Spring

Prerequisites: ENS 201 and ENS 202 with minimum grades of C.

ENV 344 Habitats of the Hudson Valley: Identification and Assessment (3 credits)

This field course will focus on teaching students the process of identifying and assessing local habitats. Students will identify, assess, and map habitats by collecting, analyzing, and interpreting data from local field sites. Classes will consist of lectures, field trips to observe habitats, and group activities/discussions. Students will learn to identify local ecological communities including indicator species as well as threats to these habitats. Participants should feel comfortable spending long periods outdoors in a variety of weather conditions as well as hiking through uneven terrain.

Course Rotation: PLV: FALL

Prerequisites: This course does not have a prerequisite.

ENV 380 Introduction to Research Methods (3 credits)

This course will guide students through the process of writing a research proposal relevant to the field. Students will learn how to do a literature review, frame a search question, develop a defined search strategy and then write a well-designed research proposal.

Course Rotation: Spring

Prerequisites: ENV 100 with a minimum grade of C.

ENV 390 Internship In Environmental Studies (3 credits)

Students will work two days in an environmental policy organization or in a position related to environmental policy in an organization. The students will meet weekly with a faculty member to discuss the assigned reading, the internship and to supervise the research and writing of the policy memos. The work supervisor will submit a written review of the student's performance and produce three policy memos related to the students work experiences in the organization and covering three environmental issues.

Course Rotation: Fall and Spring

Prerequisites: ENV 100 with minimum grade of C

ENV 395 Independent Study in Environmental Science (1-9 credits)

ENV 395A Independent Study in Environmental Studies (A) (1-9 credits)

ENV 395B Independent Study in Environmental Studies (B) (1-9 credits)

ENV 395C Independent Study in Environmental Studies (C) (1-9 credits)

ENV 396A Internship In Environmental Studies (3 credits)

Students will work two days in an environmental policy organization or in a position related to environmental policy in an organization. The students will meet weekly with a faculty member to discuss the assigned reading, the internship and to supervise the research and writing of the policy memos. The work supervisor will submit a written review of the student's performance and produce three policy memos related to the students work experiences in the organization and covering three environmental issues.

Course Rotation: Fall and Spring

Prerequisites: ENV 100 with minimum grade of C

ENV 497 Capstone Internship in Environmental Studies (3 credits)

In this course students will work with an external organization to address a specific issue in environmental studies. Working with a faculty mentor, students will arrange an internship with an external (non-Pace) organization within the environmental field. Students will then work closely with the external organization to develop and implement an environmental project that addresses a need of that organization. The Pace mentor will guide students to ensure that they meet the requirements of the course throughout the semester.

Course Rotation: NYC, PVL; Fall, Spring.

Prerequisites: ENV 380 with minimum grade of C

ENV 498 Mentoring Seminar (3 credits)

Students will select a faculty mentor and join an interdisciplinary research project. Restrictions/Requirements: Senior standing and permission of Department Chair.

Course Rotation: Fall and Spring.

Prerequisites: ENV 380 with minimum grade of C

ENV 499 Senior Year Experience in Environmental Issues (3 credits)

The preparation of a thesis is the cumulating project of the environmental studies program. Students will be encouraged to investigate topics of current importance, especially regional environmental problems, and produce a major research paper. Permission of Department Chair or Coordinator.

Course Rotation: Fall and Spring

Prerequisites: ENV 380 and ENV 498 with minimum grades of C