

# Environmental Studies

## Spring 2019 Course Offerings—Lehigh University

### **ES, EES 002-010 Introduction to Environmental Science** (NS)

Open only to freshmen and sophomores.

*CRN 17911 / 3 credits / STS / T, R 1:10 - 2:25 p.m. / Prof. Sahagian*

Focuses on natural and human-induced drivers and consequences of environmental change. Exploring options for mitigating and adapting to environmental change in ecosystems, physical and social systems, we will examine such topics as biogeochemical cycles, population pressure, ecosystem diversity, productivity and food security, energy, water resources, climate change, pollution, ozone, urban issues and sustainability. Stresses interactions and interrelationships, using a series of case studies.

### **ES, EES 004-061 The Science of Environmental Issues** (NS)

*CRN 17093 / 1 credits / STS / R 10:45 - 12:00 p.m. / Prof. Anastasio*

Analysis of current environmental issues from a scientific perspective. The focus of the course will be weekly discussions based on assigned readings.

### **ES, EES 004-060 The Science of Environmental Issues** (NS)

*CRN 17090 / 1 credits / STS / M 11:10 - 12:25 p.m. / Prof. Anastasio*

Analysis of current environmental issues from a scientific perspective. The focus of the course will be weekly discussions based on assigned readings.

### **SDEV 010-010 Challenges of Sustainable Development** (SS)

*CRN 19130 / 4 credits / ES, CBE Global / M, W 12:45 - 2:00 p.m. / Prof. Morris*

History and principles of sustainable development, including their application to projects in both rich and poor countries. Survey of current environmental, social and economic challenges to sustainable development. Philosophy and ethics of external intervention for poverty alleviation and green development, especially in poor societies. Integrated approaches to sustainable development practice, including the inter-relationship of the health sciences, natural sciences, social sciences and management.

### **ANTH 012-010 Human Evolution and Prehistory** (NS)

*CRN 17242 / 4 credits / M, W 12:45 - 2:00 p.m. / Prof. Mickel*

Introductory biological anthropology and prehistory. Adaptive functions of human culture and its relation to biological evolution. Mechanisms of evolution, non-human primate morphology and behavior, hominid fossil record, cultural beginnings, and survey of world prehistory.

### **EES 029-010 Human Health and the Environment** (NS)

*CRN 18884 / 3 credits / M, W, F 10:10 - 11:00 / Prof. Peters*

An introductory course that explores the connections between the environment and human health. Topics related to human health include climate change, energy production, genome-environment interactions, zoonotic disease, and drinking water chemistry. Introduction to the disciplines of geochemistry, ecology, geospatial data analysis, environmental epidemiology, toxicology, risk assessment, and exposure science. Course format includes a combination of lectures on fundamentals and seminar style topical readings.

### **ES, POLS 105-010 US Environmental Policy and Law** (SS)

Open only to Environmental Studies Majors.

*CRN 18039 / 4 credits / M, W 11:10 - 12:25 p.m. / Prof. Holland*

Analysis of the framework that has been established to protect the environment and promote sustainable growth. Focus on the roles of the different branches of the U.S. government and the relative responsibilities of state and local governments within this framework. Consideration of the political nature of environmental issues and the social forces influencing environmental protection in different areas of domestic environmental policy, such as climate change, toxic waste disposal and natural resources conservation.

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### **ES, POLS, HMS 110-010 Environmental Planning for Healthy Cities (SS)**

*CRN 18030 / 4 credits / T, R 9:20 - 10:35 p.m. / Prof. Beck-Pooley*

An introduction to the topic of environmental planning, the course will review the roles of citizens, other stakeholders, political interests, and local governments in determining the use of land; unpack the meaning of "sustainability;" and grapple with the challenge of balancing communities' demand for development with the need to protect valuable natural resources. Students will be introduced to examples of successful and unsuccessful instances of environmental planning both at home and abroad.

### **ES, ANTH 121-010 Environment and Culture (SS)**

*CRN 17871 / 4 credits / CBE Global / T, R 10:45-12:00 / Prof. Staff*

Impact of environment upon cultural variability and change. Comparative study of modern and past cultures and their environments as well as current theories of human/environmental interaction.

### **SDEV 201-010 Sustainable Development Solutions, I (SS)**

Instructor permission required

*CRN 16783 / 3 credits / ES / Prof. Morris*

Projects practicum in which cross-disciplinary teams of 5-6 students focus on understanding the context of a particular NGO amidst the broader social, economic, and scientific challenges to sustainable development. Analytic techniques for designing, implementing and evaluating projects. Nuts and bolts of development practice. Teams work on needs assessment related to their NGO's proposed goals and devise innovative solutions for implementing development projects. On-the-ground field experience, whether international or domestic, is required. Course fee may apply. Oral presentations and written reports. Prerequisite: SDEV 010 or permission of the Program Director.

### **SDEV 202-010 Sustainable Development Solutions, II (SS)**

Instructor permission required.

*CRN 19132 / 2-4 credits / ES / Prof. Morris*

Continuation and extension of projects begun in SDEV 201. Refine implementation strategies and develop project evaluation protocol. Oral presentations and written reports. Prerequisite: SDEV 201.

### **CEE 272-010 Environmental Risk Assessment**

*CRN 16739 / 2 credits / M, W 8:10 - 9:00 a.m. / Prof. Brown*

Effects of chemical releases on human health; ecological risks. Application of risk assessment methodology, including hazard identification, exposure assessment, toxicity assessment, and risk characterization. Accounting for uncertainty in data during risk management, risk reduction and implementation of regulations and environmental policy.

### **ES, HIST 315-011 American Environmental History (SS)**

*CRN 18845 / 3 credits / STS / M, W 2:35 - 3:50 p.m. / Prof. Smith*

Relationship between Americans and their natural environment from the colonial period to the present: impact of European settlement, attitudes toward wilderness, role of technological development, rise of preservation and conservation movements, establishment of national parks, recent environmental protection legislation.

### **ES, HIST 315-010 American Environmental History (SS)**

*CRN 18844 / 4 credits / STS / M, W 2:35 - 3:50 p.m. / Prof. Smith*

Relationship between Americans and their natural environment from the colonial period to the present: impact of European settlement, attitudes toward wilderness, role of technological development, rise of preservation and conservation movements, establishment of national parks, recent environmental protection legislation.

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## Spring 2019 Course Offerings—Lehigh University

### **ES, POLS 318-010 Mapping Data for Policymaking**

*CRN 18990 / 4 credits / T 7:10 - 10:00 p.m. / Prof. Beck-Pooley*

This course is designed to familiarize students with publicly available data sources and strategies for both accessing, analyzing, and mapping that information – all in a way that would be accessible to community stakeholders and political officials and useful to the policy making process. Such strategies require working with Microsoft Excel and Access, and ArcMap. The class will introduce students to all three of these programs and provide ample opportunities for students to use them to manipulate, synthesize and report on people- and place-based data. This semester, the class will carry out citywide and neighborhood-based analyses of Allentown, PA.

### **GS, SOC 319-010 The Political Economy of Globalization** (SS)

*CRN 17210 / 4 credits / WI (Writing Intensive) / M, W 12:45 - 2:00 p.m. / Prof. Austin*

This course studies the relationship among economic, political and cultural forces in an era of globalization. Focus is on how global capitalism, the world market and local economics shape and are shaped by social, cultural and historical forces. Topics include political and cultural determinants of trade and investment; culture and the global economy; global capitalism, especially studied through the lens of culture; globalization and patterns of economic growth; crosscultural study of consumerism; poverty and inequality; the interplay of foreign and domestic economic policy; international economic organizations, such as the World Trade Organization, the International Monetary Fund, and the World Bank, and globalization and national development.

### **ES, POLS, HMS 320-010 Food Justice in Urban Environments** (SS)

*CRN 18999 / 4 credits / T, R 10:45 - 12:00 p.m. / Prof. Beck-Pooley*

This course will review how urban agriculture and city greening programs and policies are part of a growing movement working to strengthen neighborhoods, promote healthier living, and create more localized and sustainable food economies. This class will explore research and readings from multiple disciplines on these programs and policies, and will also delve into individual case studies that illustrate how efforts to improve food access, beautify vacant land, and reduce farm-to-table distances get creatively and successfully combined.

### **ES, JOUR, HMS, STS 323-010 Health and Environmental Controversies** (SS)

Restricted to ES majors/minors.

*CRN 17542 / 4 credits / T, R 1:10 - 2:25 p.m. / Prof. Friedman*

Exploration of health and environmental controversies from the perspectives of scientific uncertainty and mass media coverage. Examines genetic engineering, biotechnology, environmental health risks, and nanotechnology. Includes discussion of ethical and social responsibilities and interactions with the public.

### **ES, POLS, 328-010 U.S. Politics and the Environment** (SS)

*CRN 18988 / 4 credits / T, R 2:35 - 3:50 p.m. / Prof. Wurth*

An examination of contemporary American politics and policy dealing with environmental issues. Current controversies in the legislative and regulatory areas will be covered to examine environmental issues and the political process. Significant portions of the course readings will be taken from government publications.

### **ES, PHIL 333-010 International Environmental Law & Philosophical-Policy Design** (HU)

Restricted to ES ad PHIL majors only. All others need department permission.

*CRN 17796 / 4 credits / WI (Writing Intensive) / M 4:10 - 7:00 p.m. / Prof. Gillroy*

This course studies international law and the natural environment assuming that the superficial legal structure and policy dilemmas of globally regulating the natural world are the result of the more essential philosophical ideas and concepts that have created both the international legal system and humanity's evolving interrelationship with nature. Learning the current structure of the international-environmental legal system we shall comparatively apply theory to practice to both explain existing law and justifying policy change.

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### **ES, TLT 367-010 Environmental Education**

*CRN 17009 / 3 credits / T 7:10 - 10:00 p.m. and 4/6 & 4/27 9:00 a.m. - 5:00 p.m. / Prof. Bodzin*  
Introductory environmental education course designed to prepare students to implement environmental education opportunities in formal and non-formal education settings. Topics include history and philosophy of environmental education, environmental laws and regulations, GIS, environmental issues and decision making, curriculum integration and environmental education teaching methodologies. This is a Web enhanced course containing both online and fieldwork components

### **ES, EES 402-010 Scientific Foundations for Environmental Policy Design**

*CRN 16795 / 3 credits / W 4:10 - 7:00 p.m. / Prof. Sahagian*

This course explores the science behind the environmental issues that bear on the policy process at local, national and global scales. It delves into the science of selected environmental issues that have either arisen from anthropogenic activities, or that impact social systems, or that help policy makers understand the consequences of different policy options. The course will consist of readings and discussions of timely topics and one major project.

### **ES, SOC 404-010 Socio-cultural Foundations of Environmental Policy**

*CRN 17233 / 3 credits / T 4:10 - 7:00 p.m. / Prof. Casagrande*

This course is based on the premise that social and ecological sustainability require new policy approaches. Drawing on social, organizational, and behavioral theory, students will learn techniques for analyzing and critiquing existing environmental policies and designing more effective policies. Case studies highlight how cultural values, social norms, public opinion and politics shape policies and their outcomes. We examine the entire policy process from how environmental problems are defined, to how organizations implement policies and how policies are evaluated.

### **SOC 411-010 Advanced Research Methods, Part I: Quantitative**

Prerequisite SOAN 111.

*CRN 17360 / 3 credits / W 4:10 - 7:00 p.m. / Prof. Zhang*

Study of quantitative methods of data collection and analysis, measurement and research design issues at an advanced level.

### **SOC 412-010 Adv Research Methods, Part II, Qualitative**

*CRN 17361 / 3 credits / T 4:10 - 7:00 p.m. / Prof. Heather Johnson*

Study of a variety of qualitative methods for social research and of qualitative data analysis techniques.

### **ES, POLS 418-010 Mapping Data for Policymaking**

*CRN 18927 / 3 credits / T, 7:10 - 10:00 p.m. / Prof. Beck-Pooley*

This course is designed to familiarize students with publicly available data sources and strategies for both accessing, analyzing, and mapping that information – all in a way that would be accessible to community stakeholders and political officials and useful to the policy making process. Such strategies require working with Microsoft Excel and Access, and ArcMap. The class will introduce students to all three of these programs and provide ample opportunities for students to use them to manipulate, synthesize and report on people- and place-based data. This semester, the class will carry out citywide and neighborhood-based analyses of Allentown, PA.

### **ES, POLS 420-010 Food Justice in Urban Environments**

*CRN 18997 / 3 credits / T, R 10:45 - 12:00 p.m. / Prof. Beck-Pooley*

This course will review how urban agriculture and city greening programs and policies are part of a growing movement working to strengthen neighborhoods, promote healthier living, and create more localized and sustainable food economies. This class will explore research and readings from multiple disciplines on these programs and policies, and will also delve into individual case studies that illustrate how efforts to improve food access, beautify vacant land, and reduce farm-to-table distances get creatively and successfully combined.

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### **ES 433-010 International Environmental Law & Philosophical-Policy Design**

Open only to EP students

*CRN 17797 / 3 credits / WI (Writing Intensive) / M 4:10 - 7:00 p.m. / Prof. Gillroy*

This course studies international law and the natural environment assuming that the superficial legal structure and policy dilemmas of globally regulating the natural world are the result of the more essential philosophical ideas and concepts that have created both the international legal system and humanity's evolving interrelationship with nature. Learning the current structure of the international-environmental legal system we shall comparatively apply theory to practice to both explain existing law and justifying policy change.

For more information contact:

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