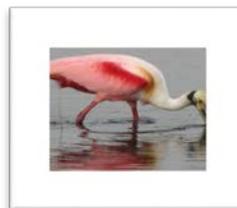


2015 Fall Course Offerings

Environmental Studies

Graduate Director: Donald Morris

Undergraduate Director: Al Wurth



Graduate certificate, major and minor declaration forms are available in the Office of Interdisciplinary Programs.

ES, EES, GCP 002-10 Introduction to Environmental Science 3 credits (NS)

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. **Professor Sahagian; T, R 2:35 - 3:50 p.m.**

ES, EES 004-10 The Science of Environmental Issues 1 credits (NS)

Analysis of current environmental issues from a scientific perspective. The focus of the course will be weekly discussions based on assigned readings. Pre- or co-requisite: introductory-level course in EES. **Professor Anastasio**

Section 10 - M 11:10 - 12:25 p.m.

Section 11 - W 11:10 - 12:25 p.m.

Section 12 - F 1:10 - 2:25 p.m.

SDEV 010 Challenges of Sustainable Development 4 credits (SS) *ES attribute, CBE Global*

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.

Professor Orrs; Section 10 - T, R 1:10 - 2:25 p.m. Section 11 - T, R 2:35 - 3:50 p.m.

POLS, ES 107-10 The Politics of the Environment 4 credits (SS)

A survey of the major environmental, resource, energy and population problems of modern society, focusing on the United States. The politics of people's relationship with nature, the political problems of ecological scarcity and public goods, and the response of the American political system to environmental issues. **Professor Wurth; T, R 2:35 - 3:50 p.m.**

ES, ANTH 121-10 Environment and Culture 4 credits (SS), *CBE Global*

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. **Professor Gatewood; M, W, F 12:10 - 1:00 p.m.**

ES 123-10 Sustainability in Action I 1-4 credits (ND) *Instructor permission required*

First half of a year-long experiential learning program for students to engage with sustainability in both general theory and applied practices. Students will learn the political, economic and social effects of changing earth systems through a global, national and local lens. Students will explore the multitude of challenges posed by increasing natural resource consumption, inequitable distribution of wealth and rapid uneven globalization. Most importantly, students will engage the Lehigh community and broader community in developing and implementing practical solutions to creating a more sustainable and just world. Offered in coordination with the Campus Eco-Reps program. **Professor Wurth**

ES, JOUR 125-10 Environment, the Public and the Mass Media 4 credits (SS) *(Writing Intensive) Instructor permission required*

Extensive exploration of local, national and international environmental problems and their social, political and economic impacts. Analysis of mass media coverage of complex environmental issues and the media's effects on public opinion and government environmental policies. Examination of environmental journalism principles and practices in the United States and around the world. **Professor Friedman; T, R 10:45 - 12:00 p.m.**

ANTH 145-10 Human Evolution 4 credits (NS) *Pre-requisite ANTH 001 waived for ES majors*

Principles of biological anthropology focusing on the evolution of the human species. Topics include evolutionary theory, nonhuman primate diversity and behavior, the relationship between biology and behavior in evolutionary terms, the hominid fossil record, and genetic variability among contemporary human populations. **Professor Gatewood; M, W, F 10:10 - 11:00**

ES 223-10 Advanced Sustainability in Action I 1-4 credits (ND) *Instructor permission required*

Leadership and coordination of Sustainability in Action projects and activities for students in ES 123. Experienced students who have completed the year-long Sustainability in Action sequence (ES 123 and ES 124) continue in course coordination role. Prerequisites, ES 123 and ES 124. Offered in coordination with the Campus Eco-Reps Program. May be repeated for credit. **Professor Wurth**

ES, POLS 305/405-10 Seminar: Urban Policy and Planning 3-4 credits (SS)

This course is an introductory planning course, with an emphasis on housing and community development policy. It will examine historical and contemporary aspects of urban politics; the economic, demographic, and spatial evolution of American cities; and various urban problems, such as the spatial mismatch between people and jobs, housing quality and affordability, and residential segregation. Finally, the course will review how planners have addressed conditions in cities and regions over time. **Professor Beck-Pooley; M, W 11:10 - 12:25 p.m.**

ES, SDEV 310-10/ES 410 -10 Foundations of Sustainable Development Practice 3-4 credits (SS)

The broad goal of this course is to introduce students to the foundations of key sectoral and thematic knowledge for important challenges to sustainable development: food and nutritional security, social service delivery, energy policy, water resource management, urbanization, infrastructure, human rights, biodiversity, adaption to climate change, mitigating GHGs, sustainable business, good governance, and more. Through the Global Classroom, an approach pioneered by Columbia University and the Global Masters of Development Practice Association (<http://globalmdp.org/>), we will do this together virtually with academic partners from around the world. **Professor Orrs; T, R 7:55 - 9:10 a.m.**

ENTP, POLS 310-10 Social Entrepreneurship: How to Change the World 4 credits (SS)

The marketplace does not always have to be harsh. Social entrepreneurship uses market-based approaches to address needs and solve problems in our society. Students in this seminar-style course will learn how to identify community problems, convince the community that it is a problem worth solving, design the response, and implement it. Hands-on projects. Junior standing or instructor permission required. **Professor Jennings; T 7:10 – 10:00 p.m.**

ES, HIST 315 American Environmental History (SS) Section 10 - 4 credits (*undergraduate section*); Section 11 - 3 credits (*graduate section*)

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. **Professor Cutcliffe; T, R 1:10 - 2:25 p.m.**

ES, POLS 355-10/455-10 Environmental Justice & The Law 3-4 credits (SS) Prerequisite: ES or POLS 105.

This course explores the various ways in which environmental law and policy can have discriminatory effects. It examines the rise and evolution of the environmental justice movement, and the impact of environmental justice claims on administrative rulemaking at both the state and federal level. Reviewing the history of case law concerning environmental justice suits filed under the 1964 Civil Rights Act, it also examines the future of environmental justice in environmental law and policy. **Professor Holland; T 4:10 - 7:00 p.m.**

CEE, EES 379 Environmental Case Studies 3-4 credits (NS) Prerequisite: EES 022, CEE 375 or CHE 375.

Case studies will be used to explore the impact of politics, economics, society, technology, and ethics on environmental projects and preferences. Environmental issues in both affluent and developing countries will be analyzed. Multidisciplinary student teams will investigate site characterization; environmental remediation design; environmental policy; and political, financial, social, and ethical implications of environmental projects.

Professor Jellison, M, W 12:45 – 2:00 p.m.

AAS, WGSS, SDEV 397-10 Women, Engineering and Sustainable Development in Africa 4 credits (SS) *ES attribute*

This course embraces multi-disciplinary approaches in Environmental Engineering and Africana Studies. The course will engage students on issues of sustainable development and explore various green energy and environmental initiatives in Africa. Students will learn and develop models for simple, culturally competent, and economically feasible technologies, either adopted or developed, that can enhance the communal, infrastructural and individual capacity for agricultural communities in rural Africa to alleviate poverty. Through research, situational/case study analysis and several discussion-based approaches, we will examine women's roles and various gendered issues and challenges that impede the economic advancement and environmental conservation that is vital to development in Africa. **Professor Dzidzor Darku; M, W 12:45 - 2:00 p.m.**

***CANCELED* ENGL 398 Representations of Environmental Crisis in Contemporary U.S. Literature** (HU) *ES attribute* Section 10 - 4 credits (*undergraduate section*); Section 11 - 3 credits (*graduate section*) This course examines fiction published after 1945 that engages with dominant national and international discussions about human impact on the environment, including debates about nuclear and other forms of waste disposal, pollution, sustainable development, as well as resource usage, management and allocation. **Professor Foltz; T,R 2:35 – 3:50 p.m.**

ES 401-10 Philosophical-Policy and Environmental Legal Design 3 credits (ND) *Instructor permission required*

A basic class for graduate students on the idea of policy design, as opposed to standard economic analysis of public policy and its application to various domestic and international environmental dilemmas. The course will also introduce the idea of Philosophical-Policy, or the use of integrated philosophical systems to justify specific policy design arguments, through the use of two distinct theoretical paradigms that focus on, specifically, the integrity of the natural environment and the capabilities of humans in relation to ecosystems. **Professor Gillroy; M 4:10 - 7:00 p.m.**

POLS 402-10 Methods of Policy Analysis 3 credits (ND) *Instructor permission required*

Approaches or models used to analyze public policy. Assumptions underlying each model and critiques of each; may include a number of the following approaches: institutional, process, rational, group, incremental, and/or elite. **Professor Ochs; W 4:10 – 7:00 p.m.**

ES, POLS 405-10 Seminar: Urban Policy and Planning 3 credits (ND)

This course is an introductory planning course, with an emphasis on housing and community development policy. It will examine historical and contemporary aspects of urban politics; the economic, demographic, and spatial evolution of American cities; and various urban problems, such as the spatial mismatch between people and jobs, housing quality and affordability, and residential segregation. Finally, the course will review how planners have addressed conditions in cities and regions over time. **Professor Pooley; M, W 11:10 - 12:25 p.m.**

SOC 410 Statistics for Sociological Inquiry 3 credits (ND)

Principles of statistical inference including hypothesis testing and analysis of variance. Covers univariate and multivariate techniques, including probability, correlation, test statistics, and regression. Emphasis is on the choice of proper approaches to answer research questions and the interpretation of analysis results. **Professor Zhang; T 4:10 - 7:00 p.m.**

SOC, WGSS 441-10 Women and Health 3 credits *Instructor permission required*

Relationships of women to the medical system. Influence of medicine on women's lives and the impact of the women's movement on health care. Prerequisite: ANTH 011, SOC 001, SOC 005, SOC 021, or PSYC 021 **Professor Lasker; T, R 1:10 - 2:25 p.m.**

POLS 468-10 Political Economy 3 credits (ND) *ES attribute*

Relationship of democratic politics to government and market, and significance of economic power in the American polity. Economic rationale for the place of the market and economic institutions in polity. Emphasis on information in comparison of economic approaches to public policy and organization (public goods, market failure, and collective action) with traditional political science approaches (group mobilization and conflict, non-decisions and symbolic action). **Professor Wurth; T, R 10:45 - 12:00 p.m.**

Summer Course Offering

ES, POLS 398-10/498-10 Urban Agricultural Policy, Planning and Practice 4, 3 credits (SS)

An urban environmental planning and policy course in which students explore an issue affecting the local community, evaluate current policy responses and possible alternatives, and present recommendations to public officials, local organizations, and community members. Student research and analysis will draw on primary and secondary data, as well as feedback from conducting individual interviews, focus groups, and community meetings. Prior projects include determining how Bethlehem's new City Revitalization improvement Zone (CRIZ) might best benefit the South Side of Bethlehem, PA.

Professor Pooley; M, W 4:00 – 6:50 p.m. (Summer session II)

TLT 368-010, D10, D11 Teaching and Learning with Geospatial Tools 3 credits

Exploration of geospatial tools, including but not limited to global positioning systems (GPS), geographic information systems (GIS), and related visualization tools (e.g. Google Earth). Application of these tools and techniques to instructional settings, including appropriate pedagogy and assessment.

Professor Hammond, June 25th – July 3rd, TWRFSU, 8:30-12:50 p.m.

Internships, Independent Studies and Research Courses Offered Summer and Fall 2015

ES 093 Freshmen Supervised Internship in the Environmental Initiative 1-4 credits (SS, HU, NS or ND) *Instructor permission required* Experiential learning opportunities supervised by EI faculty including fieldwork, data collection or analysis, literature review, and information management. Consent of supervising faculty is required. The experience may be related to either environmental studies or environmental science depending upon the discipline of supervising faculty member.

ES 131 Internship 1-2 credits (ND) *Instructor permission required*

Practical experience in the application of environmental studies for both on- and off-campus organizations. Course is designed to provide credit for supervised experiential learning experiences. May be repeated for credit up to four credits.

ES 181 Independent Study 1-4 credits (HU, SS) *Instructor permission required*

Directed readings or research on an Environmental Studies topic. May be repeated for credit up to four credits.

ES 195-10 Practicum in Environmental Studies 1-4 credits (ND) *Instructor permission required*

Supervised collaborative work on local, state or national environmental issues.

SDEV 202-10 Sustainable Development Solutions, II 2-4 credits (SS) *ES attribute*

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.

Professor Orrs

SDEV 203-10 Research in Sustainable Development 2-4 credits (SS) *ES attribute*

Students will work on sustainable development research projects not involving field work. May be repeatable for a maximum of 4 credits. Prerequisite: SDEV 010 and instructor permission required.

Professor Orrs

ES 293 Supervised internship in the Environmental Initiative 1-4 credits (NS, HU, SS) *Instructor permission required*

Experiential learning opportunities supervised by EI faculty including fieldwork, data collection or analysis, literature review, and information management. The experience may be related to either environmental studies or environmental science depending upon the discipline of supervising faculty member.

ES 371 Special Topics 1-4 credits (HU, SS) *Instructor permission required*

Intensive, research-oriented study of a subject or issue in Environmental Studies not covered in other courses.

SDEV 372-10 Independent Study in Sustainable Development 1-4 credits (SS/HU) *ES attribute*

Opportunity for students to pursue individual sustainable development projects or continue work begun in SDEV 201/202. May not count towards minor's credit requirements. Prerequisite: SDEV 010 and department permission required.

Professor Orrs

ES 391 Honors Thesis 1-4 credits (HU,SS) *Instructor permission required*

Directed undergraduate research thesis required of students who apply and qualify for graduation with program honors.

ES 480 Internship in Environmental Policy 3 credits (ND) *Instructor Permission Required*

Students will gain practical experience working with governmental or non-governmental organizations or public officials formulating and/or implementing environmental policies at local, regional, national or international levels. Requires submission of a formal proposal drafted in collaboration with a faculty advisor and the professional mentor who will oversee the student's internship.

ES 483 Independent Study 1-3 credits *Instructor permission required*

ES 490 Thesis 1-6 credit *Instructor permission required*