YALE COLLEGE
ENVIRONMENTAL
STUDIES

SPRING 2017 COURSE OFFERINGS:

EXPLORE NEW ISSUES, CHALLENGES, AND PERSPECTIVES

Table of Contents

New EVST Courses

YALE COLLEGE
ENVIRONMENTAL
STUDIES

Chemistry for the Environment (EVST 180)

Monday/Wednesday | 11:35am – 12:50pm | WTS B60 Professor

Paul Anastas

Fills the Chemistry Prerequisite for the EVST BA Program

Exploration of the fundamentals of chemistry, including atoms, molecules, chemical reactions, stoichiometry, chemical/physical properties, and periodic table trends. How chemistry can address global human health and environmental issues through development of appropriate solutions using green chemistry approaches.

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STUDIES

Ecology & the Future of Life (EVST 273)

Monday/Wednesday | 1:30pm – 2:20pm | WTS A60

Professor Oswald Schmitz

Study of sustainability in a new epoch of human domination of Earth, known as the Anthropocene. Students will learn to think critically and construct arguments about the ecological and evolutionary interrelationship between humans and nature and gain insight on how to combine ethical reasoning with scientific principles, to ensure that species and ecosystems will thrive and persist.

EVST Prerequisite, Core and Common Concentration Courses

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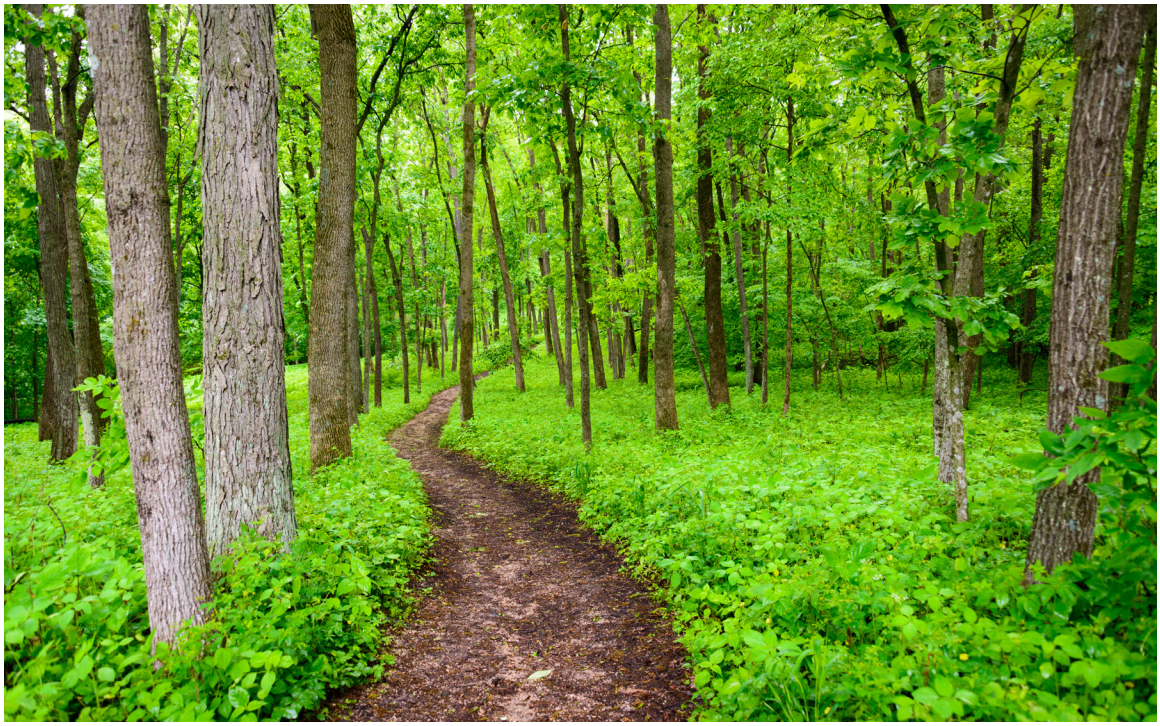
STUDIES

Global Environmental History (EVST 226)



Tuesday/Thursday | 9:00am – 10:15am | KRN 321

Professor Harvey Weiss

The dynamic relationship between environmental and social forces from the Pleistocene glaciations to the Anthropocene present. Pleistocene extinctions; transition from hunting and gathering to agriculture; origins of cities, states, and civilization; adaptations and collapses of Old and New World civilizations in the face of climate disasters; the destruction and reconstruction of the New World by the Old. Focus on issues of adaptation, resilience, and sustainability, including forces that caused long-term societal change.

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STUDIES

Global Environmental Governance (EVST 245)

Monday/Wednesday | 4:00pm – 5:15pm | WTS A51

Professor Benjamin Cashore

The development of international environmental policy and the functioning of global environmental governance. Critical evaluation of theoretical claims in the literature and the reasoning of policy makers. Introduction of analytical and theoretical tools used to assess environmental problems. Case studies emphasize climate, forestry, and fisheries.

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ENVIRONMENTAL
STUDIES

Environmental Politics and Law (EVST 255)

Tuesday/Thursday | 10:30am – 11:20am | YUAG AUD

Professor John Wargo

Exploration of the politics, policy, and law associated with attempts to manage environmental quality and natural resources. Themes of democracy, liberty, power, property, equality, causation, and risk. Case histories include air quality, water quality and quantity, pesticides and toxic substances, land use, agriculture and food, parks and protected areas, and energy.

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STUDIES

Geographic Information Systems (EVST 290)

Tuesday | 9:25am – 11:15am | WTS A46

Professor Dana Tomlin

A practical introduction to the nature and use of geographic information systems (GIS) in environmental science and management. Applied techniques for the acquisition, creation, storage, management, visualization, animation, transformation, analysis, and synthesis of cartographic data in digital form.

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ENVIRONMENTAL
STUDIES

Political Ecology (EVST 285)

Tuesday | 1:30pm – 3:20pm | WTS A72

Professor Amity Doolittle

Study of the relationship between society and the environment. Global processes of environmental conservation, development, and conflicts over natural resource use; political-economic contexts of environmental change; ways in which understandings of nature are discursively bound up with notions of culture and identity.

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ENVIRONMENTAL
STUDIES

Economics of Natural Resources (EVST 340)

Monday/Wednesday | 10:30am – 11:20am | SSS 114

Professor Robert Mendelsohn

Microeconomic theory brought to bear on current issues in natural resource policy. Topics include regulation of pollution, hazardous waste management, depletion of the world's forests and fisheries, wilderness and wildlife preservation, and energy planning.

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STUDIES

Yellowstone and Global Change (EVST 348)

Wednesday | 2:30pm – 4:20pm | S32

Professor Susan Clark

Introduction to sustainability issues in natural resource management and policy, using the Greater Yellowstone ecosystem as a case study. Topics include large carnivores, wildlife conservation, parks, energy, and transportation.

Additional EVST Offerings

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STUDIES

Energy, Technology and Society (EVST 100)

Monday/Wednesday | 2:30pm – 3:45pm | HLH17 115

Professors Daniel Prober and Michael Oristaglio

The technology and use of energy. Impacts on the environment, climate, security, and economy. Application of scientific reasoning and quantitative analysis. Intended for non?science majors with strong backgrounds in math and science.

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ENVIRONMENTAL
STUDIES

South & East Asian Religions and Ecology (EVST 132)

Wednesday | 4:00pm – 5:15pm

Professors John Grim and Mary Evelyn Tucker

This course introduces students to both South and East Asian religious traditions and their intersection with ecology. The first half of the course will introduce the South Asian religious traditions of Hinduism and Buddhism and briefly Jainism. The second half of this course will explore the East Asian religious traditions of Confucianism, Daoism and East Asian Buddhism in relation to the emerging field of religion and ecology. This overview course identifies developments in the traditions that highlight their ecological implications into the contemporary period.

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ENVIRONMENTAL
STUDIES

The History of Food (EVST 189)

Tuesday/Thursday | 10:30am – 11:20am | DL 220

Professor Paul Freedman

The history of food and culinary styles from prehistory to the present, with a particular focus on Europe and the United States. How societies gathered and prepared food. Changing taste preferences over time. The influence of consumers on trade, colonization, and cultural exchange. The impact of colonialism, technology, and globalization. The current food scene and its implications for health, the environment, and cultural shifts.

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STUDIES

Global Catastrophe Since 1750 (EVST 211)

Monday/Wednesday | 10:30am – 11:20am | WLH 119

Professor William Rankin

A history of the geological, atmospheric, and environmental sciences, with a focus on predictions of global catastrophe. Topics range from headline catastrophes such as global warming, ozone depletion, and nuclear winter to historical debates about the age of the Earth, the nature of fossils, and the management of natural resources. Tensions between science and religion; the role of science in government; environmental economics; the politics of prediction, modeling, and incomplete evidence.

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ENVIRONMENTAL
STUDIES

Politics of the Environment (EVST 247)

Wednesday | 1:30pm – 3:20pm | RKZ 301

Professor Peter Swenson

Historical and contemporary politics aimed at regulating human behavior to limit damage to the environment. Goals, strategies, successes, and failures of movements, organizations, corporations, scientists, and politicians in conflicts over environmental policy. Focus on politics in the U.S., including the role of public opinion; attention to international regulatory efforts, especially with regard to climate change.

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ENVIRONMENTAL
STUDIES

Wilderness and the North American Imagination (EVST 258)

Tuesday | 1:30pm – 3:20pm | WTS A70

Professor Eric Rutkow

The idea of wilderness in American history, art, literature, and public policy. Authors include Henry David Thoreau, Nathaniel Hawthorne, John Muir, Aldo Leopold, John McPhee, and Ramachandra Guha. A class dinner and field trip are held during the term.

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ENVIRONMENTAL
STUDIES

Space, Place and Landscape (EVST 304)

Wednesday | 1:30pm – 3:20pm | WLH 011

Professor Laura Barraclough

Survey of core concepts in cultural geography and spatial theory. Ways in which the organization, use, and representation of physical spaces produce power dynamics related to colonialism, race, gender, class, and migrant status. Multiple meanings of home; the politics of place names; effects of tourism; the aesthetics and politics of map making; spatial strategies of conquest. Includes field projects in New Haven.

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ENVIRONMENTAL
STUDIES

Advanced Science Communications (EVST 312)

Tuesday | 2:30pm – 4:20pm | HLH17 113

Professor Paul Lussier

Exploration of advanced theoretical frameworks for the practice of science communication. Focus on methods that speak to stakeholder values across government and civil society. Application of strategies to several case projects in partnership with professionals across multiple sectors.

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ENVIRONMENTAL
STUDIES

Food and Documentary (EVST 352)

Wednesday | 2:30pm – 4:20pm | WLH 013

Professor Ian Cheney

Survey of contemporary public debates and current scientific thinking about how America farms and eats explored through the medium of documentary film. Includes a brief history of early food and agrarian documentaries, with a focus on twenty-first century films that consider sustainable food. An additional screening time will be on Tuesday evenings, 7:00 - 9:00.

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STUDIES

Observing Earth from Space (EVST 362)

Tuesday/Thursday | 9:00am – 10:15am | ESC 110

Professor Xuhui Lee

A practical introduction to satellite image analysis of Earth's surface. Topics include the spectrum of electromagnetic radiation, satellite-borne radiometers, data transmission and storage, computer image analysis, the merging of satellite imagery with GIS and applications to weather and climate, oceanography, surficial geology, ecology and epidemiology, forestry, agriculture, archaeology, and watershed management.

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ENVIRONMENTAL
STUDIES

Documentary & the Environment (EVST 366)

Tuesday/Thursday | 11:35am – 12:50pm | WLH 120

Professor Charles Musser

Survey of documentaries about environmental issues, with a focus on Darwin's Nightmare (2004), An Inconvenient Truth (2006), Food, Inc. (2009), GasLand (2010), and related films. Brief historical overview, from early films such as The River (1937) to the proliferation of environmental film festivals. Screenings on Wednesday 7:00 - 10:00.

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STUDIES

Observing & Measuring Behavior (EVST 377)

Tuesday | 9:25am – 11:15am | SA10 105

Professor Eduardo Fernandez-Duque

Survey of theoretical issues and practical methods relevant to the study of animal and human behavior, primarily in the wild. Topics include research design, behavioral and ecological sampling protocols, basic methods for data analysis, including simple descriptive and analytical statistics, and widely-used technologies that facilitate the study of behavior, such as radiotelemetry. Working around a specific research question, students design their own behavioral study.

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STUDIES

Agriculture: Origins, Evolution and Crisis (EVST 399)

Thursday | 3:30pm – 5:20pm | S41C

Professor Harvey Weiss

Analysis of the societal and environmental drivers and effects of plant and animal domestication, the intensification of agroproduction, and the crises of agroproduction: land degradation, societal collapses, sociopolitical transformation, sustainablity, and biodiversity.

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ENVIRONMENTAL
STUDIES

Biotech & the Developing World (EVST 415)

Tuesday/Thursday | 1:00pm – 2:15pm | WLH 203

Professor Anjelica Gonzalez

Study of technological advances that have global health applications. Ways in which biotechnology has enhanced quality of life in the developing world. The challenges of implementing relevant technologies in resource-limited environments, including technical, practical, social, and ethical aspects.

EVST BA Program Checklist

August 2016

Yale College Environmental Studies: BA Program Checklist

Name: _____

PRE-REQUISITES

1. Biology (1-2 courses, 1 credit)

_____ AP Biology credit on Yale transcript; or,
_____ BIOL 101 (Biochemistry and Biophysics) and 102 (Prin of Cell Bio and Memb Phys); or,
_____ G&G 125 (History of Life); or,
_____ MCDB 123 (Genes and Environment)

2. Chemistry (1 course, 1 credit)

_____ AP Chemistry credit on Yale transcript; or,
_____ EVST 180 (Chemistry for the Environment); or,
_____ EVST 344 (Aquatic Chemistry); or,
_____ CHEM 161 (General Chemistry I); or,
_____ CHEM 163 (Comprehensive University Chemistry I); or,
_____ CHEM 118 or CHEM 167, (Quantitative Foundations of Chemistry or Comp University Chem II); or
_____ One semester of chemistry above 118

3. Natural Science Laboratory or Field Course (1 course, .5–1 credit)

_____ One semester of chemistry lab (e.g. CHEM 116L, 117L or higher); or,
_____ One semester of another natural science laboratory or field course (e.g. EVST 202L, EVST 221, EVST 234L, EVST 244, EVST 290, EVST 362 or G&G 126L) *Specify Choice:* _____

4. Math, Physics, or Statistics (1 course, 1 credit)

_____AP Math credit on Yale transcript; or,
_____AP Physics credit on Yale transcript; or,
_____MATH 112 (Calculus of Functions) or higher (excluding MATH 190); or,
_____PHYS 170 (Introductory Physics) or higher; or,
_____STAT 101-106 (Introductory Statistics) or higher

REQUIREMENTS

1. Core Courses Group A (2 courses, 2 credits)

_____EVST 120 (American Environmental History); or,
_____EVST 226 (Global Environmental History); or,
_____EVST 255 (Environmental Politics and Law); or,
_____EVST 345 (Environmental Anthropology); or,
_____EVST 340 (Economics of Natural Resources)

2. Core Courses Group B (2 courses, 2 credits)

_____EVST 201 (Atmospheres and Oceans); or,
_____EVST 223 (General Ecology); or,
_____EVST 200 (Earth System Science); or,
_____EVST 242 (Ecosystems and Landscapes)

3. Area of Concentration: (6 courses, 6 credits)

As decided in consultation with DUS, 1 must be a 200 level or above research methods and writing focused course.

Concentration Title: _____

Concentration Courses: 1. _____ 4. _____
2. _____ 5. _____
3. _____ 6. _____

4. Senior Colloquium: (1-2 courses, 1-2 credits)

_____EVST 496 (Two-term Senior Colloquium; One-term with DUS permission only)

5. Senior Thesis Topic

Topic: _____ Advisor: _____

EVST BS Program Checklist

August 2016

Yale College Environmental Studies: BS Program Checklist

Name: _____

PRE-REQUISITES

1. Biology (2-4 courses, 2 credits)

_____ BIOL 101 (Biochemistry and Biophysics) and 102 (Prin of Cell Bio and Memb Phys);
_____ BIOL 103 (Genes and Development) and 104 (Ecology and Evolutionary Bio)

2. Chemistry (2 courses, 2 credits)

_____ CHEM 161 and CHEM 165 (General Chemistry I and II); or,
_____ CHEM 163 and CHEM 167 (Comprehensive University Chemistry I and II)

3. Natural Science Laboratory or Field Course (1 course, .5–1 credit)

_____ One semester of chemistry lab (e.g. CHEM 116L, 117L or higher); or,
_____ One semester of another natural science laboratory or field course (e.g. EVST 202L, EVST 221, EVST 234L, EVST 244, EVST 290, EVST 362 or G&G 126L) *Specify Choice:* _____

4. Math, Physics, or Statistics (1 course, 1 credit)

_____MATH 112 (Calculus of Functions) or higher (excluding MATH 190); or,
_____PHYS 170 (Introductory Physics) or higher; or,
_____STAT 101-106 (Introductory Statistics) or higher

REQUIREMENTS

1. Core Courses Group A (2 courses, 2 credits)

_____EVST 120 (American Environmental History); or,
_____EVST 226 (Global Environmental History); or,
_____EVST 255 (Environmental Politics and Law); or,
_____EVST 345 (Environmental Anthropology); or,
_____EVST 340 (Economics of Natural Resources)

2. Core Courses Group B (2 courses, 2 credits)

_____EVST 201 (Atmospheres and Oceans); or,
_____EVST 223 (General Ecology); or,
_____EVST 200 (Earth System Science); or,
_____EVST 242 (Ecosystems and Landscapes)

3. Area of Concentration: (6 courses, 6 credits)

As decided in consultation with DUS, at least 3 SC courses, 1 advanced seminar (200 level or above) with focus on research methods and writing.

Concentration Title: _____

Concentration Courses (Indicate those that are SC):

1. _____ 4. _____
2. _____ 5. _____
3. _____ 6. _____

4. Senior Colloquium: (2 courses, 2 credits)

_____EVST 496 (Two-term Senior Colloquium; original empirical research and data collection)

5. Senior Thesis Topic

Topic: _____ Advisor: _____