

ENVIRONMENTAL STUDIES (ENST)

ENST 100. Introduction to Environmental Studies. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

A survey of environmental issues intended for non-majors. Students will understand the cultural, political, historical, economic and ethical complexities of environmental problems and their responses. Intended for first-year students and sophomores. Does not count toward either the Environmental Studies or Environmental Science major.

ENST 113. Human Impact on Environment. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

Causes and effects of major environmental changes induced by humans, challenges to our future well-being, and opportunities for future sustainability. Prerequisite: open to first-year students only. Crosslisted as GEOG 113.

ENST 125. Environmental Sustainability Through the London Lens. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

This course will help students to understand their personal connection to the environment through the analysis of environmental systems and cultural narratives that shape our relationship with the environment using London as our classroom. Numerous field trips to sights in and around London will be an important feature.

ENST 201. Environmental Problems-Sustainable Futures. 1 Credit.

Offered Spring Semester Only; Lecture hours:3

Develops a working understanding of the core concepts linked to ENST introduces skills such as posing researchable questions, gathering data, presenting oral arguments, applying these skills in group projects. For 1st 2nd yr. students majoring/intending to major in ENST or ENSC. Jr Sr by permission.

ENST 207. American Environmental History. 1 Credit.

Offered Spring Semester Only; Lecture hours:3

This course examines how nature (soil, disease, water, climate, etc.) shaped American history and how Americans transformed the environment, from the colonial period to today.

ENST 208. Environmental Biology. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3,Lab:3

Introduction to ecology and evolutionary biology, organism interactions with environment, biodiversity, energy flow, and nutrient cycling, with emphasis on human influences on living systems and applications of evolutionary biology and ecology to solving environmental problems. This course is intended primarily for students majoring in environmental studies.

ENST 209. Rainforests and Eco-Politics in Latin America. 1 Credit.

Offered Spring Semester Only; Lecture hours:3

We study how business interests, scientists, and indigenous peoples think and engage with rainforests in radically different ways. Attentive to these differences, the course explores how rainforests are being destroyed by some groups and protected by others. Crosslisted as ANTH 202 and LAMS 202.

ENST 210. Environmental Ethnography. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

This course explores environmental issues from around the world through scholarly readings in environmental anthropology. Students will also examine and practice the ethnographic methods that qualitative social scientists use to understand environmental phenomena. Not open to first-year students. Crosslisted as ANTH 210.

ENST 211. Environmental Pollution and Control. 1 Credit.

Offered Either Fall or Spring; Lecture hours:Varies,Lab:2

Introduction for non-engineering students to the major areas of environmental engineering. Topics include environmental chemistry, biology and ecology, water and air pollution and treatment, solid and hazardous wastes, sustainability, and global climate issues. Not open to students who have taken CEEG 340.

ENST 212. Stream Ecology and Restoration: The Science Behind Fly Fishing. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3,Lab:3

Introduction to the interactions between water quality, hydrology, and aquatic ecosystems and their impact on stream ecosystem health. Stream restoration concepts will be studied including impacts of climate change, invasive species and land use. Fly fishing will be used as the common thread that ties these topics together. Crosslisted as UNIV 215.

ENST 214. Mapping History: Nature, Place, and Power. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

This course examines maps as markers of environmental history. Focusing on the North Atlantic and North America from the seventeenth century onward, the course will emphasize critical analysis of visual artifacts, the politics of cartography, and maps as records of our changing ideas about and impact on the natural world. Crosslisted as GEOG 206 and HIST 215.

ENST 215. Environmental Planning. 1 Credit.

Offered Fall Semester Only; Lecture hours:3

Explores the main approaches to planning theory and their environmental applications. Considers how environmental planning can promote the socio-ecological health and sustainability of democratic communities. Crosslisted as GEOG 215.

ENST 216. Preindustrial Environment. 1 Credit.

Offered Alternate Fall or Spring; Lecture hours:3

An introduction to global environmental history of the preindustrial world through three thematic lenses: how the natural environment shaped patterns of human life, how ideologies toward nature shifted over time, and how human activities and ideologies reshaped the ancient landscape. Crosslisted as CLAS 220.

ENST 221. Hazardous Waste and Society. 1 Credit.

Offered Occasionally; Lecture hours:3,Lab:2

Hazardous waste regulation, risk assessment and toxicology, overview of treatment technologies and site investigation, environmental audits, facilities siting and public participation, pollution prevention. Not open to engineering students, and also not open to students who have taken CEEG 444.

ENST 222. Concepts in Sustainability. 1 Credit.

Offered Alternating Fall Semester; Lecture hours:3,Other:2

This course explores the definitions and concepts of economic, social and environmental sustainability and utilizes the tools to evaluate sustainability metrics including life cycle assessment, systems thinking, and economic analysis. Not open to engineering students.

ENST 226. Water & Power. 1 Credit.

Offered Fall Semester Only; Lecture hours:3

This course explores social, political, and economic power of water, and the water-energy relationship. We will consider historical cases around the world, shifting and competing philosophical approaches to water use, as well as the complex politics surrounding current water issues.

ENST 227. Eco-poetics. 1 Credit.

Offered Spring Semester Only; Lecture hours:3

An exploration of poetry as site-specific ecological practice. Intended for students interested in both Creative Writing and Environmental Studies. Prerequisite: permission of the instructor. Crosslisted as ENCW 240.

ENST 232. Identity, Inequality, and the Environment. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

With a focus on race, ethnicity, class, and gender, this course examines environmental issues from around the globe. Students will learn how issues of identity and inequality are central to environmental problems and solutions. Topics include colonization, toxicity and health, climate change, grassroots environmentalism, and environmental leadership.

ENST 234. Human Ecology. 1 Credit.

Offered Alternating Spring Semester; Lecture hours:3

A general science course in human ecology, to demonstrate the ways humans continue to adapt to their environment through biological, cultural, scientific, symbolic, political, and technical means. Crosslisted as GEOG 234.

ENST 235. Marine Environment. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

Understanding the ecological and physical systems of the ocean, understanding the processes of scientific discovery in the ocean, and exploring the many interactions of humans with ocean systems. Crosslisted as GEOG 235.

ENST 236. Environmental Ethics. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

A survey of the major theories of environmental ethics, with particular attention to the challenge of developing an ethic commensurate with increasing human power. Crosslisted as RELI 226.

ENST 237. Oceans and Society. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

In this class we will uncover the many ways in which human societies are inextricable from the world's oceans and address themes such as scientific uncertainty, environmental racism, immigration, colonialism and urban sustainability. Walrus, anchovies, artisanal fishers, coastal cities and factories will all lie at the center of weekly discussions. Crosslisted as SOCI 227.

ENST 240. Sustaining Nature. 1 Credit.

Offered Fall Semester Only; Lecture hours:3

Critically explores contemporary and historical processes of human manipulation and conservation of nature. How do humans consume, transform, protect, and restore nature globally in relation to interrelated crises of inequality, biodiversity loss and climate change? Crosslisted as GEOG 240.

ENST 241. Environmental Health & Climate. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

This course examines the connection between human-induced climate change, environmental exposures and health. We will situate climate/ environmentally related health problems within social contexts by attending to everyday biological, physical and chemical agents of the environment. Crosslisted as GEOG 241.

ENST 245. Environmental Politics, Policy, & Justice. 1 Credit.**Offered Either Fall or Spring; Lecture hours:3**

An introduction to understanding the role of political institutions, stakeholders and policy processes (in the U.S. and internationally) in addressing environmental problems. Crosslisted as POLS 291.

ENST 246. Environmental Activism. 1 Credit.**Offered Spring Semester Only; Lecture hours:3**

This course explores the geographies and practice of environmental activism. Drawing from national and international examples, we examine diverse means and methods of environmental protest.

ENST 251. Environmental Issues in Indigenous Places. 1 Credit.**Offered Either Fall or Spring; Lecture hours:3**

This course examines the values, politics and power relations that allow for the exploitation and conservation of nature in specific geographies. We will explore environmental and social justice issues emerging from such practices in Indigenous geographies and their intersection with those in Black and other minoritized geographies across the globe. Crosslisted as GEOG 251.

ENST 254. Environmental Humanities. 1 Credit.**Offered Either Fall or Spring; Lecture hours:3**

Explores humanistic perspectives on the environment—from history, ethics, literature, religion, and the arts—including how these perspectives complement or unsettle knowledge about nature from the sciences.

ENST 255. Environmental Injustice and Activism. 1 Credit.**Offered Alternating Spring Semester; Lecture hours:3**

Explores environmental injustice in United States and internationally. Includes discussion of: structural racism, class issues, ecological justice, morality and environmental policy, and the environmental justice movement.

ENST 256. The Political Ecology of Extraction. 1 Credit.**Offered Spring Semester Only; Lecture hours:3**

Using a political ecology framework, this course explores politics of mining and fossil fuel extraction around the world to meet global energy and mineral demand. We will study the connection between mining and climate change politics and many examples of resistance to extractivism.

ENST 263. Conservation in Africa. 1 Credit.**Offered Either Fall or Spring; Lecture hours:3**

Through a series of case studies and a final research project, students will gain in-depth knowledge of conservation efforts on the African continent. Emphasizing local and global contexts, course themes include the colonial origins of protected areas, African environmental activists and scholars, and the multiple methods used in political ecology. Crosslisted as CBST 263.

ENST 278. World Literature and Environmental Justice. 1 Credit.**Offered Either Fall or Spring; Lecture hours:3**

This course examines how writers from outside of Europe and the United States seek environmental justice through a range of literary forms. Crosslisted as ENLS 278.

ENST 286. Imagining Sustainability. 1 Credit.**Offered Either Fall or Spring; Lecture hours:3**

The course covers critical understandings and applications of sustainability across the humanities, the social sciences, and the natural sciences as integrative of environmental, social, economic, and cultural perspectives.

ENST 295. Topics in Environmental Studies. 1 Credit.**Offered Either Fall or Spring; Lecture hours:3; Repeatable**

Selected issues in environmental studies.

ENST 2NT. ENST Non-traditional Study. 1-3 Credits.**Offered Fall, Spring, Summer; Lecture hours:Varies**

Non-traditional study in Environmental Science. Prerequisite: permission of the instructor.

ENST 302. Community-Based Research Design. 1 Credit.**Offered Fall Semester Only; Lecture hours:3,Other:1**

Students will learn quantitative and qualitative research methods related to environmental studies including research design, data collection, and analysis. Prerequisite: junior or senior status. Preference to Environmental Studies majors, others by permission of the instructor.

ENST 303. Diversity in the Great Outdoors. 1 Credit.**Offered Either Fall or Spring; Lecture hours:3**

The great outdoors is for everyone, right? Perhaps it should be, but outdoor recreation has not always been so inviting to all. Through films, field trips, readings, speakers and projects, this course will challenge students to grapple with the complex intersection of social justice and environmental relationships in outdoor recreation.

ENST 305. Gender, Environment & Health. 1 Credit.**Offered Either Fall or Spring; Lecture hours:3**

This course explores how gender (intersecting with other identities) shapes interactions with the environment and related health outcomes. We will attend to multiple forms of power structures that enable and constrain possibilities of well-being. Crosslisted as GEOG 305 and WMST 305.

ENST 315. Cold Places. 1 Credit.

Offered Occasionally; Lecture hours:3

A seminar exploring the nature and culture of cold places – glaciers, mountain tops, Antarctica, and the Arctic – through art, film, literature, science, and popular media. Crosslisted as ENST 615.

ENST 319. Directed Research. .5-1 Credits.

Offered Both Fall and Spring; Lecture hours:Varies; Repeatable

Supervised research or thesis work on environmental issues. Prerequisite: permission of the instructor.

ENST 320. Language & Environmental Politics. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

Communication is central to how people perceive the environment, understand their relationship to it, and organize actions to change it. This course draws on concepts from linguistic anthropology, including discourse analysis, to examine debates about wildlife conservation, clean energy, eco-friendly products, environmental rights, and climate change. Crosslisted as ANTH 307 and LING 320.

ENST 325. Nature, Wealth and Power. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

A seminar in political ecology that explores the historical, social political and economic dimensions of environmental change in developing regions. First-year students and sophomores by permission only. Prerequisite: permission of the instructor. Crosslisted as GEOG 325.

ENST 345. Food and the Environment. 1 Credit.

Offered Fall Semester Only; Lecture hours:3

Nothing from the environment is more important than food production, nothing affects the environment more; we'll study both environmental and social circumstances. Crosslisted as GEOG 345.

ENST 347. Sustainable Cities. 1 Credit.

Offered Fall Semester Only; Lecture hours:3,Other:2

This team-taught course introduces students to the core concepts of sustainability and how they have been applied to promote sustainability in London, the UK, and Europe. This course is part of the Bucknell in London core course. Prerequisite: permission of the instructor. Crosslisted as CEEG 447.

ENST 349. Senior Thesis. .5-1 Credits.

Offered Both Fall and Spring; Lecture hours:Varies; Repeatable

Independent thesis work under adviser's supervision. Prerequisite: permission of the instructor.

ENST 350. Senior Thesis. .5-1 Credits.

Offered Both Fall and Spring; Lecture hours:Varies; Repeatable

Independent thesis work under adviser's supervision. Prerequisite: permission of the instructor.

ENST 353. Ecosystem Ecology. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3,Recitation:1

Interactions between organisms and the physical and chemical environment including nutrient cycling and energy flow, biogeochemistry, and temporal and spatial dynamics of ecosystems. Prerequisites: ENST 208, junior or senior status, and permission of the instructor. Crosslisted as ANBE 353, ANBE 653, BIOL 353, BIOL 653.

ENST 355. Advanced Topics in Environmental Policy. 1 Credit.

Offered Fall Semester Only; Lecture hours:3

Advanced seminar on environmental policy. Focus varies by semester. Consult class schedule for current topic. Prerequisite: permission of the instructor. Crosslisted as POLS 393.

ENST 356. Nationalism, Nature & the Future. 1 Credit.

Offered Occasionally; Lecture hours:3

This course explores: the politics and geographies of nationalism; how nature is nationalized; the various ways ethnocentrism, racism, and sexism become part of national identity construction; ideas about and representations of nature in environmental contestations and in reactions to nationalism; and the intersection of nationalism with other social constructions. Crosslisted as IREL 356 and POLS 356.

ENST 357. Petroleum Putinism & Plutonium. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

This course explores the role of nationalism, alongside ideas about energy and nature, in the Russian state's current historical colonial relationships with neighboring countries, Central Asia and Indigenous communities of Siberia. Topics include Russian imperial/Soviet state extractivist economics, Russian/regional pipeline and petro politics, social resistance and climate change futures. Crosslisted as POLS 357 and RUSS 357.

ENST 3NT. ENST Non-traditional Study. 1-3 Credits.

Offered Fall, Spring, Summer; Lecture hours:Varies

Non-traditional study in Environmental Science. Prerequisite: permission of the instructor.

ENST 411. Environmental Community Projects. 1 Credit.

Offered Either Fall or Spring; Lecture hours:3

Community-based "clinic" course on environmental problems or projects for local stakeholders, based on integrative, interdisciplinary research and design. Preference to senior ENST, ENSC, and GEOG majors.