

ENVIRONMENTAL STUDIES CONCENTRATION

Chair: Associate Professor Nicolas Howe

Associate Director: Lecturer Sarah Gardner

Professor: H. Art. Associate Professor: N. Howe. Assistant Professor: L. Martin. Assistant Professor: Brittany Meché. Class of 1946 Visiting Distinguished Professor of Environmental Studies: D. Cassuto. Visiting Assistant Professors: S. Auer, A. Gill, A. Merleaux. Lecturers: S. Gardner, J. Racela, Visiting Lecturer: A. Apotsos. Research Associates: R. Bolton, L. Venolia.

Environmental Studies Advisory Committee (2019-20): Professors: H. Art, R. Bradburd, J. Nolan. Associate Professors: N. Howe, S. Jacobson, Assistant Professor: P. Kohler, Lecturers: S. Gardner, J. Racela.

Maritime Studies Advisory Committee (2019-20): Professors: H. Art, R. Cox, C. Ting. Associate Professor: L. Gilbert. Assistant Professor: J. Constantine. Associate Dean: J. Gerry.

Mystic Executive Director: T. Van Winkle.

MEMBERS OF THE CENTER FOR ENVIRONMENTAL STUDIES (2020-21)

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Henry W. Art, Professor of Biology and Environmental Studies

Sonya Auer, Visiting Assistant Professor of Biology

Lois M. Banta, Professor of Biology

Ron D. Bassar, Assistant Professor of Biology

Ben Benedict, Lecturer in Art

Julie C. Blackwood, Assistant Professor of Mathematics

Roger E. Bolton, Professor of Economics, Emeritus

Ralph Bradburd, David A. Wells Professor of Political Economy

Alice C. Bradley, Assistant Professor of Geosciences

Nicole G. Brown, Assistant Professor of Classics

Cory E. Campbell, instructional Technology Specialist

Anthony Carrasquillo, Assistant Professor of Chemistry

Gregory Casey, Assistant Professor of Economics

David Cassuto, Class of 1946 Visiting Distinguished Professor of Environmental Studies

Phoebe A. Cohen, Associate Professor of Geosciences

Jose E.A. Constantine, Assistant Professor of Geosciences

Mea S. Cook, Associate Professor of Geosciences

David P. Dethier, Professor of Geosciences, Emeritus

Joan Edwards, Samuel Fessenden Professor of Biology

Laura Ephraim, Associate Professor of Political Science

Michael Evans, Assistant Director of The Zilkha Center

Jessica M. Fisher, Assistant Professor of English

Antonia Foias, Professor of Anthropology and Sociology

Jennifer L. French, Professor of Spanish

Sarah S. Gardner, Lecturer in Environmental Studies

Matthew Gibson, Assistant Professor of Economics

Lisa Gilbert, Associate Professor of Geosciences and Marine Sciences

Allison Gill, Assistant Professor of Biology

Catherine Hall, Lecturer, Williams-Mystic Maritime Studies Program

Nicolas Howe, Associate Professor of Environmental Studies

Sarah Jacobson, Associate Professor of Economics

Andrew Jones, Manager, Hopkins Memorial Forest

Paul Karabinos, Professor of Geosciences

Elizabeth Kolbert, Class of 1946 Visiting Distinguished Professor of Environmental Studies

Joel Lee, Assistant Professor of Anthropology

Scott Lewis, Assistant Professor of Physical Education and Director of Outing Club

James Manigault-Bryant, Associate Professor of Africana Studies

Luana Maroja, Associate Professor of Biology

Laura Martin, Assistant Professor of Environmental Studies

Brittany Meché, Bolin Fellow in Environmental Studies

April Merleaux, Visiting Assistant Professor of Environmental Studies

Karen R. Merrill, Professor of History

Manuel Morales, Professor of Biology and Director of Research Hopkins Forest

James Nolan, Chair of Anthropology and Sociology and Washington Gladden 1859 Professor of Sociology

Julie Pedroni, Lecturer in Philosophy

Timothy Pusack, Assistant Professor of Marine Ecology, Williams-Mystic Maritime Studies Program

Jay Racela, Lecturer in Environmental Studies and Supervisor, Environmental Analysis Lab

David P. Richardson, Professor of Chemistry

Kenneth Savitsky, Professor of Psychology

David C. Smith, Senior Lecturer in Biology, Emeritus

David L. Smith, Professor of English

Greta F. Snyder, Visiting Assistant Professor of Women's, Gender, and Sexuality Studies

John W. Thoman, Jr., Professor of Chemistry

Claire Ting, Professor of Biology

Tom Van Winkle, Executive Director of The Williams-Mystic Maritime Studies Program

Sofia Zepeda, Assistant Professor, Maritime History, Williams-Mystic Maritime Studies Program

ENVIRONMENTAL STUDIES

Environmental issues call upon citizens, organizations, and governments to grasp complex scientific concepts, address conflicting human values, and make difficult economic, political and ethical choices. A proper understanding of environmental issues is therefore an interdisciplinary exercise.

The concentration in Environmental Studies is designed to help students to:

- Effectively address complex environmental issues by integrating perspectives from the natural sciences, the social sciences, and the arts and humanities;
- Understand ecological principles and the nature of living systems;

- Apply scientific methods to collect environmental data and evaluate environmental quality;
- Understand the political and economic factors that inform, enable, and constrain environmental policy;
- Understand the social, cultural, and historical factors that shape environmental thought, history, and behavior;
- Develop significant understanding of one or more of the essential methodological approaches required in addressing environmental challenges;
- Have an appreciation for the ambiguity and uncertainty inherent in many environmental issues;
- Apply their learning in a practical setting.

The program is administered by the Center for Environmental Studies (CES), located in the Class of 1966 Environmental Center. Founded in 1967, the CES is considered to be the first environmental studies center at a liberal arts college. In addition to the academic program described below, The CES is the focus of a varied set of activities in which students lead and participate, often with other members of the Williams community. The CES offers extensive resources including databases, funding for student-organizations and student-initiated activities, and generous support for summer research and internships. The Class of 1966 Environmental Center, a Living Building and the Program's home, includes a classroom, living room, study rooms, kitchen, as well as student gardens. The CES manages the Hopkins Memorial Forest, a 2600-acre natural area 1.5 miles from campus, in which there are field-study sites and a laboratory, and where passive-recreation opportunities may be found in all seasons. The CES also operates the Environmental Analysis Laboratory in Morley Science Center.

ADVISING

Majors (or first-years and sophomores interested in the major offered by CES) are encouraged to talk at any time with the Chair, Associate Director of Environmental Studies, or any other members of CES for advice. All incoming majors will be assigned a faculty advisor in the spring of their sophomore year.

Advisors for 2020-2021: Ralph Bradburd, Jennifer French, Sarah Gardner, Nick Howe, and Luana Maroja.

STUDY AWAY

Many study away options are available to students in Environmental Studies, including the Williams-Mystic Maritime Studies Program. Students considering either a semester or year away who intend to major in Environmental Studies should consult the Chair or Associate Director of Environmental Studies and the Dean in charge of study abroad as early as possible to discuss their options. Students may take up to two courses outside of Williams toward their major but must have advance approval in writing from the Chair of Environmental Studies.

CONCENTRATION IN ENVIRONMENTAL STUDIES

The Environmental Studies concentration provides students with an opportunity to explore how humans interact with the environment, including physical, biological, philosophical, and social elements. The concentration is designed so that students will understand the complexity of issues and perspectives that inhere in environmental problems and will appreciate that most environmental issues lack distinct disciplinary boundaries. The goal of the concentration is to educate students to be well-informed, environmentally literate citizens who have the capacity to become active participants in the local and global community. To this end, the concentration is designed to develop the capability to think in interdisciplinary ways and to use synthetic approaches to solve problems while incorporating the knowledge and experiences gained from majoring in other departments at the College.

The Environmental Studies concentration is a seven-course concentration in which students gain broad exposure to environmental studies while pursuing another major. In addition to the core of ENVI 101, ENVI 102, ENVI 302, and ENVI 412, students pursuing the concentration will take one elective from each group that represents a broad category of inquiry: Environmental Policy; Humanities, Arts and Social Sciences; and the Natural World.

THE MAJOR IN ENVIRONMENTAL STUDIES

The Environmental Studies major is an eleven-course major. The major has a core of seven courses, with varying amounts of choice for the various core course requirements. All majors are required to take four of the seven courses: ENVI 101, ENVI 102, ENVI 302, and one 400-level Senior Seminar. ENVI 101 – Nature and Society: An Introduction to Environmental Studies, is a broad introduction to the field, emphasizing the humanities and social sciences. ENVI 102 – Introduction to Environmental Science, introduces students to the interdisciplinary study of the Earth's systems through the synthesis of physical, chemical, geological, and biological perspectives. All majors are also required to take, in the junior year (or senior year under special circumstances), ENVI 302 – Environmental Planning Workshop: Community-Based Experience (offered every fall), one 400-level senior seminar. The remaining core requirements are comprised of three foundational 200-level courses, one from each of three lists of courses (see below)... These lists represent the three main branches of the environmental curriculum: Environmental humanities, environmental social science/policy, and environmental science. Students choose, in consultation with their major advisor, the course they will take

from each of the three lists. Building on this seven-course foundation, Environmental Studies majors devise an individualized four-course cluster of electives that together comprise a disciplinary or thematic specialization sequence—for example, climate change policy, environmental justice, the built environment,

environmental chemistry, sustainable food and agriculture, environmental ethics, etc. Students are responsible for designing their own major cluster in consultation with a faculty advisor in the spring semester of their sophomore year. One of these four electives in the cluster must be among those listed by the Program as a research methods course, although students may petition to count another course toward this requirement. The study of living systems is an integral component of environmental studies, and therefore all students majoring in environmental studies will need to complete at least one course designated by the Program as a “living systems” course (this may be within their specialization cluster or as one of their 200-level foundational courses).

Submitting your Proposed Course Cluster and Plan of Study to the Major

Students intending to major in environmental studies must meet with a prospective advisor chosen in consultation with the Environmental Studies Chair to develop their proposed four-course cluster and plan of study through the major. We encourage all students interested in the major to meet with a faculty member in Environmental Studies at least one week prior to spring pre-registration to discuss their proposed cluster and plan of study. The proposals must be submitted to the program Chair on or before the final day of pre-registration in the spring of the sophomore year. Application materials and instructions are available from Environmental Studies faculty and on the CES website (ces.williams.edu). The individual proposals will be reviewed by the CES Advisory Committee.

Planning for Prerequisites on your Path through the Major

While ENVI 101 or ENVI 102 are recommended starting points for the major, and are prerequisites for many other ENVI course offerings, please note that some of the course options for the major may have other courses as prerequisites that may not count toward the programs. For example, ENVI/ECON 213 (*Intro to Environmental and Natural Resource Economics*) has a prerequisite of ECON 110 (*Principles of Microeconomics*). We strongly suggest that you do advance planning to avoid being blocked from taking a relevant course. For example, should you want to design a cluster that emphasizes environmental economics, ENVI/ECON 387 (*Economics of Climate Change*) has a prerequisite of ECON 251 (*Price and Allocation Theory*), which in turn has a prerequisite of ECON 110. Similarly, should you design a cluster that emphasizes resource conservation, you should be aware that ENVI 312 (*Communities and Ecosystems*) has a prerequisite of ENVI/BIOL 203 (*Ecology*) or ENVI/BIOL 220 (*Field Botany and Plant Natural History*). Students interested in the program are encouraged to consult with members of the Environmental Studies Program and to contact the Chair or Associate Director.

Credit for AP, IB, A-levels and other pre-Williams Courses

Students are not allowed to place out of ENVI 101 or ENVI 102.

Introductory Required Courses (2 courses)

ENVI 101 Nature and Society: An Introduction to Environmental Studies

ENVI 102 Introduction to Environmental Science

Foundational Required Courses for all Environmental Studies Majors (3 courses, 1 from each category)

Culture/Humanities Foundational (1 course)

[ENVI 217 / AMST 216 SEM Landscape, Place and Power](#)

Taught by: [Nicolas Howe](#)

[Catalog details](#)

[ENVI 229 / HIST 264 SEM Environmental History](#)

Taught by: [Laura Martin](#)

[Catalog details](#)

[ENVI 244 / PHIL 244\(S\) TUT Environmental Ethics](#)

Taught by: [Julie Pedroni](#)

[Catalog details](#)

[ENVI 246 / AMST 245 / HIST 265\(F\) SEM Race, Power, & Food History](#)

Taught by: [April Merleaux](#)

[Catalog details](#)

[ENVI 250 / STS 250\(F\) SEM Environmental Justice](#)

Taught by: [Laura Martin](#)

[Catalog details](#)

[ENVI 259 / AMST 259 / HIST 259 SEM New England Environmental History](#)

Taught by: [Laura Martin](#)

[Catalog details](#)

[RLSP 216 / ENVI 233 SEM Latin American Environmental Literature and Cultural Production](#)

Taught by: [Jennifer French](#)

[Catalog details](#)

Environmental Science Foundational (with lab, 1 course)

[BIOL 203 / ENVI 203\(F\) LEC Ecology](#)

Taught by: [Allison Gill](#)

[Catalog details](#)

[CHEM 373 / ENVI 373 LEC Environmental Organic Chemistry](#)

Taught by: [Anthony Carrasquillo](#)

[Catalog details](#)

[GEOS 215 / ENVI 215 LEC Climate Changes](#)

Taught by: [Mea Cook](#)

[Catalog details](#)

[GEOS 227 / ENVI 226\(S\) TUT Climate Data Analysis](#)

Taught by: [Alice Bradley](#)

[Catalog details](#)

[GEOS 301 / ENVI 205\(F\) LEC Geomorphology](#)

Taught by: [José Constantine](#)

[Catalog details](#)

[GEOS 309 / ENVI 209 LEC Modern Climate](#)

Taught by: [Alice Bradley](#)

[Catalog details](#)

Social Science/Policy Foundational (1 course)

[ECON 213 / ENVI 213 LEC Introduction to Environmental and Natural Resource Economics](#)

Taught by: [Sarah Jacobson](#)

[Catalog details](#)

[ENVI 206 SEM Global Environmental Politics](#)

Taught by: [April Merleaux](#)

[Catalog details](#)

[ENVI 297 / GBST 287\(S\) SEM Global Sustainable Development](#)

Taught by: [Brittany Meché](#)

[Catalog details](#)

[ENVI 307 / PSCI 317\(F\) LEC Environmental Law](#)

Taught by: [David Cassuto](#)

[Catalog details](#)

Specialization Cluster (4 courses, including a Living Systems course and a Methods course)

In the spring of the sophomore year, at the same time that the major declaration is due, each student planning to major in Environmental Studies is required to submit a detailed proposal for a specialization cluster comprised of four elective courses built around a disciplinary or thematic focus. The proposed specialization must include one course identified as a “methods” course, that is, a course providing substantial training in a relevant method of inquiry (see list below for indicative list of courses that might fulfill that designation).

To help students get a better idea of what the “cluster” entails, we have provided examples of specialization clusters on the CES website, including on the following themes (not intended to be an exhaustive list): climate change policy, environmental justice, environmental planning and design, environmental literature, environmental chemistry, environmental biology, environmental geosciences, sustainable design, water and energy, sustainable food and agriculture, urban studies, and environmental economics.

The student’s specialization sequence will be developed under guidance of an adviser from the CES faculty, and formally approved by the CES Advisory Committee, and will be examined in the broader context of the student’s proposed route through the major (including their choice of 200-level foundational courses). One of the courses in the student’s proposed route through the major must be from a designated list of “living systems” courses (below).

Courses taken abroad may be included in the specialization with the approval of the Chair or Associate Director. Additional courses from the 200-level group requirements (culture/humanities; social science/policy; and environmental science) or from among the research practicum courses may also be included in the specialization.

Living Systems (1 course)

The Environmental Studies program will consider requests from students to substitute another course that focuses on living systems for one of the courses listed below. These requests should be submitted to the Chair or to Sarah Gardner, Associate Director.

[BIOL 134 / ENVI 134\(F\) LEC The Tropics: Biology and Social Issues](#)

Taught by: [Joan Edwards](#)

[Catalog details](#)

[BIOL 203 / ENVI 203\(F\) LEC Ecology](#)

Taught by: [Allison Gill](#)

[Catalog details](#)

[BIOL 220 / ENVI 220\(S\) LEC Field Botany and Plant Natural History](#)

Taught by: [Joan Edwards](#)

[Catalog details](#)

[BIOL 302 / ENVI 312 LEC Communities and Ecosystems](#)

Taught by: [Manuel Morales](#)

[Catalog details](#)

[MAST 211 / GEOS 210\(F, S\) LEC Oceanographic Processes](#)

Taught by: Rachel Scudder

[Catalog details](#)

[MAST 311 / BIOL 231\(F, S\) LEC Marine Ecology](#)

Taught by: [Tim Pusack](#)

[Catalog details](#)

Methods (1 course)

This is not intended to be an exhaustive list. Students are expected to make the case for how their designated methods course complements their proposed specialization.

[ANSO 205\(S\) SEM Ways of Knowing](#)

Taught by: [Olga Shevchenko](#)

[Catalog details](#)

[CHEM 364 / ENVI 364\(S\) LEC Instrumental Methods of Analysis](#)

Taught by: [Christopher Goh](#)

[Catalog details](#)

[ECON 255\(F, S\) LEC Econometrics](#)

Taught by: [Owen Ozier](#), [Matthew Gibson](#), [David Zimmerman](#)

[Catalog details](#)

[GEOS 214 / ENVI 214\(S\) LEC Mastering GIS](#)

Taught by: [José Constantine](#)

[Catalog details](#)

[GEOS 255 / ENVI 255\(F\) LEC Environmental Observation](#)

Taught by: [Alice Bradley](#)

[Catalog details](#)

[GEOS 309 / ENVI 209 LEC Modern Climate](#)

Taught by: [Alice Bradley](#)

[Catalog details](#)

[POEC 253\(F\) LEC Empirical Methods in Political Economy](#)

Taught by: [Anand Swamy](#)

[Catalog details](#)

[STAT 201\(F, S\) LEC Statistics and Data Analysis](#)

Taught by: [Stewart Johnson](#)

[Catalog details](#)

[STAT 202\(F, S\) LEC Introduction to Statistical Modeling](#)

Taught by: [Shaoyang Ning](#), [Daniel Turek](#)

[Catalog details](#)

[STAT 346\(F, S\) LEC Regression Theory and Applications](#)

Taught by: [Elizabeth Upton](#)

[Catalog details](#)

Experiential Required Course (1 course)

In the junior year, or under special circumstances in the senior year, students will take ENVI 302 *Environmental Planning Workshop: Community-Based Experience*. Offered every fall semester, the practicum Environmental Planning Workshop engages students in team-based work on community projects in the Berkshire region involving urban or rural land use planning and environmental design.

Senior Seminar Required Course (1 course)

In the junior or senior year, students will take ENVI 412, Senior Seminar, one 400-level seminar in Environmental Studies. These seminars will focus

on advanced, interdisciplinary research and/or problem-solving, typically with an applied, experiential, and/or service-learning focus.

INDEPENDENT STUDY AND WINTER STUDY

In addition to courses fulfilling the Environmental Studies major requirements, the following courses are offered:

ENVI 397, 398 Independent Study of Environmental Problems

ENVI 493-W31-494 Honors Thesis and Senior Research

Winter Study courses play an important role in the program, offering opportunities to learn about aspects of environmental studies with which students would like to become more familiar. We encourage students to bear in mind their interests in the environment and maritime studies when reviewing each year's Winter Study offerings.

HONORS IN ENVIRONMENTAL STUDIES MAJOR

Candidates for honors in Environmental Studies will complete a thesis in their senior year. A student earns honors by successfully completing a rigorous independent project under the supervision of a member of the CES faculty. The thesis may either be a one-semester plus Winter Study project, or a full-year project (two semesters plus Winter Study). Students who are majoring in environmental studies, and who opt to complete a year-long thesis project, have the option of substituting the second semester of their thesis work for the spring semester senior seminar. Honors will be awarded on the basis of the academic merit and originality demonstrated by the student in the completed thesis. Because many theses will require sustained field, laboratory or archival work that is difficult to combine with conventional coursework, students are strongly encouraged to spend the summer before senior year and/or their senior year Winter Study doing advance research.

Funds to support student summer research are available from endowment funds of the CES, and an open competition is held each spring to allocate summer funding resources. Other departments may also provide limited support for summer thesis research. Students and their faculty sponsors should plan the thesis with the expectation of such research in mind.

Juniors who wish to apply to pursue honors should submit a 5-page proposal to their intended advisor and the Chair of Environmental Studies by the first Friday in March. If a student wishes to pursue thesis research advised by a faculty member not affiliated with CES, the student must also identify a co-advisor from within the program. Students applying to conduct an honors thesis in Environmental Studies will be notified before spring break whether or not their proposal has been approved.

Students doing a full-year thesis give a presentation in October to their thesis advisor, second reader, and environmental studies community. Further details on the honors program are available through the Environmental Studies website: <https://ces.williams.edu/academic-program/honors/>

ENVI 100 (S) Introduction to Weather and Climate

Cross-listings: GEOS 100 ENVI 100

Secondary Cross-listing

How is it that we have such a hard time predicting if it's going to rain next week, but we can be confident in projections of future climate change decades from now? This course will explore the atmosphere and how air moves and changes, understanding the wind, clouds, precipitation, and extreme events (including thunderstorms, hurricanes, and tornados) that form our weather. Building off of our understanding of the atmosphere, we'll look at longer time scales to develop a basic understanding of earth's climate, global heat and moisture transport, climate change, and the ways that humans can change our planet. We will look at weather and climate models to learn how to scientists and meteorologists predict future conditions. Labs will include local field trips, bench top experiments, and running a climate model on a computer. This course is in the Oceans and Climate group for the Geosciences major.

Requirements/Evaluation: lab assignments, a midterm, and a final exam

Prerequisites: none

Enrollment Limit: 40

Enrollment Preferences: first year and second year students, Geosciences majors

Expected Class Size: 40

Grading: no pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 100 (D3) ENVI 100 (D3)

Attributes: ENVI Natural World Electives EXPE Experiential Education Courses GEOS Group A Electives - Climate + Oceans

Not offered current academic year

ENVI 101 (F)(S) Nature and Society: An Introduction to Environmental Studies

Environment and society interact on scales from the local to the global. This course explores these interactions and introduces students to the interdisciplinary methods of environmental studies. We will investigate the social, political, and historical aspects of environmental problems -- including environmental racism, species extinction, climate change, and more -- as well as their possible solutions. We will survey policy-making and activism in a variety of contexts and will examine art, literature, film, music, maps, advertisements, and other cultural objects. Throughout the course, we will ask how unequal distributions of power affect people and environments. Case studies, readings, discussions, and field exercises will help students develop their understanding how natural systems influence and are influenced by human activities.

Class Format: Fall 2020: The two sections of the course will be taught entirely online (Howe) or in a hybrid format accommodating both students on campus & those learning remotely (Merleaux). Both sections will be divided into small discussion groups meeting once per week. Some meetings may be scheduled outside of the allotted time block. Course includes a mix of synchronous & asynchronous online work, including video lectures, writing workshops, virtual field trips, reading annotation, and discussion forums.

Requirements/Evaluation: participation, in-class exercises, several short writing assignments (varying from 2-5 pages)

Prerequisites: none

Enrollment Limit: 20/section

Enrollment Preferences: Environmental Studies majors and concentrators

Expected Class Size: 20/section

Grading: yes pass/fail option, yes fifth course option

Unit Notes: required course for the Environmental Studies major and concentration

Distributions: (D2)

Attributes: AMST Space and Place Electives ENVI Core Courses EVST Core Courses GBST Urbanizing World Electives

Fall 2021

LEC Section: 01 MR 1:10 pm - 2:25 pm Laura J. Martin

LEC Section: 02 TR 9:55 am - 11:10 am Nicolas C. Howe

Spring 2022

LEC Section: 01 TF 1:10 pm - 2:25 pm April Merleaux

ENVI 102 (S) Introduction to Environmental Science

Environmental Science is an interdisciplinary field that develops scientific and technical means for assessing and mitigating human impacts on the environment. This course provides an overview of the discipline in the context of the interconnected global earth system: the geosphere, atmosphere, hydrosphere, and biosphere. Students are introduced to scientific methods from physics, chemistry, geology, and biology that are used to examine real-world case studies at global and local scales. Topics may include: climate change, air and water pollution, resource extraction and management, land use change, and their effects on environmental quality, biodiversity, and human health. During weekly fieldwork and laboratory sessions, students gain hands-on experience in collecting, analyzing, and interpreting data that can be used to make recommendations for addressing local environmental issues.

Class Format: Two 75-minute lecture/discussion sessions and one 3-hour field/laboratory session each week.

Requirements/Evaluation: Weekly short quizzes, three exams, lab assignments, participation

Prerequisites: none

Enrollment Limit: 48

Enrollment Preferences: first- and second-year students, Environmental Studies majors and concentrators

Expected Class Size: 48

Grading: no pass/fail option, no fifth course option

Unit Notes: Required course for Environmental Studies major and concentration

Distributions: (D3)

Attributes: ENVI Core Courses EVST Core Courses EXPE Experiential Education Courses

Spring 2022

LEC Section: 01 TR 9:55 am - 11:10 am Sonya K. Auer, Alex A. Apotsos

LAB Section: 02 T 1:00 pm - 4:00 pm Alex A. Apotsos

LAB Section: 03 W 1:00 pm - 4:00 pm Sonya K. Auer

LAB Section: 04 R 1:00 pm - 4:00 pm Sonya K. Auer

ENVI 103 (F) Global Warming and Environmental Change

Cross-listings: GEOS 103 ENVI 103

Secondary Cross-listing

Earth is the warmest it has been for at least five centuries, and the surface of our planet is responding. From extreme floods and drought to landslides and soil erosion, the natural processes that shape Earth's surface are tied to temperature and precipitation. As those change, the landscape reacts. People are beginning to feel the impacts, but in different ways depending on where they call home. In this course, we will investigate how climate change is altering landscapes and the natural processes that support them, highlighting all the ways that people are being affected today. Ultimately, we will develop an understanding of the consequences of climate change that connects physical processes with the geography of place. Specific topics include foundations of the Earth system, plate tectonics and the construction of landscapes, Earth materials, rivers and flooding, hillslope processes, coastal processes, and climate impacts on natural resources such as fresh water and soil. Labs will use local field sites and analytical exercises to evaluate recent cases that reflect an interaction of the landscape and climate. This course is in the Sediments and Life group for the Geosciences major.

Requirements/Evaluation: written reports from laboratories and readings, class participation, a midterm and final exam

Prerequisites: none

Enrollment Limit: 40

Enrollment Preferences: first year and second year students, Geosciences majors and Environmental Studies majors and concentrators

Expected Class Size: 40

Grading: yes pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 103 (D3) ENVI 103 (D3)

Attributes: ENVI Natural World Electives EXPE Experiential Education Courses GEOS Group B Electives - Sediments + Life

Not offered current academic year

ENVI 104 (F) Oceanography

Cross-listings: GEOS 104 MAST 104 ENVI 104

Secondary Cross-listing

In this wide-ranging and integrated introduction to the oceans we will examine formation and history of the ocean basins; composition and origin of seawater; currents, tides, and waves; ocean-atmosphere interactions; oceans and climate; deep-marine environments; coastal processes; productivity in the oceans; marine resources; and human impacts. We will discuss current research, and address issues of colonialism and racism in oceanographic science. This course is in the Oceans and Climates group for the Geosciences major.

Class Format: 3 50-minute lecture/discussion meetings each week; 2-hour lab every second week. 3 mini-symposia (during scheduled class time). All-day field trip to the Atlantic coast of New England.

Requirements/Evaluation: 6 graded lab exercises, mini-symposium participation, a 4-page term paper, and final exam.

Prerequisites: none

Enrollment Limit: 60

Enrollment Preferences: first year and second year students, Geosciences majors, Maritime Studies concentrators

Expected Class Size: 60

Grading: yes pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 104 (D3) MAST 104 (D3) ENVI 104 (D3)

Attributes: ENVI Natural World Electives EXPE Experiential Education Courses GEOS Group A Electives - Climate + Oceans

Fall 2021

LEC Section: 01 MWF 9:00 am - 9:50 am Rónadh Cox

LAB Section: 02 M 1:00 pm - 3:00 pm Rónadh Cox

LAB Section: 03 W 1:00 pm - 3:00 pm Rónadh Cox

ENVI 105 (F) The Co-Evolution of Earth and Life

Cross-listings: GEOS 101 ENVI 105

Secondary Cross-listing

Our planet is about 4.6 billion years old and has supported life for at least the last 3.5 billion of those years. This course will consider the inter-related nature of Earth and the life that inhabits it, starting with the first living organisms and progressing to the interaction of our own species with the Earth today. Students will investigate the dynamic nature of the Earth-life system, examine many of its feedbacks, and learn about the dramatic changes that have occurred throughout the history of the Earth. We will ask questions such as: How did the Earth facilitate biologic evolution, and what effects did those biologic events have on the physical Earth? When did photosynthesis evolve, how can we detect that in the rock record, and how did this biological event lead to profound changes in the environment? How and why did animals evolve and what role did environmental change play in the radiation of animal life? How did the rise and radiation of land plants affect world climate? How do plate tectonics, glaciation, and volcanism influence biodiversity and evolutionary innovation? What caused mass extinctions in the past and what can that teach us about our current extinction crisis? Labs will involve hands-on analysis of rocks, fossils, and real-world data as well as conceptual and analytical exercises; field trips will contextualize major events in Earth history and will help students learn to read the rock record. Through these investigations, the class will provide a comprehensive overview of Earth history, with special attention paid to the geological and paleontological history of the northeastern United States. This course is in the Sediments and Life group for the Geosciences major.

Class Format: one laboratory per week plus one all-day field trip

Requirements/Evaluation: lab work, short quizzes, midterms, an independent project, and a final exam

Prerequisites: none

Enrollment Limit: 30

Enrollment Preferences: first year and second year students, Geosciences majors

Expected Class Size: 30

Grading: yes pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 101 (D3) ENVI 105 (D3)

Attributes: ENVI Natural World Electives EXPE Experiential Education Courses GEOS Group B Electives - Sediments + Life

Not offered current academic year

ENVI 108 (F) Energy Science and Technology (QFR)

Cross-listings: ENVI 108 PHYS 108

Secondary Cross-listing

Energy use has skyrocketed in the United States and elsewhere in the world, causing significant economic and political shifts, as well as concerns for the environment. This course will address the physics and technology of energy generation, consumption, and conservation. It will cover a wide range of energy sources, including fossil fuels, hydropower, solar energy, wind energy, and nuclear energy. We will discuss energy use in transportation, manufacturing, building heating, and building lighting. Students will learn to compare the efficiencies and environmental impacts of various energy sources and uses.

Class Format: twice a week, occasional lab exercises, and a field trip to the college heating plant, all during class hours

Requirements/Evaluation: weekly assignments, two hour tests, and a final project culminating in an oral presentation to the class and a 10-page

paper; all of these will be substantially quantitative

Prerequisites: high school physics, high school chemistry, and mathematics at the level of MATH 130

Enrollment Limit: 20

Expected Class Size: 20

Grading: yes pass/fail option, yes fifth course option

Distributions: (D3) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 108 (D3) PHYS 108 (D3)

Attributes: ENVI Natural World Electives

Fall 2021

LEC Section: 01 TR 11:20 am - 12:35 pm Henrik Ronellenfitsch

ENVI 110 (S) The Anthropocene: Nature and Culture in the Human Age

In 2016, a group of scientists appointed by the International Commission on Stratigraphy, the body that keeps the official timetable of earth's history, argued that the planet has entered a new age known as the Anthropocene. Their questions were epochal: Has humanity become a geological force as powerful as those that have shaped the planet's deep past, such as ice sheets and asteroids? Have we truly entered "the human age," and if so, when did it begin and what does it all mean? This course will ask how researchers from different fields have sought to answer these questions. Just as important, it will ask how they became questions in the first place. Where did the idea of the Anthropocene come from? What are its social, political, and ethical implications? How we have arrived at this new understanding of our planet and ourselves? And what can this major intellectual shift—a shift that has already begun to send waves far beyond the academy into the worlds of art, literature, politics, and religion—tell us about the construction of environmental knowledge in the twenty-first century? Readings will come primarily from the environmental social sciences and humanities, including works by nineteenth and early twentieth-century environmental thinkers, but will be supplemented with material from the natural and environmental sciences. Topics will include climate change, mass extinction, urbanization, and deforestation. Our focus throughout will remain on ways of knowing, imagining, and representing global environmental change in an era of ever-expanding human influence.

Requirements/Evaluation: each week each student will either write a 5- to 7-page essay on assigned readings or offer a 2-page critique of their partner's paper

Prerequisites: none

Enrollment Limit: 10

Enrollment Preferences: first years and sophomores

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Attributes: AMST Space and Place Electives ENVI Humanities, Arts + Social Science Electives GBST Economic Development Studies Electives

Not offered current academic year

ENVI 134 (F) The Tropics: Biology and Social Issues (DPE)

Cross-listings: BIOL 134 ENVI 134

Secondary Cross-listing

Biology and Social Issues of the Tropics explores the biological dimensions of social issues in tropical societies, and focuses specifically on the peoples of tropical regions in Africa, Asia, Latin America, Oceania, and the Caribbean. Tropical issues have become prominent on a global scale, and many social issues in the tropics are inextricably bound to human ecology and the tropical environment. Each section provides the science behind the issues and ends with possible solutions. The course highlights differences between the tropics and areas at higher latitudes. It begins with a survey of the tropical environment, including a global climate model, variation in tropical climates and the amazing diversity of tropical biomes. The next section focuses on human population biology, and emphasizes demography and the role of disease particularly malaria, AIDS and Covid-19 (SARS-CoV-2). The final part of the course covers the place of human societies in local and global ecosystems including the challenges of tropical food production, the interaction of humans with their supporting ecological environment and climate change. This course fulfills the DPE requirement. Through lectures,

debates and readings, students confront social issues and policies from the perspective of biologists. This builds a framework for lifelong exploration of human diversity in terms of difference, power and equity.

Class Format: Debate

Requirements/Evaluation: two hour exams, a short paper, debate presentation, and a final exam

Prerequisites: none

Enrollment Limit: 60

Enrollment Preferences: Preference will be given to Environmental Studies majors/concentrators, students in need of a Division III or DPE requirement, and then Seniors, Juniors, Sophomores, and First Year students.

Expected Class Size: 60

Grading: no pass/fail option, no fifth course option

Unit Notes: Does not count for credit in the Biology major.

Distributions: (D3) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

BIOL 134 (D3) ENVI 134 (D3)

Difference, Power, and Equity Notes: This course highlights differences between the tropics and higher latitudes. For each section we focus on difference--different natural habitats and biodiversity, different patterns of population growth, different human disease profiles, different types of agriculture and different contributions to and impacts of climate change. For each section we highlight differences in power and the inequities of resource distribution. We then debate potential solutions to ameliorate these inequities.

Attributes: ENVI Natural World Electives EVST Living Systems Courses GBST African Studies Electives PHLH Biomedical Determinants of Health

Fall 2021

LEC Section: 01 MWF 11:00 am - 11:50 am Joan Edwards

ENVI 201 (S) The Geoscience of Epidemiology and Public Health (DPE)

Cross-listings: ENVI 201 GEOS 207

Secondary Cross-listing

The Coronavirus pandemic has highlighted the many ways that diseases can be transmitted in the environment. As a society we are becoming aware of the many ways that geological processes and materials influence human health, in ways both beneficial and dangerous. This course unites geoscience, biomedicine and public health approaches to address a wide range of environmental health problems. These include water-related illnesses (e.g. diarrhea, malaria); minerals and metals, both toxic (e.g. asbestos, arsenic) and essential (e.g. iodine); radioactive poisoning (e.g. radon gas); and the transport of pathogens by water and wind. In many cases, the environmental health problems disproportionately affect marginalised populations, contributing to greater disease and death among poor communities and populations of colour. We will examine the broad array of dynamic connections between human health and the natural world. We will discuss the social justice implications of a range of environmental health problems. And we will examine current research into how coronaviruses, such as the one causing COVID-19, are transported in the environment. This course is in the Sediments and Life group for the Geosciences Major.

Requirements/Evaluation: Evaluation will be based on short weekly writing assignments as well as an individual project and poster presentation.

Prerequisites: No prerequisites

Enrollment Limit: 34

Enrollment Preferences: Preference to first-years, sophomores, and prospective Geosciences majors

Expected Class Size: 30

Grading: yes pass/fail option, yes fifth course option

Distributions: (D3) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 201 (D3) GEOS 207 (D3)

Difference, Power, and Equity Notes: Through a series of case studies, we will examine ways in which marginalised groups (whether due to poverty, race, or ethnicity) are disproportionately affected by environmental health issues. Themes of power and equity in terms of decision making, access to

knowledge, and funding availability, will be woven into all aspects of the class and will underpin our analysis of the science.

Attributes: ENVI Natural World Electives GEOS Group B Electives - Sediments + Life PHLH Nutrition, Food Security+Environmental Health

Not offered current academic year

ENVI 203 (F) Ecology (QFR)

Cross-listings: ENVI 203 BIOL 203

Secondary Cross-listing

This course combines lectures & discussion with field and indoor laboratory exercises to explore factors that determine the distribution and abundance of plants and animals in natural systems. The course begins with an overview of global environmental patterns and then builds from the population to ecosystem level. Throughout the course, we will emphasize the connection between basic ecological principles and current environmental issues. Selected topics include population dynamics (competition, predation, mutualism); community interactions (succession, food chains and diversity) and ecosystem function (biogeochemical cycles, energy flow). Laboratory activities are designed to help students build skills in data analysis and scientific writing.

Class Format: Six hours per week. Students will view pre-class lecture videos; class meetings will focus on discussion, synthesis, and application of course content.

Requirements/Evaluation: pre-class quizzes, lab reports, two mid-term exams, and a final exam

Prerequisites: BIOL 102, or ENVI 101 or 102, or permission of instructor

Enrollment Limit: 30

Enrollment Preferences: students planning to pursue Biology and/or ENVI

Expected Class Size: 30

Grading: no pass/fail option, no fifth course option

Unit Notes: satisfies the distribution requirement for the Biology major

Distributions: (D3) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 203 (D3) BIOL 203 (D3)

Quantative/Formal Reasoning Notes: Much of the material in this course centers on the interpretation and application of mathematical models used to describe ecological systems. The laboratory section of this course also contains a large data analysis component (based in R). Students are introduced to t-tests, chi-square analysis, and regression.

Attributes: ENVI Natural World Electives EVST Environmental Science EVST Living Systems Courses

Fall 2021

LEC Section: 01 MWF 10:00 am - 10:50 am Allison L. Gill

LAB Section: 02 T 1:00 pm - 4:00 pm Allison L. Gill

LAB Section: 03 W 1:00 pm - 4:00 pm Allison L. Gill

LAB Section: 04 R 1:00 pm - 4:00 pm Allison L. Gill

ENVI 204 (F) Colonialism, Capitalism and Climate Crisis

Cross-listings: GBST 233 AFR 233 ENVI 204

Secondary Cross-listing

Evolutions are part of human existence. Our collective understandings of the world, the economic realm, and our place in it also evolve. This course examines the transformations between human, nature and non-human species, specifically the relationship between the climate and the economy. Our starting point of the intellectual journey is the colonial imprint of human-ecological relations i.e. economic man, or Sylvia Wynter's conception of "ethno-class" man. We will consider social difference especially race as a central conjuncture of the changing relationship of capitalism and social organization to natural resource extraction, exploitation, technological knowledge, industrial development and resulting greenhouse gas accumulation and climate crises. We will also explore economic perspectives of climate change as a market failure, loss of economic value or a financial risk to stock portfolios that may be at odds with humane ways of organizing our collective worlds. The course exposes the hierarchies of social differences and inequalities (class, race, gender, species) under climate crisis to advance a reparatory approach that draws in experiences from social and

environmental movements that advance climate justice. Students will also be able evaluate situated political economic responses to the climate crisis.

Requirements/Evaluation: Blog post entries; research report on an emerging green technology (10 pages); recorded video / interview of an environmental justice movement/activist in the global South; reflections paper (8 pages); community case study on an environmental project tracing its histories (7 pages); participation (leading a discussion/presentation on a reading based on from contemporary/historical events)

Prerequisites: None

Enrollment Limit: 15

Enrollment Preferences: If over enrolled preference goes to Africana Studies and then Environmental Studies students.

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

GBST 233 (D2) AFR 233 (D2) ENVI 204 (D2)

Difference, Power, and Equity Notes: The course addresses from a global perspective and from different contexts how social groups, societies and organizations are being transformed under climate crisis.

Attributes: AFR Core Electives

Fall 2021

LEC Section: 01 Cancelled

LEC Section: 02 Cancelled

ENVI 205 (F) Geomorphology

Cross-listings: GEOS 301 ENVI 205

Secondary Cross-listing

Geomorphology is the study of landforms, the processes that shape them, and the rates at which these processes change the landscape in which we live. The course is designed for Geosciences majors and for environmental studies students interested in the evolution of Earth's surface and the ways our activities are changing the planet. We will examine the ways in which climatic, tectonic, and volcanic forces drive landscape evolution over relatively short periods of geologic time, generally thousands to a few millions of years. More recently, the impacts of human activity in reshaping landscapes, determining the movement of water, and changing climate could not be clearer. We will also examine how these impacts are affecting communities, including causes and possible solutions to environmental injustice. We will learn a range of practical skills for describing physical environments and for predicting how they change, including field surveys, GIS analysis, and numerical modelling. This course is in the Sediments and Life group for the Geosciences major.

Class Format: lecture, three hours per week and laboratory, three hours per week

Requirements/Evaluation: weekly lab exercises, a research project, and a midterm and final exam

Prerequisites: At least one 100-level and one 200-level GEOS or ENVI course or permission of instructor

Enrollment Limit: 18

Enrollment Preferences: GEOS and ENVI majors

Expected Class Size: 18

Grading: yes pass/fail option, yes fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 301 (D3) ENVI 205 (D3)

Attributes: AMST Space and Place Electives ENVI Natural World Electives EVST Environmental Science EXPE Experiential Education Courses
GEOS Group B Electives - Sediments + Life

Fall 2021

LEC Section: 01 TR 9:55 am - 11:10 am José A. Constantine

LAB Section: 02 R 1:00 pm - 4:00 pm José A. Constantine

ENVI 206 (S) Global Environmental Politics

This course examines the history and current status of international environmental cooperation and conflict. We will consider the interactions of nation-states, multilateral international organizations, non-governmental organizations, and social movements in the formation of transnational environmental policy and treaties. We will also examine non-state approaches to global environmental challenges. After reviewing competing explanations for the causes of global environmental problems and diverse disciplinary approaches to studying those issues, we will read case studies covering a range of topics. These include fresh water conflict, fisheries and oceans, climate change, waste and pollution, agriculture, pesticides, population and development, wildlife, forestry, and consumerism. The reading assignments are drawn from the fields of environmental and foreign policy history, political science, international relations, geography, and anthropology in order to develop an interdisciplinary approach to international policy analysis. The written assignments are a series of policy briefs. You will also be responsible for two oral presentations during the semester, related to the policy briefs.

Class Format: Depending on enrollment, some discussion may be scheduled outside of the class hours, as would be the case in a tutorial.

Requirements/Evaluation: 2-3 short writing assignments based on assigned readings (3 pages each), 2 oral presentations, discussion participation, 2 policy briefing papers based on library research (5 pages each)

Prerequisites: ENVI 101 or permission of the instructor

Enrollment Limit: 19

Enrollment Preferences: environmental studies majors and concentrators

Expected Class Size: 19

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Attributes: ENVI Environmental Policy EVST Social Science/Policy GBST Economic Development Studies Electives

Not offered current academic year

ENVI 207 (F) Economic Geology and Earth Resources

Cross-listings: GEOS 205 ENVI 207

Secondary Cross-listing

"If it can't be grown, it must be mined." We depend on the solid Earth for a huge array of resources. The metal in your soda can, the plastic in your Nalgene, the components of your computer, the glass in your window, the hydrocarbons being burned to keep you warm in the winter or to transport you in cars or aircraft, the cars and aircraft themselves: all are made of materials mined from the Earth. Right now there are more people building more houses, paving more roads, making more vehicles, more electronics, and more plastic packaging—all with geologic materials. As demand soars in both established and growing economies, and as we realize the environmental damage that can result from resource extraction and processing, the importance of understanding Earth's resources increases. Finding new deposits and managing those we have requires insight into the geology that underlies the location and origin of strategic Earth materials. This class introduces the geologic processes that control formation, distribution, and extent of materials reserves: dimension stone and gravel, base and precious metal ores, gemstones, petroleum, nuclear energy sources, and specialty materials for medical, technological, and military uses. This course is in the SOLID EARTH GROUP for the Geosciences major.

Class Format: 2.5 hours lecture per week and one 3 hour lab per week, including some field labs

Requirements/Evaluation: one hour exam, a final exam, lab exercises, and a group project

Prerequisites: one 100-level GEOS course or permission of instructor

Enrollment Limit: 18

Enrollment Preferences: sophomores and Geosciences majors

Expected Class Size: 18

Grading: no pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 205 (D3) ENVI 207 (D3)

Attributes: ENVI Natural World Electives GEOS Group C Electives - Solid Earth

Not offered current academic year

ENVI 208 (S) Saharan Imaginations (DPE) (WS)

Cross-listings: ARAB 209 ENVI 208 COMP 234

Secondary Cross-listing

Literary representations of the Sahara challenge facile assumptions about this undertheorized place. Approached mainly through the prism of adventure and exploitation, the desert is portrayed as a dead space. However, literature and film furnish a unique opportunity to engage critically with the ways Maghrebi and Middle Eastern culture production represents deserts and raises issues of fundamental importance to these societies. This course offers students the opportunity to engage in close readings of novels and film through the theme of the Sahara and Saharan space. Reading through the politics of human mobility and life in the desert will help students to understand how myth, memory, history, coloniality/postcoloniality, and a strong sense of ethics are deeply intertwined in the Saharan sub-genre of African and Middle Eastern literatures. Whether grappling with transcontinental issues of climate change, cannibalization of biodiversity or overexploitation of natural resources, desert-focused cultural production invites us to think critically about the politics of space and place as well as mobility and spatial control as they relate to this supposedly dead nature. Deconstructing reductive Saharanisms, students will see the desert for what it is, rather than what it is portrayed to be or stand for.

Class Format: hybrid

Requirements/Evaluation: active participation, short presentation, short weekly responses on GLOW, midterm exam, and final paper

Prerequisites: none

Enrollment Limit: 14

Enrollment Preferences: Students are admitted into the course on a first-come-first-serve basis. If the course is over-enrolled, preference will be given to Arabic Studies and Comparative Literature majors and certificates.

Expected Class Size: 14

Grading: yes pass/fail option, yes fifth course option

Distributions: (D1) (DPE) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

ARAB 209 (D1) ENVI 208 (D1) COMP 234 (D1)

Writing Skills Notes: Students will receive constant and extensive feedback on their written work. Students will write regular weekly responses on Glow, a reflection statement, two 5pp. papers for midterms, and one 10pp. final paper.

Difference, Power, and Equity Notes: Students will gain critical awareness of the imbrication of power, hegemony, economic injustice, and colonial policies in the disruption of indigenous conceptions of the Saharan space. Students will also be able to question representations of the Sahara as a dead or empty space by engaging with locally produced alternative conceptualizations of place. Finally, students will produce written assignments that address issues of power and environmental discrimination.

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 209 (F) Modern Climate (QFR)

Cross-listings: GEOS 309 ENVI 209

Secondary Cross-listing

What will happen to the Earth's climate in the next century? What is contributing to sea level rise? Is Arctic sea ice doomed? In this course we will study the components of the climate system (atmosphere, ocean, cryosphere, biosphere and land surface) and the processes through which they interact. Greenhouse gas emission scenarios will form the basis for investigating how these systems might respond to human activity. This course will explore how heat and mass are moved around the atmosphere and ocean to demonstrate how the geographic patterns of climate change arise. We will also focus on climate feedback effects--like the albedo feedback associated with sea ice and glacier loss--and how these processes can accelerate climate change. In labs we will learn MATLAB to use process and full-scale climate models to investigate the behavior of these systems in response to increasing greenhouse gasses in the atmosphere. This course is in the Oceans and Climate group for the Geosciences major.

Requirements/Evaluation: 4 multi-week lab projects and several short quizzes

Prerequisites: Any of GEOS 100, GEOS 103, ENVI 102, GEOS 215, or permission of instructor

Enrollment Limit: 30

Enrollment Preferences: GEOS and ENVI majors

Expected Class Size: 20

Grading: yes pass/fail option, yes fifth course option

Distributions: (D3) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 309 (D3) ENVI 209 (D3)

Quantative/Formal Reasoning Notes: Labs consist of a series of numerical climate modeling projects, which require significant quantitative and logical reasoning.

Attributes: ENVI Natural World Electives EVST Environmental Science EVST Methods Courses GEOS Group A Electives - Climate + Oceans

Not offered current academic year

ENVI 210 (F) Environmentalism in Contemporary Art and Politics, 1960s to Present

Cross-listings: ENVI 210 ARTH 214

Secondary Cross-listing

Over the semester we will address historical and contemporary debates on environmental politics from the critical perspective of artists, activists, and scholars from the 1960s to today. Organized thematically, this course addresses the aesthetics and politics of environmentalism alongside larger debates in the visual arts--including decolonial practices, globalization, conceptualism, collaboration and authorship, aesthetic reception, and the artistic transmission of ideas. We will place particular focus on lens-based and moving-image media practices with respect to the conceptualization of nature, as well as delve into the interrelation of materials and media in our greater cultural reckoning with climate change and environmental justice. Experiential engagement in the forms of screenings, group assignments, and the creation of site-specific and creative works in all media will amplify our art and media historical study of environmental politics in the public sphere. Students will also conduct independent research and essay writing in order to analyze the way we interpret, engage, alter, and mediate the natural world.

Requirements/Evaluation: Bi-monthly response papers (2 pages); participation in class and online forums; one 6-8 page paper; and a final media documentation project with accompanying written concept (5-7 pages)

Prerequisites: None

Enrollment Limit: 20

Enrollment Preferences: Art Majors

Expected Class Size: 20

Grading: yes pass/fail option, yes fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 210 (D1) ARTH 214 (D1)

Attributes: ARTH post-1800 Courses ENVI Humanities, Arts + Social Science Electives

Fall 2021

LEC Section: 01 T 2:35 pm - 5:15 pm F 2:35 pm - 3:50 pm Alena Williams

ENVI 211 (S) Race, Environment, and the Body

Cross-listings: AMST 211 ENVI 211 AFR 211 SOC 211

Secondary Cross-listing

This course is organized around three distinct, but overlapping, concerns. The first concern is how polluting facilities like landfills, industrial sites, and sewage treatment plants are disproportionately located in communities of color. The second concern is the underlying, racist rationales for how corporations, in collaboration with state agencies, plot manufacturers of pollution. The final concern is how the environmental crises outlined in the first two sections of the course are experienced in the body. In reviewing a range of Black cultural productions--like literature, scholarship, music, and film--we will not only consider how environmental disparities physically affect human bodies, but also how embodiments of eco-crises lend to

imaginaries of the relationship between the self and the natural world.

Class Format: discussion

Requirements/Evaluation: class participation, 2-3 short papers (5-7 pages), and a self-scheduled final

Prerequisites: none

Enrollment Limit: 20

Enrollment Preferences: preference given to AFR concentrators, ENVI concentrators and majors, and ANSO majors.

Expected Class Size: 20

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

AMST 211 (D2) ENVI 211 (D2) AFR 211 (D2) SOC 211 (D2)

Attributes: AFR Core Electives AMST Comp Studies in Race, Ethnicity, Diaspora AMST Space and Place Electives ENVI Humanities, Arts + Social Science Electives PHLH Nutrition, Food Security+Environmental Health PHLH Social Determinants of Health

Spring 2022

LEC Section: 01 Cancelled

ENVI 212 (S) The Economics and Ethics of CO2 Offsets (WS)

Cross-listings: POEC 214 ENVI 212 ECON 214

Secondary Cross-listing

Some electric utilities and other CO2 emission polluters are allowed to purchase carbon offsets to achieve a portion of their mandated emissions cuts, in effect, to pay others to reduce carbon emissions in their stead. Some individuals, college and universities, and for-profit and non-profit institutions have chosen voluntarily to purchase carbon offsets as a way of reducing their carbon footprint. But do offsets actually succeed in reducing carbon emissions? What separates a legitimate offset from one that is not? How should we measure the true impact of an offset? How do carbon offsets compare to other policies for reducing carbon emissions in terms of efficiency, equity, and justice? Is there something inherently wrong about "commodifying" the atmosphere? Is there something inherently wrong about selling or buying the right to pollute? Should colleges and universities be using the purchase of offsets to achieve "carbon neutrality?"

Class Format: This tutorial will be taught remotely via Zoom meetings. Each student will be the tutorial partner of one other student, and each pair of tutorial partners will meet with the instructor for 75 minutes each week. Individual "office hour meetings" will also occur via Zoom meetings.

Requirements/Evaluation: a 5- to 7-page paper every other week; a 3-page written critique every other week; one re-write paper

Prerequisites: ECON 110 or the equivalent, permission of instructor

Enrollment Limit: 10

Enrollment Preferences: first-year students and sophomores intending to major in Economics and/or to major or concentrate in Environmental Studies

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

POEC 214 (D2) ENVI 212 (D2) ECON 214 (D2)

Writing Skills Notes: Each student will write five 5-7 page papers on which I will provide written feedback regarding grammar, style, and argument. Each student will write five 3-page critiques of their partner's papers. As the final assignment, each student will revise one of their five papers.

Attributes: ENVI Environmental Policy POEC Comparative POEC/Public Policy Courses

Not offered current academic year

ENVI 213 (F) Introduction to Environmental and Natural Resource Economics (QFR)

Cross-listings: ECON 213 ENVI 213

Secondary Cross-listing

We'll use economics to learn why we harm the environment and overuse natural resources, and what we can do about it. We'll talk about whether and how we can put a dollar value on nature and ecosystem services. We'll study cost benefit analysis, pollution in general, climate change, environmental justice, natural resources (like fisheries, forests, and fossil fuels), and energy. We will take an economic approach to global sustainability, and study the relationship between the environment and economic growth and trade. Consideration of justice and equity will be woven through the whole semester.

Requirements/Evaluation: problem sets, short essays, final paper; intermediate assignments may include poster, presentation, brief writing assignment

Prerequisites: ECON 110 or equivalent

Enrollment Limit: 25

Enrollment Preferences: first-year and sophomore students

Expected Class Size: 25

Grading: yes pass/fail option, yes fifth course option

Unit Notes: this course will count toward both the Environmental Studies major and concentration

Distributions: (D2) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 213 (D2) ENVI 213 (D2)

Quantative/Formal Reasoning Notes: We will use formal theory expressed in math and graphs, perform calculations, and consume statistical data.

Attributes: ENVI Environmental Policy EVST Social Science/Policy MAST Interdepartmental Electives POEC Comparative POEC/Public Policy Courses

Not offered current academic year

ENVI 214 (S) Mastering GIS

Cross-listings: GEOS 214 ENVI 214

Secondary Cross-listing

The development of Geographic Information Systems (GIS) has allowed us to investigate incredibly large and spatially complex data sets like never before. From assessing the effects of climate change on alpine glaciers, to identifying ideal habitat ranges for critically endangered species, to determining the vulnerability of coastal communities to storms, GIS tools have opened the door for important, large-scale environmental analyses. And as these technologies improve, our ability to understand the world grows ever greater. This course will teach you how to use GIS tools to investigate environmental problems. We will review fundamental principles in geography, the construction and visualization of geospatial datasets, and tools for analyzing geospatial data. Special attention will also be given to analysis of remotely sensed (satellite) imagery and to collection of field data. By the end of the course, you will be able to conduct independent GIS-based research and produce maps and other geospatial imagery of professional quality.

Class Format: lecture, three hours per week and laboratory, three hours per week

Requirements/Evaluation: weekly lab exercises, weekly quizzes, and a research project

Prerequisites: at least one course in Geosciences or Environmental Studies

Enrollment Limit: 18

Enrollment Preferences: Geosciences majors and Environmental Studies majors and concentrators.

Expected Class Size: 18

Grading: yes pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 214 (D3) ENVI 214 (D3)

Attributes: ENVI Natural World Electives EVST Methods Courses EXPE Experiential Education Courses

LEC Section: 01 MW 11:00 am - 12:15 pm José A. Constantine

LAB Section: 02 M 1:00 pm - 4:00 pm José A. Constantine

LAB Section: 03 W 1:00 pm - 4:00 pm José A. Constantine

ENVI 215 (F) Climate Changes

Cross-listings: GEOS 215 ENVI 215

Secondary Cross-listing

In recent years, there has been a growing public and scientific interest in the Earth's climate and its variability. This interest reflects both concern over future climate changes resulting from anthropogenic increases in atmospheric greenhouse gases and growing recognition of the economic impact of "natural" climate variability (for example, El Niño events), especially in the developing world. Efforts to understand the Earth's climate system and predict future climate changes require both study of parameters controlling present day climate and detailed studies of climate changes in the past. In this course, we will review the processes that control the Earth's climate, like solar radiation, the greenhouse effect, ocean circulation, configuration of continents, and positive and negative feedbacks. At the same time, we will review the geological record of climate changes in the past, examining their causes. Laboratories and problem sets will emphasize developing problem solving skills as well as sampling and interpreting geological archives of climate change. This course is in the Oceans and Climate group for the Geosciences major.

Class Format: This class has three scheduled lectures per week, and one lab meeting per week which will consist of lab exercises, problem solving and discussion

Requirements/Evaluation: lab exercises and problem sets (25%), three exams (50%), and a final project (25%) where students will collect, analyze, and interpret data

Prerequisites: 100-level course in GEOS, CHEM, or PHYS or ENVI 102 or permission of instructor

Enrollment Limit: 16

Enrollment Preferences: Geosciences and Environmental Studies majors

Expected Class Size: 16

Grading: yes pass/fail option, yes fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 215 (D3) ENVI 215 (D3)

Attributes: ENVI Natural World Electives EVST Environmental Science EXPE Experiential Education Courses GEOS Group A Electives - Climate + Oceans MAST Interdepartmental Electives

Not offered current academic year

ENVI 216 (S) Philosophy of Animals

Cross-listings: ENVI 216 PHIL 216

Secondary Cross-listing

Animals are and always have been part of human life. To name just a few ways: We treat animals as companions, as food, as objects of wonder in the wild, as resources to be harvested, as testing grounds for science, and as religious sacrifice. The abstract philosophical question before us is, *what are animals such that they can be all these things?* In this course we aim to engage that abstract question through two more focused projects. Firstly, we will try to understand the mental lives of non-human animals. Secondly, we will try to make sense of the moral dimensions of our relationship to animals. Throughout we will aim to fuse a rigorous scientific perspective with more humanistic themes and philosophical inquiry. Topics include sentience, animal cognition, language in non-human animals, empathy and evolution, the history of domestication, animal rights, cross-cultural views on animals, arguments against and for vegetarianism and veganism, the morality of zoos, hunting and fishing, and pets and happiness.

Class Format: This course is wholly remote and can only be taken synchronously (i.e., students will be expected to attend seminar on zoom during the scheduled time and no recording will be made).

Requirements/Evaluation: four 3-to-4 page papers and one 8-to-10 page final paper. In addition, students are required to attend remotely at least four talks in the speaker series associated with the course. These will be during the Friday course time slot. (When there is no speaker, there will not be class during that slot, so class itself will be solely on Mondays and Wednesdays.)

Prerequisites: none, though at least one course in philosophy is recommended.

Enrollment Limit: 16

Enrollment Preferences: students with at least one previous philosophy or cognitive science course; there is no need to email the professor in advance to indicate special interest in the course.

Expected Class Size: 16

Grading: no pass/fail option, no fifth course option

Unit Notes: meets Contemporary Metaphysics & Epistemology requirement only if registration is under PHIL

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 216 (D2) PHIL 216 (D2)

Attributes: COGS Interdepartmental Electives ENVI Humanities, Arts + Social Science Electives PHIL Contemp Metaphysics + Epistemology Courses

Not offered current academic year

ENVI 217 (F) Landscape, Place and Power

Cross-listings: AMST 216 ENVI 217

Primary Cross-listing

How does culture shape the way we imagine, use, and experience the physical environment, and how does the physical environment shape culture in turn? What can landscapes tell us about the values, beliefs, and ideas of the people who make them? What is the relationship between place and social power? This course will explore the various ways in which scholars from a broad range of disciplines have sought to answer these questions by incorporating insights from social theory and cultural criticism. Focusing on studies of place and landscape in the Americas from the time of European colonization to the present, it will examine key works from fields such as cultural geography, environmental history, ecocriticism, environmental philosophy, and anthropology, and it will survey the major methodological and theoretical commitments that unite these fields.

Requirements/Evaluation: three 5- to 7-page essays; several shorter writing assignments

Prerequisites: ENVI 101 or permission of instructor

Enrollment Limit: 19

Expected Class Size: 15

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

AMST 216 (D2) ENVI 217 (D2)

Attributes: AMST Critical and Cultural Theory Electives AMST Space and Place Electives ENVI Humanities, Arts + Social Science Electives EVST Culture/Humanities

Not offered current academic year

ENVI 218 (S) "Ecologismo": Literature, Culture and the Environment in Latin America (DPE)

Cross-listings: RLSP 214 ENVI 218

Secondary Cross-listing

How have Latin American authors and artists responded to environmental concerns, from the logging and rubber booms that threatened the Amazon in the early 20th century to contemporary global warming? How do the realities of Latin American societies--including massive disparities of wealth and poverty; the cultural and political impacts of the region's indigenous populations; and the complex histories of colonialism, dependency and neoliberalism--inform Latin American responses to environmental issues? How does Latin America's environmental imaginary differ from those of the U.S. and Europe? In this course we will explore these issues and more through literature and other cultural texts from Latin America. We will consider short stories and novellas by authors including Horacio Quiroga (Uruguay), Luis Sepúlveda (Chile), Mempo Giardinelli (Argentina), and Ana Cristina Rossi (Costa Rica); poetry by Esthela Calderón (Nicaragua), Juan Carlos Galeano (Colombia), Homero Aridjis (Mexico); the paintings of Tomás Sánchez (Cuba); and feature films as well as shorter documentaries. In Spanish.

Requirements/Evaluation: brief response papers, as well as three 5- to 7-page essays based on close-readings of literary and cultural texts

Prerequisites: RLSP 105, placement exam results, or permission of the instructor

Enrollment Limit: 19

Enrollment Preferences: Spanish and Environmental Studies majors

Expected Class Size: 12

Grading: no pass/fail option, yes fifth course option

Distributions: (D1) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

RLSP 214 (D1) ENVI 218 (D1)

Difference, Power, and Equity Notes: This course is inspired by and organized around Arturo Escobar's notion of "the political ecology of difference." our work throughout the semester aims to understand the myriad ways in which "difference"--economic, ecological, and cultural--informs Latin American responses to environmental degradation.

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 219 (F) Evolution of and on Volcanic Islands (WS)

Cross-listings: GEOS 220 ENVI 219

Secondary Cross-listing

Plate tectonic theory accounts for the vast majority of volcanic islands in ocean basins. They form above mantle plume hot spots (Hawaiian and Galapagos Islands), subduction zones (Aleutian and Indonesian arcs), and mid-ocean ridges (Azores and Ascension Island). Iceland is unusual because it is located above a hot spot and the mid-Atlantic ridge. Each plate tectonic setting produces chemically distinctive magmas, and the lifespan of volcanic islands varies widely. Islands above hot spots may be geographically remote and emergent for only several million years, but be part of a long-lived sequence of islands that persists for over a hundred million years. In contrast, island arc volcanoes belong to long geographically continuous chains of volcanoes, commonly in close proximity to continents. This tutorial explores the geologic evolution and lifespan of volcanic islands from formation to submergence, and searches for correlations between these characteristics and plate tectonic setting. We will also consider how geographic isolation, areal extent, lifespan, and climate affect biological evolution on volcanic islands. There will be weekly tutorial meetings with pairs of students, and students will alternate writing papers on assigned topics. This course is in the Solid Earth group for the Geosciences major.

Class Format: One-hour weekly meetings with tutorial partner and instructor

Requirements/Evaluation: five 5-page papers and critiques of partner's papers

Prerequisites: 100-level GEOS course or permission of instructor

Enrollment Limit: 10

Enrollment Preferences: Geosciences majors and students with a demonstrated interest in geosciences

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D3) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 220 (D3) ENVI 219 (D3)

Writing Skills Notes: Students will write five 5-page papers and will receive instructor feedback on how to improve their writing skills and formulate sound arguments.

Attributes: ENVI Natural World Electives GEOS Group C Electives - Solid Earth

Not offered current academic year

ENVI 220 (S) Field Botany and Plant Natural History

Cross-listings: ENVI 220 BIOL 220

Secondary Cross-listing

This field-lecture course covers the evolutionary and ecological relationships among plant groups represented in our local and regional flora. Lectures focus on the evolution of the land plants, the most recent and revolutionary developments in plant systematics and phylogeny, characteristics of plant families, the cultural and economic uses of plants and how plants have shaped our world. The labs cover field identification, natural history and the

ecology of local species.

Class Format: both field and indoor laboratories

Requirements/Evaluation: based on two hour exams, field quizzes, a final project, and a final exam

Prerequisites: none

Enrollment Limit: 30

Enrollment Preferences: Biology majors, and Environmental Studies majors & concentrators

Expected Class Size: 24

Grading: no pass/fail option, yes fifth course option

Unit Notes: satisfies the distribution requirement for the Biology major

Materials/Lab Fee: there is a charge for the lab manual; the sketchbook and hand lens can be self-provided or purchased from the department

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 220 (D3) BIOL 220 (D3)

Attributes: ENVI Natural World Electives EVST Living Systems Courses EXPE Experiential Education Courses PHLH Nutrition, Food Security+Environmental Health

Spring 2022

LEC Section: 01 MWF 10:00 am - 10:50 am Joan Edwards

LAB Section: 02 T 1:00 pm - 4:00 pm Joan Edwards

LAB Section: 03 W 1:00 pm - 4:00 pm Joan Edwards

ENVI 222 (F) Examining Inconvenient Truths: Climate Science meets U.S. Senate Politics (WS)

Cross-listings: GEOS 221 ENVI 222 LEAD 221

Secondary Cross-listing

Former President Barack Obama once said: "There's one issue that will define the contours of this century more dramatically than any other, and that is the urgent threat of a changing climate." While consensus regarding the causes and impacts of climate change has been growing steadily among scientists and researchers (and to some extent, the general public) over the past two decades, the U.S. has yet to confront this issue in a manner consistent with its urgency. This lack of action in the U.S. is at least partly due to the fact that science provides necessary but insufficient information towards crafting effective climate change legislation and the unfortunate fact that climate change has become a highly partisan issue. The primary objective of this tutorial will be to help students develop a greater understanding of the difficulties associated with crafting climate change legislation, with an emphasis on the role of science and politics within the legislative process. To this end, the tutorial will address how the underlying scientific complexities embedded in most climate policies (e.g., offsets, carbon capture and sequestration, uncertainty and complexity of the climate system, leakage) must be balanced by and blended with the different operational value systems (e.g., economic, social, cultural, religious) that underlie U.S. politics. Over the course of this tutorial, students will develop a nuanced sense of how and when science can support the development of comprehensive national climate change legislation within the current partisan climate. This course will take a practical approach, where students will craft weekly policy oriented documents (e.g., policy memos, action memos, research briefs) targeted to selected members of the current U.S. Senate Environment and Public Works Committee, the committee that has historically held jurisdiction over a majority of the major climate change bills that have moved through the legislative process. This course is in the Oceans and Climate group for the Geosciences major.

Requirements/Evaluation: weekly papers (2 - 5 pages in length) and a final oral presentation

Prerequisites: none

Enrollment Limit: 10

Enrollment Preferences: sophomores, Geosciences and Environmental Studies juniors and seniors

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D3) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 221 (D3) ENVI 222 (D3) LEAD 221 (D3)

Writing Skills Notes: You will learn to write in a variety of policy-focused formats

Attributes: ENVI Environmental Policy EXPE Experiential Education Courses GEOS Group A Electives - Climate + Oceans

Not offered current academic year

ENVI 224 (F) The Rise and Fall of Civilizations

Cross-listings: ANTH 214 ENVI 224

Secondary Cross-listing

Over the centuries, philosophers and historians have asked how societies evolved from simple hunter-gatherer bands to complex urban civilizations. Human prehistory and history have shown the repeated cycles of the rise, expansion and collapse of early civilizations in both the Old and New World. What do the similarities and differences in the development of these first civilizations tell us about the nature of societal change, civilization and the state, and human society itself? The course will examine these issues through an introductory survey of the earliest civilizations in Mesopotamia, Egypt, India, Mesoamerica and South America. Classical and modern theories on the nature, origin, and development of the state will be reviewed in light of the archaeological evidence.

Class Format: Class discussion and debates will complement lecture with powerpoint presentation. In the Fall 2020, the course will have a hybrid format. In person and remote students will attend lectures or class discussions during the regular twice-a-week schedule, with an additional synchronous session for remote students to address questions. If remote students cannot attend additional Q&A session, open office hours will also be available.

Requirements/Evaluation: midterm, final exam, 15pp analytical paper, two quizzes

Prerequisites: none

Enrollment Limit: 20

Enrollment Preferences: First and second years.

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ANTH 214 (D2) ENVI 224 (D2)

Attributes: ENVI Humanities, Arts + Social Science Electives

Fall 2021

LEC Section: 01 TF 2:35 pm - 3:50 pm Antonia E. Foias

ENVI 225 (F) Sustainable Food & Agriculture

Cross-listings: BIOL 225 ENVI 225

Secondary Cross-listing

A tutorial course investigating patterns, processes, and stability in human-dominated, food production systems. The course will examine sustainable food and agriculture from an ecological perspective. Topics will include: changes in diversity, concentration, and scale, flows of energy, circulation (or not) of fertilizer nutrients, carbon balances in soils, and stability of food production, processing, and distribution ecosystems. A day-long field experience will take place on a local farm.

Requirements/Evaluation: writing assignments, tutorial presentation, performance in the role of paper critic, and course participation

Prerequisites: BIOL 102 or ENVI 102

Enrollment Limit: 10

Enrollment Preferences: open to sophomores, juniors, and seniors, with preference given to sophomores over juniors and seniors

Expected Class Size: 8

Grading: no pass/fail option, no fifth course option

Unit Notes: satisfies the distribution requirement for the Biology major

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

BIOL 225 (D3) ENVI 225 (D3)

Attributes: ENVI Natural World Electives

Not offered current academic year

ENVI 226 (S) Climate Data Analysis

Cross-listings: GEOS 227 ENVI 226

Secondary Cross-listing

In this tutorial, students will learn how to access and work with the datasets that show how our climate is changing. The course introduces a series of analytical methods used in climate science, and students then apply those 'recipes' to data of their choosing to research parts of the climate system. Over the course of the term, a student might investigate the seasonality of global atmospheric carbon dioxide levels, maps of sea level anomalies, and the impact El Niño patterns have on Western US rainfall. Students will present their findings, and their insights into the particular aspect of the climate system, at weekly tutorial meetings. Analytical approaches covered in the class include climatologies, time series analysis (trends, periodicity, and autocorrelation), anomaly maps, composites, and zonal/meridional averaging. As for regions and climate systems students can explore: the sky is the limit. This course is in the Oceans and Climates group for the Geosciences major.

Class Format: Asynchronous recorded lectures will provide instruction on new analytical techniques every two weeks. Students will meet in pairs for one hour every week with the instructor: each student will present the results of their data analysis and their interpretation for discussion every other week.

Requirements/Evaluation: Five 3-4 page papers including figures made from analyzing data.

Prerequisites: At least one GEOS or ENVI course

Enrollment Limit: 10

Enrollment Preferences: Students with a strong interest in Geosciences and Geoscience majors.

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 227 (D3) ENVI 226 (D3)

Attributes: ENVI Natural World Electives EVST Environmental Science GEOS Group A Electives - Climate + Oceans

Spring 2022

TUT Section: T1 TBA Alice C. Bradley

ENVI 228 (F) Water as a Scarce Resource

Cross-listings: ECON 228 ENVI 228

Secondary Cross-listing

For a variety of reasons including environmental pollution, urbanization, changing agricultural techniques, resource mismanagement, and the consequences of climate change, water is becoming a scarce resource even in places where it was relatively plentiful in the past, and it is likely to become an increasingly scarce resource over the coming decades. In this course we will use basic economic models to consider policy issues relating to water: Is access to water a basic human right, and if so, what market and non-market mechanisms should play a role in water allocation? Does public ownership of water improve the way it is provided and used? Why do societies differ in their approaches to allocating water and are some systems better than others? What does it mean to have a property right to water? Could private property rights to water help address the water pollution problem? How can societies change their water-related property rights, regulations and social institutions when individuals have implicit or explicit rights to the institutional status quo? Who has the right to water that crosses international boundaries? How should societies allocate water across generations?

Class Format: meeting with the instructor in pairs for an hour each week

Requirements/Evaluation: a 5- to 7-page paper every other week (5 in all), prepare and present a written critique of their partners' papers in

alternate weeks, and revise and re-write one of their five papers; evaluation will be based on the quality of the papers and on the quality of the student's oral presentations and commentary on the work of their colleagues

Prerequisites: ECON 110 or equivalent

Enrollment Limit: 10

Enrollment Preferences: first-year students and sophomores intending to major in Economics and/or to major or concentrate in Environmental Studies, and to students who are already major or concentrators in those subjects

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 228 (D2) ENVI 228 (D2)

Attributes: AMST Space and Place Electives POEC Comparative POEC/Public Policy Courses

Not offered current academic year

ENVI 229 (S) Environmental History

Cross-listings: ENVI 229 HIST 264

Primary Cross-listing

This course is an introduction to Environmental History: the study of how people have shaped environments, how environments have shaped human histories, and how cultural change and material change are intertwined. As such, it challenges traditional divides between the humanities and the sciences. Taking U.S. environmental history as our focus, we will strive to understand the historical roots of contemporary environmental problems, such as species extinction, pollution, and climate change. We will take field trips to learn to read landscapes for their histories and to examine how past environments are represented in museum exhibits, digital projects, and physical landscapes. And we will develop original arguments and essays based on archival research. It is imperative that we understand this history if we are to make informed and ethical environmental decisions at the local, national, and global scale.

Class Format: with field trips

Requirements/Evaluation: several short essays; final research project

Prerequisites: ENVI 101 or permission of instructor

Enrollment Limit: 18

Enrollment Preferences: Environmental Studies majors and concentrators; History majors

Expected Class Size: 15

Grading: yes pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 229 (D2) HIST 264 (D2)

Attributes: ENVI Humanities, Arts + Social Science Electives EVST Culture/Humanities EXPE Experiential Education Courses HIST Group F Electives - U.S. + Canada

Not offered current academic year

ENVI 230 (S) Geographies of Food Justice (DPE)

Recent scholarship & reporting clearly show inequalities of race, class, & gender in access to adequate, nutritious, & culturally appropriate food. Observers often call poor, segregated urban areas food *deserts*, evoking a landscape dominated by fast food & devoid of vegetables. Farmer & food sovereignty activist Leah Penniman instead refers to these places as experiencing food *apartheid* to emphasize that the inequalities are the result of structural racism. Notably, *deserts* & *apartheid* are both spatial metaphors, referring not only to the environments in which people eat, but also the systems of social, political, & economic power that define those places. This course considers the relationship between food, power, & geography by looking at such places. We ask: How does *where* people eat shape *what* they eat? What can we learn about structural racism & settler colonialism by looking at the diverse sites of food insecurity? How do people experience a globalized food system in uniquely localized ways? How do struggles over land & labor shape the possibilities for justice in the food system? Does it matter where our food is produced? We begin with an exploration of the

concepts of food security, sovereignty, and justice. Subsequent units include a critical reevaluation of the concept of food deserts, drawing on works by scholars who question the term's usefulness. Next, we consider disruptions to indigenous hunting & fishing practices from settler colonialism-induced climate change & toxic contamination. Finally, we evaluate evidence about whether local food is the solution to the social and environmental problems with our food systems. We will read works by geographers, anthropologists, sociologists, planners, & journalists, among others. Several "lab" sessions throughout the semester introduce participants to data analysis tools used by policymakers and activists working on food security and justice.

Requirements/Evaluation: 2-3 short papers on assigned topics, several lab exercises focused on data analysis, final research paper, class discussion, occasional short oral presentations

Prerequisites: ENVI 101 or permission

Enrollment Limit: 19

Enrollment Preferences: Environmental studies majors and concentrators

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option

Distributions: (D2) (DPE)

Difference, Power, and Equity Notes: This course considers how race, racism, and class shape access to food. We will discuss accountability within the food movement, and discuss ways to address inequalities in this area.

Attributes: ENVI Humanities, Arts + Social Science Electives PHLH Nutrition, Food Security+Environmental Health

Spring 2022

SEM Section: 01 TF 2:35 pm - 3:50 pm April Merleaux

ENVI 231 (S) Africa and the Anthropocene (DPE)

Cross-listings: STS 231 ENVI 231 AFR 231

Primary Cross-listing

Despite its low contributions to global carbon emissions, the continent of Africa is predicted to experience some of the worst effects of climate change. This interdisciplinary course investigates the causes and consequences of this troubling contradiction. It positions the African continent as an important site for understanding how legacies of empire, racial and gendered inequality, resource extraction, and capital accumulation impact contemporary global environmental politics. Students will engage theoretical texts, reports from international organizations, films, novels, and web-based content. Topics include: humanism/post-humanism; migration and displacement; representations of conflict; and sustainable development.

Requirements/Evaluation: Assignments include: short written commentaries, current event analysis, presentations, and a final analytical essay

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: Environmental Studies majors and concentrators

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 231 (D2) ENVI 231 (D2) AFR 231 (D2)

Difference, Power, and Equity Notes: Africa and the Anthropocene considers inequity in environmental politics from the vantage of the African continent. Through selected readings and classroom discussions students will tackle questions of power, racial and gendered difference, empire, and economic stratification. The course contributes to the DPE requirement by helping students to develop skills to better analyze abiding challenges in global society.

Attributes: ENVI Humanities, Arts + Social Science Electives GBST African Studies Electives GBST Economic Development Studies Electives

Spring 2022

SEM Section: 01 MR 2:35 pm - 3:50 pm Brittany Meché

ENVI 232 (S) The Garden in the Ancient World

Cross-listings: COMP 235 REL 235 CLAS 235 ENVI 232

Secondary Cross-listing

Drawing on the literature, art, and archaeology of ancient gardens and on real gardens of the present day, this course examines the very nature and experience of the garden and the act of gardening. Using a multi-disciplinary approach, we will explore the garden as a paradise; as a locus for philosophical discussion and religious encounter; as a site of labor, conquest, and resistance; and as a place for solace, inspiration, and desire. This course will be grounded in crucial readings from antiquity, such as the Hebrew Bible, Homer, Sappho, Cicero, Lucretius, Vergil, Horace, Columella, and Augustine, and in the perspectives of more modern writers, from Jane Austen and Tom Stoppard to contemporary cultural historian George McKay. Ultimately, our goal is to analyze conceptions and expressions of beauty, power, and love-in the garden. All readings are in translation.

Requirements/Evaluation: class participation, short written assignments, and a final project

Prerequisites: none

Enrollment Limit: 10

Enrollment Preferences: Classics majors

Expected Class Size: 10

Grading: no pass/fail option, yes fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

COMP 235 (D1) REL 235 (D2) CLAS 235 (D1) ENVI 232 (D1)

Attributes: ENVI Humanities, Arts + Social Science Electives

Spring 2022

SEM Section: 01 TF 2:35 pm - 3:50 pm Nicole G. Brown

ENVI 233 (S) Latin American Environmental Literature and Cultural Production (DPE)

Cross-listings: RLSP 216 ENVI 233

Secondary Cross-listing

This foundational course explores a wide array of ecocultural texts from Latin America, ranging from accounts of Europeans' first arrival to the crisis of mass extinction and anthropogenic climate change today. In between we consider an eclectic mix of styles and genres, including poetry, essays, prose fiction and speeches produced by a varied group of cultural agents. We read classic texts by canonical figures (José Martí's "Our América," the *Popol vuh*), which take on new meaning in the current context, as well as some little-known gems of ecological consciousness. Readings and discussion trace connections between environmental thought and the region's long and multi-layered history of colonialism, and students are encouraged to develop their own positions by responding to some of the leading theoretical discourses that animate the field of Latin American ecocriticism: decolonial and creole ecologies, ecofeminism, transcultural materialism, and postdevelopment. Conducted in English.

Class Format: This class will be fully remote. Students are expected to be active participants at all scheduled class meetings; there may be some additional asynchronous activities.

Requirements/Evaluation: Students will write and revise three formal essays over the course of the semester. There will also be shorter written assignments and intermittent discussion-leading.

Prerequisites: None.

Enrollment Limit: 15

Enrollment Preferences: Preference given to students majoring in Spanish or Environmental Studies.

Expected Class Size: 15

Grading: yes pass/fail option, yes fifth course option

Distributions: (D1) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

RLSP 216 (D1) ENVI 233 (D1)

Difference, Power, and Equity Notes: This course meets the goals of the DPE requirement in that it focalizes the current environmental crisis

through the long history of political, economic and cultural struggles in Latin America. We examine the genealogies of environmental culture, tracing the emergence of ecofeminism, for example, through generations of writers. We also examine the phenomenon of creolization and its relationship to the environmental cultures of Latin America's originary peoples.

Attributes: ENVI Humanities, Arts + Social Science Electives EVST Culture/Humanities

Not offered current academic year

ENVI 234 (S) Economics of Developing Countries (DPE)

Cross-listings: ENVI 234 ECON 204

Secondary Cross-listing

The leaders of developing countries almost universally proclaim "economic development" to be their eventual destination, but it is not easy to visualize the journey. Is rapid economic growth sufficient to generate development, or do governments need to invest proactively in health, education and social protection? Can agriculture support incomes and provide jobs, or is urban industrial development a prerequisite? How do households in developing countries insure themselves against adverse outcomes? Can policies enable entrepreneurship and innovation in such economies? Is it true that corruption is a significant obstacle? Has the climate crisis upended our traditional models to the point where we need to rethink the notion of development? How does the global COVID-19 pandemic threaten the progress developing countries have achieved, and what policy responses will be most effective in addressing the crisis? The class will introduce these and other issues, as analyzed by economists.

Class Format: discussion

Requirements/Evaluation: short essays/assignments; two individual take-home exams; final group project

Prerequisites: one ECON class at Williams or prior course deemed equivalent by the Economics Department

Enrollment Limit: 25

Enrollment Preferences: first-year and sophomore students

Expected Class Size: 25

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 234 (D2) ECON 204 (D2)

Difference, Power, and Equity Notes: This course provides a setting for students to learn about the causes and consequences of poverty in developing countries. It requires students to engage with questions of political and economic power, stressing attentiveness to how market relationships may not generate welfare-maximizing opportunities for poor and marginalized populations. Through exercises and a group project, the course builds analytical and empirical skills for diagnosing and addressing constraints on economic development.

Attributes: ENVI Environmental Policy GBST African Studies Electives GBST Economic Development Studies Electives POEC Comparative POEC/Public Policy Courses

Spring 2022

LEC Section: 01 M 7:00 pm - 9:40 pm Michael Samson

ENVI 235 (S) Survival and Resistance: Environmental Political Theory

Cross-listings: ENVI 235 PSCI 235

Secondary Cross-listing

Contemporary struggles to reverse environmental destruction and establish sustainable communities have prompted some political theorists to rethink longstanding assumptions about politics and its relationship to nature. Does the environment have "rights"? What, if anything, is the difference between an ecosystem and a political community? Is democracy dangerous to the planet's health? Are environmental protections compatible with political freedom? How is the domination or conquest of nature connected with domination and conquest within human societies? What does justice demand in an age of climate change? In this class, we will consider the promise and limits of political theory to illuminate present day environmental crises and foster movements to overcome them. We will engage classic texts that helped to establish political theory's traditional view of nature as a resource, as well as contemporary texts that offer alternative, ecological understandings of nature and its entwinements with politics. Class will be driven primarily by discussion. Students will have significant responsibility for setting the agenda for discussions through informal writing submitted

prior to class. As a writing intensive course, attention to the writing process and developing an authorial voice will be a recurrent focus of our work inside and outside the classroom.

Requirements/Evaluation: formal and informal writing assignments and class participation

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: first-years and sophomores

Expected Class Size: 12

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 235 (D2) PSCI 235 (D2)

Attributes: AMST Critical and Cultural Theory Electives ENVI Humanities, Arts + Social Science Electives PHIL Related Courses PSCI Political Theory Courses

Spring 2022

SEM Section: 01 Cancelled

ENVI 238 (F) Sustainable Economic Growth

Cross-listings: ENVI 238 ECON 238

Secondary Cross-listing

Is it possible to have infinite economic growth on a finite planet? This question has sparked a great deal of inquiry across the social sciences. Some argue that we need to slow or even end economic growth to prevent environmental catastrophe. Others argue that market forces, especially changing prices and improved technology, will ensure that growth can continue unabated without significant negative consequences. Still others argue that government intervention is necessary to limit negative consequences of economic progress, but that effective interventions are still compatible with sustained economic growth. In this class, we will explore the insights that economics has to offer on this important question. We will start by considering the importance of finite inputs used in production, including fossil fuels, minerals, and land, among others. Then, we will consider whether undesirable byproducts of economic growth will prevent sustained growth. This second part of class will place a lot of emphasis on climate change. Throughout the class, we will pay special attention to the role that government intervention can or cannot play in promoting sustainable economic growth. This class will reinforce important concepts taught in introductory microeconomics and introductory macroeconomics.

Class Format: The first half of the class is lecture-based. The second half of the class is discussion-based.

Requirements/Evaluation: midterms exams, final exam, problem sets, short writing assignments, video-taped presentations, class participation

Prerequisites: ECON 110 and ECON 120

Enrollment Limit: 25

Enrollment Preferences: potential or declared social science majors

Expected Class Size: 20

Grading: yes pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 238 (D2) ECON 238 (D2)

Attributes: ENVI Environmental Policy POEC Comparative POEC/Public Policy Courses

Fall 2021

LEC Section: 01 MWF 11:00 am - 12:15 pm Gregory P. Casey

ENVI 240 (F) Conservation and Climate Change (WS)

What does climate change mean for the future of Earth's 8.7 million-or-so species? This tutorial introduces students to an emerging literature on how

climate change alters the distributions, behaviors, and interactions of plant and animal species. In it we will pay close attention to how to read a scientific paper and how to write about science from the discipline of environmental studies. Some of the questions we will consider include: How is scientific knowledge produced? What might the biotic world look like in 10, 100, and 1000 years? How are conservation and restoration practitioners responding to climate change? To what extent can local environmental management alter global trends?

Requirements/Evaluation: one 5- to 7-page essay every other week and carefully prepared oral responses to partners' essays in alternate weeks

Prerequisites: ENVI101 or permission of the instructor

Enrollment Limit: 10

Enrollment Preferences: Environmental Studies majors and concentrators

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: No divisional credit (WS)

Writing Skills Notes: Weekly tutorial paper or response paper for which the instructor will provide feedback on writing skills as well as content. Opportunities to revise.

Attributes: ENVI Humanities, Arts + Social Science Electives ENVI Natural World Electives

Not offered current academic year

ENVI 241 (S) The Politics of Waste

Cross-listings: ENVI 241 PSCI 242 PSCI 270

Secondary Cross-listing

Waste is not just a fact of life, it is a political practice. To create and maintain political order requires devising collective means to pile up, bury, burn, or otherwise dispose of stuff deemed dirty or disorderly: waste management is regime management. In turn, our feelings of disgust for anything deemed waste shape political deliberation and action on environmental policy, immigration, food production, economic distribution, and much more. The very effort to define "waste" raises thorny political questions: What (or who) is disposable? Why do we find the visible presence of certain kinds of things or persons to be unbearably noxious? How should we respond to the fact that these unbearable beings persist in existing, despite our best efforts to eliminate them? What is our individual and collective responsibility for creating and disposing of waste? Serious inquiry into waste is rare in political theory and political science--perhaps understandably, given that the study of politics is shaped by the same taboos that shape politics. In this seminar we will openly discuss unmentionable topics and get our hands dirty (sometimes literally) examining the politics of waste. We will take notice of the erasure of waste in traditional political theory and work together to fill these gaps. To do so, we will draw on work in anthropology, critical theory, history, urban studies, and waste management science; representations of waste in popular culture; and experiences with waste in our lives. This course is part of a joint program between Williams' Center for Learning in Action and the Berkshire County Jail in Pittsfield, MA. The class will be composed equally of nine Williams students and nine inmates and will be held at the jail. An important goal of the course is to encourage students from different backgrounds to think together about issues of common human concern. Transportation will be provided by the college. *Please note the atypical class hours, Wed 4:45-8:30 pm*

Requirements/Evaluation: class attendance and participation, short essays, and a final paper

Prerequisites: not open to first-year students

Enrollment Limit: 9

Enrollment Preferences: final selection will be made on the basis of statements of interest solicited after pre-registration and interviews with the instructor

Expected Class Size: 9

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 241 (D2) PSCI 242 (D2) PSCI 270 (D2)

Attributes: ENVI Environmental Policy PSCI Political Theory Courses

Not offered current academic year

ENVI 242 (S) The Country and the City in the Classical World

Cross-listings: ANTH 242 ENVI 242 CLAS 242

Secondary Cross-listing

A growing urban-rural divide is defining political discourse around the world. The interrelation and tension between "city" and "countryside" are not new, however, but date back to the time when cities first began. How do cities occupy and transform, interact with and displace rural landscapes? What are the values, stereotypes, and ideals--as well as artistic, literary, and architectural forms--associated with the city and the countryside? What role does one play in the political, social, and economic life of the other? With a focus on ancient Greece and, especially, Rome, this course will combine archaeological evidence and contemporary scholarship with primary sources ranging from Hesiod, Theocritus, Vergil, and Propertius to Cato the Elder, Varro, Vitruvius, and Pliny the Elder, to examine an array of topics including land surveying and colonization; agrarian legislation; the urban food supply; rustic religion in the city; urban parks and gardens; and the concept of the pastoral. Together, we will explore the city and the countryside - not just as places, but also as states of mind. All readings are in translation.

Requirements/Evaluation: informed participation, two short papers (2-5 pages), final paper (8-10 pages)

Prerequisites: none, although prior knowledge of the ancient world will be useful

Enrollment Limit: 19

Enrollment Preferences: declared and intending majors in Classics and Environmental Studies

Expected Class Size: 20

Grading: no pass/fail option, yes fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

ANTH 242 (D1) ENVI 242 (D1) CLAS 242 (D1)

Attributes: ENVI Humanities, Arts + Social Science Electives GBST Urbanizing World Electives

Not offered current academic year

ENVI 243 (F) Reimagining Rivers (WS)

Cross-listings: ENVI 243 ANTH 243

Primary Cross-listing

In the era of climate change and widening inequality, how we live with rivers will help define who we are. Rivers are the circulatory systems of civilization, yet for much of modern history they have been treated as little more than sewers, roads, and sources of power. Today they are in crisis. Rivers and the people who rely on them face a multitude of problems, including increased flooding, drought, pollution, and ill-conceived dams. These problems will threaten human rights, public health, political stability, and ecological resilience far into the future unless we learn to manage rivers more justly and sustainably. Can we reimagine rivers before it is too late? This course will pursue this question by examining the social, cultural, and political dimensions of conflict over rivers in the twentieth and twenty-first centuries. Drawing on scholarship from a wide range of social science and humanities disciplines and focusing on case studies in Asia, Africa, Europe, and the Americas, it will explore a diverse array of sources: film, fiction, ethnography, history, journalism, and more.

Class Format: This class will be taught in a modified tutorial format, with five groups of three students, each of which will meet for one 75-minute session per week. Sessions will be held in-person and remotely.

Requirements/Evaluation: Each week, each student will either write a 5-page essay on assigned readings or write a 2-page critique of a partner's paper.

Prerequisites: Environmental Studies 101

Enrollment Limit: 10

Enrollment Preferences: Environmental Studies majors and concentrators

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 243 (D2) ANTH 243 (D2)

Writing Skills Notes: Students take turns writing 5-page essays and 2-page responses to those essays, with each writing 6 in total. For each five-page paper, I meet with the student to discuss technical aspects of the paper and specific ways in which it could be improved. At the end of the

semester, students have the option of handing in one revised paper as part of a portfolio of papers from throughout the semester. This enables me to have an ongoing, in-depth discussion with each student about their writing skills.

Attributes: ENVI Humanities, Arts + Social Science Electives

Fall 2021

TUT Section: T1 TBA Nicolas C. Howe

ENVI 244 (S) Environmental Ethics (WS)

Cross-listings: ENVI 244 PHIL 244

Primary Cross-listing

What ethical standards should guide our individual and societal choices when those choices affect current and future environmental conditions? This course will introduce students to fundamental concepts, methods, and issues in environmental ethics. Initial tutorial meetings will focus on theoretical materials that will background later discussions and will include classic readings from the environmental ethics literature (e.g., Leopold, Taylor, Rolston). Subsequent sessions will pair readings about key concepts with specific cases that raise complex ethical issues, including the concept of moral standing and, e.g., people who do not yet exist, non-human individuals, species, and complex living systems; the concept of moral responsibility and complicity in environmentally damaging practices; the legitimacy of cost-benefit analysis as an environmental policy tool; and the valuation of human lives.

Requirements/Evaluation: five essays (5-7 pages each) and five prepared oral responses to partners' essays; evaluation will be based on essays, oral responses, and quality of discussion

Prerequisites: ENVI 101 or one course in PHIL

Enrollment Limit: 10

Enrollment Preferences: declared and prospective Environmental Studies majors and concentrators

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Unit Notes: meets Value Theory requirement only if registration is under PHIL

Distributions: (D2) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 244 (D2) PHIL 244 (D2)

Writing Skills Notes: Students will write five tutorial papers of 5-7 pages in length, one of which they will revise and submit at the end of the term. In each of the tutorial papers students will describe and evaluate arguments that appear in the assigned readings, and will develop arguments in support of their own ethical positions. Students will receive written and oral feedback, concentrated particularly in the first half of the semester, to improve their ability to present clear and effective written arguments.

Attributes: ENVI Humanities, Arts + Social Science Electives EVST Culture/Humanities PHIL Contemporary Value Theory Courses

Spring 2022

TUT Section: T1 TBA Julie A. Pedroni

ENVI 246 (F) Race, Power, & Food History (DPE)

Cross-listings: HIST 265 ENVI 246 AMST 245

Primary Cross-listing

Have you ever wondered why Spam is so popular in Hawaii and why Thai food is available all across the United States? Are you curious why black-eyed peas and collards are considered "soul food"? In this course, we will answer these questions by digging in to the histories of global environmental transformation through colonialism, slavery, and international migration. We will consider the production and consumption of food as a locus of power over the last 300 years. Beginning with the rise of the Atlantic slave trade and continuing through the 20th century, we trace the global movement of plants, foods, flavors, workers, businesses, and agricultural knowledge. Major units include rice production by enslaved people in the Americas; Asian American food histories during the Cold War; and fat studies critiques of obesity discourse. We will discuss food justice, food sovereignty, and contemporary movements for food sustainability in the context of these histories and our contemporary world. Readings are

interdisciplinary, but our emphasis will be on historical analyses of race, labor, environment, health, and gender.

Requirements/Evaluation: two to three papers on assigned topics (4-6 pages); one longer final paper (8-10 pages); participation in discussion and online activities

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: Environmental Studies majors and concentrators; American Studies majors; Public Health concentrators; history majors

Expected Class Size: 19

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

HIST 265 (D2) ENVI 246 (D2) AMST 245 (D2)

Difference, Power, and Equity Notes: This course considers the production and consumption of food as a locus of power over the last 300 years, and contextualizes current movements for food justice and sovereignty in light of those histories. Students will have opportunities to reflect on questions of power, privilege, and racism in contemporary food movements. Our final unit focuses on challenges to critical food studies from fat liberation and body positivity

Attributes: AMST Comp Studies in Race, Ethnicity, Diaspora ENVI Humanities, Arts + Social Science Electives EVST Culture/Humanities HIST Group F Electives - U.S. + Canada PHLH Nutrition, Food Security+Environmental Health

Fall 2021

SEM Section: 01 TF 1:10 pm - 2:25 pm April Merleaux

SEM Section: 02 TF 2:35 pm - 3:50 pm April Merleaux

ENVI 247 (F) Race, Land and Settler (Racial) Capitalism: Ongoing Topics in (Dis)/(Re)possession

Cross-listings: ENVI 247 AMST 234 AFR 234 HIST 274

Secondary Cross-listing

This sequential course serves as an introduction to ongoing topics in colonialism, racial thinking, African Diaspora studies, Global and Caribbean studies. We will examine how race, gender and class operate under racial capitalism and settler colonialism. The readings in this class will center the works of critical geographers, caribbeanist, scholars of the African Diaspora, among other critical, anti-capitalist or decolonial scholars. Reading in this course will take up the question(s) of land and land-making; race, racialization, and racial thinking; alongside questions of space and place as they all relate to the various processes, projects and methods of (dis)/(re)possession. This course is the first part of a complementary course, which will be offered in the Spring, titled, "Race, Land, Space and (Dis)/(Re)possession: Critical Topics in Environmental Injustice and Subaltern Geographies," which tracks both the "historical breaks" and ongoing processes of (dis)/(re)possession to more contemporary materializations. Weekly in-class discussion will be combined with guest lectures in order to provide the opportunity for exploring how race, space and (dis)(re)possession can be understood geographically, and to also explain how a range of these territorializing processes operate. Sound, music and other audio engagements will also complement discussions in this course. Therefore, the capacity of deep listening, in-and-out of class, is mandatory. Sample topics covered in the course include the following: indigeneity and Blackness; dispossession and accumulation; environmental imperialism, war and colonial resistance. You are strongly encouraged to participate in both courses in this complementary sequence, but are not required to do so.

Requirements/Evaluation: The following requirements serve as the basis for course evaluation: Attendance and Participation 30%; Serve as Discussion Leader Once 20%; Weekly 300-500-word Critical Response Papers 20%; One Final Creative Project, which can take any number of forms, including the conventional research paper (8-12 double-spaced pages plus bibliography). More creative projects might include, a pamphlet or zine, a written play or theatrical performance, or an op-ed. We will discuss further possibilities in class. 30%

Prerequisites: None

Enrollment Limit: 10

Enrollment Preferences: If the course is overenrolled, preference will be given to Africana studies concentrators.

Expected Class Size: 7

Grading: yes pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 247 (D2) AMST 234 (D2) AFR 234 (D2) HIST 274 (D2)

Attributes: HIST Group D Electives - Latin America + Caribbean HIST Group F Electives - U.S. + Canada HIST Group G Electives - Global History
LATS Countries of Origin + Transnationalism Elect

Fall 2021

SEM Section: 01 MR 1:10 pm - 2:25 pm Allison Guess

ENVI 249 (S) Food, Agriculture, and Globalization

This course examines the history and current politics of the international political economy of food with a focus on how agriculture and food provisioning have been transformed through imperialism and globalization. We examine the interactions of corporations, nation-states, multilateral international organizations, non-governmental organizations, and social movements in the formation of a globalized food system. Topics include the historical antecedents of our present system, plantation agriculture, the influences of war and settler colonialism on global food production, Cold War transformations in the international food system, the origins of sustainable development discourse, international anti-hunger programs, fair trade and other labeling schemes, labor migration, the antiglobalization and local food movements, and neoliberalism. We will pay particular attention to theories about how producers and consumers are connected to one other through the political economy of food. The reading assignments are drawn from the fields of environmental, food, and policy history, and we will also read works from political scientists, international relations scholars, geographers, anthropologists, and advocacy organizations.

Requirements/Evaluation: 2 short concept papers (3-4 pages); 1 research paper (10 pages); several short policy exercises

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: Environmental Studies majors and concentrators

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Attributes: ENVI Environmental Policy GBST Economic Development Studies Electives

Not offered current academic year

ENVI 250 (F) Environmental Justice (DPE)

Cross-listings: STS 250 ENVI 250

Primary Cross-listing

How are local and global environmental problems distributed unevenly according to race, gender, and class? What are the historical, social and economic structures that create unequal exposures to environmental risks and benefits? And how does inequity shape the construction and distribution of environmental knowledge? These are some of the questions we will take up in this course, which will be reading and discussion intensive. Through readings, discussions, and case studies, we will explore EJ in both senses. Potential topics include: toxics exposure, food justice, urban planning, e-waste, unnatural hazards, nuclearism in the U.S. West, natural resources and war, and climate refugees. Occasionally, community leaders, organizers, academics, and government officials will join the class to discuss current issues.

Requirements/Evaluation: several short essays, final essay

Prerequisites: ENVI 101 or permission of the instructor

Enrollment Limit: 12

Enrollment Preferences: juniors, seniors

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 250 (D2) ENVI 250 (D2)

Difference, Power, and Equity Notes: This course will explore how unequal power leads to environmental injustice. Specifically, we will analyze how local and global environmental problems are distributed unevenly according to race, gender, and class. This is a service-based learning course, and students will hone skills to address environmental injustices.

Attributes: ENVI Humanities, Arts + Social Science Electives EVST Culture/Humanities EXPE Experiential Education Courses GBST Economic Development Studies Electives JLST Interdepartmental Electives

Fall 2021

SEM Section: 01 W 1:10 pm - 3:50 pm Laura J. Martin

ENVI 251 Science and Militarism in the Modern World (WS)

In 1961, United States President Dwight D. Eisenhower warned of the global dangers of what he called the "military-industrial complex." In this course, we will interrogate the military-scientific complex, or the imbrication of militarism and scientific knowledge. This tutorial takes up a number of environmental themes, including the role of environmental science within military campaigns, conservation and environmental racism, nuclear waste and ecological contamination. Surveying conflicts from World War II through the present-day War on Terror, this course will investigate how environmental scientists, politicians, soldiers, activists, and artists have grappled with the intertwined legacies of science and militarism. Students will engage a range of textual materials including books, films, photographs, and news reports.

Requirements/Evaluation: Course requirements include bi-weekly response papers (5-7 pages) and tutorial discussions.

Prerequisites: None

Enrollment Limit: 10

Enrollment Preferences: ENVI and STS majors and concentrators

Expected Class Size: 10

Grading:

Distributions: (D2) (WS)

Writing Skills Notes: Over the course of the semester, students will write 5 papers (5-7 pages each). They will receive bi-weekly detailed feedback on their writing from the professor and their tutorial partner. This feedback will include advice on strengthening their argumentation and use of textual evidence, as well as grammar and usage suggestions/corrections. Students will be graded on the portfolio of papers, with specific attention to how they have incorporated feedback in each subsequent paper.

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 253 (S) Race, Land, Dis/Re-possession: Critical Topics in Environmental Injustice and Subaltern Geographies

Cross-listings: AFR 235 AMST 235 HIST 275 GBST 235 ENVI 253

Secondary Cross-listing

This course is an introduction to ongoing and contemporary topics in colonialism, racial thinking, African Diaspora and, Global and Caribbean studies, studies of 'the environment,' and dispossession. We will examine how race, gender and class operate under racial capitalism and settler colonialism as ongoing, sometimes continuous and discontinuous processes. The readings will center the works of critical geographers, caribbeanist, scholars of the African Diaspora, and other critical, anti-capitalist or decolonial scholars. Readings, as in AFR 234, will take up the question(s) of land and land-making; race, racialization, and racial thinking; of space and place as they all relate to the various processes, projects and methods of (dis)/(re)possession, both "past" and "contemporary." We will interrogate temporal binaries, settler time, notions of [the] "progress(ives)" and other bifurcated understandings of the world. This course is the second part of a complementary course, titled, "Race, Land and Settler (Racial) Capitalism," which focuses on the historical geography of processes of (dis)/(re)possession from a Black and Indigenous Atlantic perspective. In this iteration, weekly in-class discussion will be combined with guest lectures to provide the opportunity for exploring how race, space and (dis)/(re)possession can be understood geographically, and to explain how a range of these territorializing processes operate. Sound, music and other audio will complement discussions. Therefore, the capacity of deep listening, in-and-out of class, is a grounding. Sample topics covered in the course include: indigeneity and Blackness; (dis)possession and accumulation; plantation geographies and economies; housing and houselessness; the problem of parks and conservation; prisons and carceral geographies; Black geographies; environmental racism and colonial resistance. You are strongly encouraged to participate in both courses in this sequence, but are not required to do so.

Requirements/Evaluation: The following requirements serve as the basis for course evaluation: Attendance and Participation 30%; Serve as

Discussion Leader Once 20%; Weekly 300-500-word Critical Response Papers 20%; One Final Creative Project, which can take any number of forms, including the conventional research paper (8-12 double-spaced pages plus bibliography). More creative projects might include, a pamphlet or zine, a written play or theatrical performance, or an op-ed. We will discuss further possibilities in class. 30%

Prerequisites: None

Enrollment Limit: 10

Enrollment Preferences: If the course is overenrolled, preference will be given to Africana studies concentrators.

Expected Class Size: 7

Grading: yes pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

AFR 235 (D2) AMST 235 (D2) HIST 275 (D2) GBST 235 (D2) ENVI 253 (D2)

Attributes: HIST Group D Electives - Latin America + Caribbean HIST Group F Electives - U.S. + Canada HIST Group G Electives - Global History
LATS Countries of Origin + Transnationalism Elect

Spring 2022

SEM Section: 01 TF 1:10 pm - 2:25 pm Allison Guess

ENVI 255 (F) Environmental Observation

Cross-listings: GEOS 255 ENVI 255

Secondary Cross-listing

To study the environment, we need to observe and measure it. We collect data--numbers that represent system states--and analyze them to create understanding of the world we live in. Advances in technology create more opportunities to discover how the planet works. Through a survey of observational approaches (including weather stations, direct sampling, remote sensing, community-based monitoring, and other techniques), this course will investigate the process of turning a physical property in the environment into a number on a computer and then into meaningful information. We will explore both direct field measurements and remote sensing techniques, diving into how to choose the appropriate sensor for a scientific question, how sensors work, analysis approaches and statistical methods, and how to interpret the resulting data. We will also learn how to mitigate measurement bias through a combination of lab experiments and field work and how to make interpretations of measurements that accurately reflect what is being measured. The course will focus on the near-surface environment, including the atmosphere, water, and biosphere. Students will carry out a research project using observation techniques covered in class to explore a scientific question of interest. This course is in the Oceans and Climate group for the Geosciences major.

Requirements/Evaluation: Weekly labs, four quizzes, and a final project

Prerequisites: at least one prior course in GEOS or ENVI

Enrollment Limit: 20

Enrollment Preferences: sophomores, then GEOS majors

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 255 (D3) ENVI 255 (D3)

Attributes: ENVI Natural World Electives EVST Methods Courses EXPE Experiential Education Courses GEOS Group A Electives - Climate + Oceans

Fall 2021

LEC Section: 01 MWF 10:00 am - 10:50 am Alice C. Bradley

LAB Section: 02 W 1:00 pm - 4:00 pm Alice C. Bradley

LAB Section: 03 R 1:00 pm - 4:00 pm Alice C. Bradley

ENVI 259 (S) New England Environmental History (WS)

Cross-listings: AMST 259 HIST 259 ENVI 259

Primary Cross-listing

Have you ever wondered why there are few old-growth forests in New England? What Williamstown looked like before Williams was founded? How ideas about environmental preservation have changed over time? These are some of the questions we will explore in this course, which introduces students to the discipline of Environmental History through New England examples. During the semester we will: (1) read and discuss scholarship on the environmental history of New England and the world; (2) use case studies and field trips to examine how past environments are represented in museum exhibits, digital projects, and physical landscapes; (3) Develop a research paper based on original archival research

Requirements/Evaluation: several short essays, final project

Prerequisites: ENVI 101 or permission of the instructor

Enrollment Limit: 19

Enrollment Preferences: Environmental Studies concentrators

Expected Class Size: 15

Grading: no pass/fail option, yes fifth course option

Distributions: (D2) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

AMST 259 (D2) HIST 259 (D2) ENVI 259 (D2)

Writing Skills Notes: Six response papers for which the instructor will provide consistent feedback on writing skills as well as content. Sequenced writing workshops that lead toward a final research paper.

Attributes: ENVI Humanities, Arts + Social Science Electives EVST Culture/Humanities EXPE Experiential Education Courses HIST Group F Electives - U.S. + Canada

Not offered current academic year

ENVI 261 (F) Science and Militarism in the Modern World

Cross-listings: STS 261 ENVI 261

Primary Cross-listing

In 1961, United States President Dwight D. Eisenhower warned about the global dangers of what he called the "military-industrial complex." In this course, we will interrogate the military-scientific complex, or the imbrication of militarism and scientific knowledge. Surveying conflicts from World War II through to the present-day War on Terror, this course will consider how empire, networks of expert knowledge, resource extraction, environmental contamination, and land degradation have shaped the modern world. Students will engage a range of textual materials including books, films, photographs, and news reports. Course requirements include weekly writing assignments and participation in small group discussions.

Class Format: This course adopts a tutorial model. Students will be divided into 5 groups of 2. Each week the groups will meet with me. Each pair will include one "presenter," who shares a 4-6 page paper responding to the week's theme, and one "respondent," who will offer a 2-3 page response to the presenter's paper. The roles of presenter and respondent will alternate each week. Each student will produce 5 papers as "presenter" and 5 papers as "respondent."

Requirements/Evaluation: Each student will produce five (4-6 page) papers as "presenter" and five (2-3 page) papers as "respondent." Grades will be issued based on the portfolio of papers and active participation in discussions.

Prerequisites: None

Enrollment Limit: 10

Enrollment Preferences: ENVI and STS majors and concentrators

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

STS 261 (D2) ENVI 261 (D2)

Attributes: ENVI Humanities, Arts + Social Science Electives

Fall 2021

TUT Section: T1 TBA Brittany Meché

ENVI 263 (S) The Global Ocean: An Interdisciplinary Introduction

Cross-listings: MAST 263 ENVI 263

Secondary Cross-listing

Though it covers most of the planet, the ocean's importance to everyday life is easy to overlook. Its roles as a cultural symbol, resource, highway, and climate regulator make it essential to life around the world. This interdisciplinary course, team-taught by the faculty of the Williams-Mystic Program, will examine key issues in each of the world's oceans while introducing students to the ways these issues connect multiple disciplines and transcend physical, political, and imaginary ocean boundaries. By drawing on the expertise of the five professors -- from humanities, social sciences, and sciences -- this course facilitates the critical study of the ocean from an interdisciplinary perspective and helps them consider their own role in the shifting relationship between humanity and the ocean. This seminar-style course will meet twice a week online, with students assessed by their participation, response papers, and final project, while helping them apply interdisciplinary skills to pressing sustainability issues connecting the environment and society.

Class Format: Remote, including Zoom seminar meetings twice a week

Requirements/Evaluation: Five 2-page papers, participation, and a 6-8 page final paper

Prerequisites: none, open to all students

Enrollment Limit: 20

Enrollment Preferences: 1. first years, 2. sophomores, 3. MAST concentrators

Expected Class Size: 15

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

MAST 263 (D2) ENVI 263 (D2)

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 265 (F) Coral Reefs: Ecology, Threats, & Conservation

Cross-listings: ENVI 265 BIOL 165 MAST 265

Secondary Cross-listing

Coral reefs are a fascinating ecosystem found throughout the world's tropical oceans. Corals can thrive in nutrient-poor oceans because of the mutualistic relationship with algal symbionts. And as a foundational species, corals provide a habitat for numerous species, possibly the highest diversity found on the planet. However, these complex and beautiful ecosystems are declining worldwide from a variety of local and global threats. In this course, we will explore coral reef ecology through an in-depth examination of the biotic and abiotic factors contributing to the ecosystem's functioning. We will also investigate the causes and consequences of threats to coral reefs, such as ocean warming, ocean acidification, and resource extraction. Finally, we will identify the many efforts worldwide to conserve coral reefs and promote their resilience. In this seminar course, offered remotely, you will demonstrate your proficiency through knowledge assessments, short writing reflections, a virtual coral fragmentation experiment, and a creative advocacy project. This course aims to deepen your awareness of the complex species interactions on coral reefs and the physical factors affecting coral survival while fostering hope through current conservation efforts.

Class Format: Remote, including Zoom seminar meetings twice a week

Requirements/Evaluation: Four 1-paragraph discussion board post, One 20-question knowledge assessment (quiz), Three 2-page writing reflections, One lab results and discussion write-up 2-3 pages figures included, and a creative (medium is student choice) advocacy project.

Prerequisites: none, open to all students

Enrollment Limit: 20

Enrollment Preferences: 1. First-Year, 2. Sophomores

Expected Class Size: 16

Grading: yes pass/fail option, yes fifth course option

Unit Notes: Does not count for Biology major credit.

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 265 (D3) BIOL 165 (D3) MAST 265 (D2)

Attributes: ENVI Natural World Electives

Not offered current academic year

ENVI 266 (S) Reading Water (WS)

Cross-listings: ENVI 266 MAST 266

Secondary Cross-listing

Water has such profound and far-reaching influence on individuals, societies, and the planet that it simultaneously risks going overlooked and appearing clichéd. Human beings are made of it and need it to live, yet will die if immersed in it. It is venerated by cultures around the world, yet most people either cannot access clean water, or don't know where their clean water is piped in from. It covers the earth's surface, and has shaped it over eons, yet scientists are still not sure how it came to be here in the first place. This wide-ranging influence also presents challenges for traditional academic structures; thinking about water demands crossing times, spaces, and disciplines. This course will explore the wide-ranging and diverse ways water impacts individuals, cultures, and the environments they call home by drawing on a range of content: hydrology, literature, political theory, storytelling, geography, and more. To do this, we will also develop and examine methods of critically reading as "non-experts"--reading scientific articles as rhetorical objects and reading for scientific principles in literature, for instance--to explore what interdisciplinary thinking opens up (and inhibits), and thus how to effectively engage with and create interdisciplinary work. The goal here is not to define water's cultural or scientific importance, or to determine which disciplines "best" combine to explain water, or to come up with humanities-based solutions to "the water crisis." Rather, these texts, and the water that flows through them will help us explore the opportunities and limits of human perceptions of the other-than-human world. It will help us consider the extent to which those perceptions both shape, and are shaped by, a seemingly simple molecule. And it will help us imagine epistemologies and ontologies that account for the ways water simultaneously flows through us, around us, and through the deep geological history of the planet. Course Texts: Tristan Gooley -- *How to Read Water* (selections) Vandana Shiva -- *Water Wars* (selections) Luna Leopold -- *Water, Rivers, and Creeks* (selections) Richard White -- *The Organic Machine* Linda Hogan -- *Solar Storms* Marc Reisner -- *Cadillac Desert* Jesmyn Ward -- *Salvage the Bones* John McPhee -- "Atchafalaya" Emmi Itäranta -- *Memory of Water* Brenda Hillman -- "The Hydrology of California"

Class Format: This class will be remote, meeting synchronously. The class will be primarily discussion-based, and will ask students to lead and structure discussions. Students will have questions, reflections, and insights prepared before class, and use those to drive our in-class activities.

Requirements/Evaluation: 100pg of reading a week, give or take. Approx 20-25 pages of written work throughout the semester.

Prerequisites: None

Enrollment Limit: 20

Enrollment Preferences: Preference to majors, and then to sophomores and juniors, respectively.

Expected Class Size: 20

Grading: yes pass/fail option, no fifth course option

Distributions: (D1) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 266 (D1) MAST 266 (D1)

Writing Skills Notes: Students will write four papers of increasing complexity that will require workshopping and drafts. Each of these papers will receive forward-looking writing feedback from me. The first paper centers on paragraph-level stylistic choices, the second on argument/evidence connections, the third on genre, and the final paper synthesizes these writing skills. In addition, students' final grades will allow for revision of earlier papers to encourage and assess growth of writing skills.

Not offered current academic year

ENVI 268 (S) Debating Ocean Biodiversity at the Intersection of Science and Policy

Cross-listings: ENVI 268 MAST 268

Secondary Cross-listing

Biodiversity in the ocean is facing an onslaught of challenges, both directly and indirectly. It is likely that we are undergoing a sixth mass extinction event, where diversity of life on earth is stunningly at risk. Fortunately, however, we are also finding innovative ways to solve issues and attempt to stave off these dramatic changes to our ecosystems. These solutions potentially have both positive and negative effects. Difficult tradeoffs must be weighed and decisions must be made as people wrestle with known knowns, known unknowns, and unknown unknowns. In this class, we will explore five issues that relate to biodiversity in the ocean. You will have the opportunity to investigate one side of an issue, to collect supporting information, and to advocate for your position all while learning about current biodiversity issues in the ocean. You will be challenged to weigh conflicting evidence to find a positive outcome. Throughout the class you will practice critical thinking, evaluation, and synthesizing skills as you work with multiple viewpoints. Class time will include lecture, in-class group work, and student-led debates of timely, controversial issues. You will be assessed on summaries of information, reflections on topics, and a final project on an issue of your choice relating to ocean biodiversity.

Class Format: Remote, including Zoom seminar meetings twice a week

Requirements/Evaluation: Five 2-page papers, participation, and a 6-8 page final paper

Prerequisites: none, open to all students

Enrollment Limit: 20

Enrollment Preferences: 1. first years, 2. sophomores, 3. MAST concentrators

Expected Class Size: 15

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 268 (D2) MAST 268 (D2)

Attributes: ENVI Humanities, Arts + Social Science Electives MAST Interdepartmental Electives

Not offered current academic year

ENVI 271 (S) Theatre & Environment: Site, Nature, Ecoperformance, Utopia (DPE)

Cross-listings: THEA 272 ENVI 271

Secondary Cross-listing

What is theatre's relation to the environment, whether natural or social? How does the site, place, or ecology of a performance change its meaning and reception? What role can live performance play in grassroots campaigns for climate action or environmental justice? How can we use theatre to, in the words of adrienne maree brown, "practice, in every possible way, the world we want to see?" In this combined seminar/studio course, participants will work collaboratively to create a series of mini-performances based on four categories: site, nature/ecology, ecoperformance, and utopia.

Acknowledging the deep inequities (racial, gendered, ethnic, class-based) that constitute *all* human and environmental interaction, we will work to understand how art's relationship to the environment is itself shaped by the historical legacies of empire and global capitalism. As a contribution to the work of the studio, each student will share independent research on an artist, activist movement, or collective of their choice, such as: Hito Steyerl, Ellie Ga, Marta Rosler, Joan Jonas, Paul Chan, Theaster Gates, Bread and Puppet, Punch Drunk, En Garde Arts, Artichoke Dance, Talking Birds, Extinction Rebellion, Greenpeace, and others. As a special project in the class, we will collaborate with The Zilkha Center to create performances that engage directly with topics relevant to the campus and surrounding community. This is a seminar and maker's course that invites students to create, develop, perform, and share their work with each other and, in some cases, public audiences.

Class Format: This is a maker-based studio and seminar course that requires deep collaboration on the creation, development, and performing of original works of live performance.

Requirements/Evaluation: Creation and presentation of a series of four mini-performance pieces; a 15-minute independent oral presentation on a chosen artist or collective; weekly journal writing; deep and active participation and collaboration.

Prerequisites: none

Enrollment Limit: 14

Enrollment Preferences: if overenrolled, preference will be given to Theatre majors and Environmental Studies majors

Expected Class Size: 10

Grading: yes pass/fail option, yes fifth course option

Distributions: (D1) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

THEA 272 (D1) ENVI 271 (D1)

Difference, Power, and Equity Notes: This course interrogates the deep inequities, injustices (racial, gendered, ethnic, and class-based), and power relations that constitute all of humanity's relation with earth's environment, ecosystem, and ecology. Students will not only study artists and collectives engaged with the work of environmental justice, accountability, and action, they will also make such art themselves.

Attributes: ENVI Humanities, Arts + Social Science Electives

Spring 2022

STU Section: 01 TF 1:10 pm - 2:25 pm Amy S. Holzapfel

ENVI 273 (F) Politics without Humans?

Cross-listings: ENVI 273 STS 273 PSCI 273

Secondary Cross-listing

Are human beings the only beings who belong in politics? And is political involvement a unique or defining aspect of what it means to be human? Such questions are increasingly complex as the boundaries of "the human" become blurred by the rise of artificial intelligence, robotics, and brain implants: shifting attitudes towards both animal and human bodies; and the automation of economic and military decisions (buy! sell! attack! retreat!) that used to be the prerogative of human actors. How do visions of politics without humans and humans without politics impact our thinking about longstanding questions of freedom, power, and right? Can and should the link between humans and politics survive in an age in which "posthuman" or "transhuman" entities become central characters in the drama of politics? This class will consider these questions through readings, films and artifacts that bring political theory into conversation with science fiction, popular literature on the so-called "singularity" (the merger of humans with computers), science and technology studies, evolutionary anthropology, "new materialist" philosophy, and feminist theory.

Requirements/Evaluation: three 5- to 7-page papers, regular Glow posts, class participation

Prerequisites: please note that this is an introductory-level course with no prerequisites; first-year students and those with no background in political theory are welcome, as are more experienced students

Enrollment Limit: 25

Expected Class Size: 20

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 273 (D2) STS 273 (D2) PSCI 273 (D2)

Attributes: AMST Critical and Cultural Theory Electives ENVI Environmental Policy PHIL Related Courses PSCI Political Theory Courses

Not offered current academic year

ENVI 291 (S) Religion and the American Environmental Imagination

Cross-listings: SOC 291 ENVI 291 REL 291

Primary Cross-listing

This course examines the relationship between religious and environmental thought in modern America. Exploring a broad range of practices and beliefs, we will examine the religious (and anti-religious) roots of contemporary environmental discourse. Rather than survey the environmental teachings of organized religious groups, our focus throughout will be on ambiguous, eclectic, and fascinating traditions of "eco-spirituality" and popular "nature religion." Where do these traditions come from? What is their relationship to science, to secularism, to politics, and to the search for environmental justice? Starting with the Transcendentalist movement of the 19th century, we will trace a roughly chronological line to the present, taking long detours into several modern religious trends and movements, including the revitalization and contestation of Native American religions, Wicca and neo-pagan ecofeminism, and evangelical Creation Care. Focusing on the writings of activists and radicals from a variety of religious backgrounds, our overarching question throughout the semester is one of the most critical we face in modern environmental thought: what is the relationship between spirituality and the just, sustainable society?

Requirements/Evaluation: a 15- to 18-page research paper and several shorter writing assignments

Prerequisites: ENVI 101 or permission of instructor

Enrollment Limit: 19

Enrollment Preferences: Environmental Studies majors and concentrators

Expected Class Size: 12

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

SOC 291 (D2) ENVI 291 (D2) REL 291 (D2)

Attributes: AMST Space and Place Electives ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 297 (S) Global Sustainable Development

Cross-listings: GBST 287 ENVI 297

Primary Cross-listing

In 2015, the United Nations launched the Sustainable Development Goals, an ambitious multi-pronged effort to eliminate poverty, improve health outcomes, advance clean energy, address the effects of climate change, and support more equitable forms of life on earth. This course explores the historical antecedents and contemporary manifestations of global sustainable development, a constellation of ideas and a set of policy imperatives. This course will ask: what is sustainability and how did it emerge as a key paradigm in the present? Relatedly, how have different organizations and actors worked to address entrenched global challenges? Students will engage a range of materials, including policy documents from the United Nations, World Bank, and international non-governmental organizations. Students will also explore critical scholarship on the possibilities and limitations of global development. Together we will grapple with ways to build more sustainable futures.

Requirements/Evaluation: Class discussions; Policy Analysis Paper (5-7 pages); Mid-term exam; Final case study/class presentation (8-10 pages)

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: Envi majors and concentrators

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

GBST 287 (D2) ENVI 297 (D2)

Attributes: ENVI Environmental Policy EVST Social Science/Policy

Spring 2022

SEM Section: 01 MR 1:10 pm - 2:25 pm Brittany Meché

ENVI 301 (F) Climate Changes (Latin America): Aesthetics, Politics, Science

Cross-listings: RLSP 401 ENVI 301

Secondary Cross-listing

In her 2007 book, *In Catastrophic Times: Resisting the Coming Barbarism*, philosopher Isabelle Stengers offers a chilling observation: "we are more badly equipped than ever for putting to work the solutions defined as necessary" to avoid the most devastating effects of global warming--the extinction of 25 to 75% of existing species; an increase in sea levels that will drown island nations and coastal cities; the breakdown of agricultural systems, leading to widespread famine; and the recurrence of powerful hurricanes and other so-called "natural" disasters. All of this, as Stengers and others point out, will create human upheaval, conflict and suffering on an unprecedented scale. This senior seminar examines works of literature, art and film that Latin Americans have produced in response to the catastrophic times in which we live. We will discuss the political, economic, and cultural histories that have led to our present moment, including neoliberalism, dictatorship, and the rise and fall of the leftwing Pink Tide. Through works of new and experimental fiction, poetry, film, performance and visual art, we will consider the lives and work of environmental activists, including Berta

Cáceres and others who were murdered because of their outspoken opposition to extractive capitalism, examine the struggle for the decolonization of environmental knowledge, an epistemological battle increasingly waged on behalf of all living things, and experience the politics of mourning for the hundreds of thousands of life-forms disappearing from the planet. Cultural texts to be explored throughout the semester may include: *La vorágine* (José Eustasio Rivera, Colombia, 1924); *Distancia de rescate* (Samanta Schweblin, Argentina, 2014); *Lo que sueño Sebastián* (Rodrigo Rey Rosa, Guatemala, 1995); *Serras da desordem* (Andrea Tonacci, Brazil, 2006); *Boi Neón* (Gabriel Mascaro, Brazil, 2015); *American Fork* (George Handley, USA, 2018).

Requirements/Evaluation: rigorous preparation and participation in class discussions, oral presentations and discussion-leading, response papers, one 5- to 7-page paper and one 15- to 20-page paper

Prerequisites: one 300-level course in the department, evidence of a successful direct-enroll experience at a local university in Latin America or Spain, or permission of instructor

Enrollment Limit: 19

Enrollment Preferences: senior Spanish majors; after that, priority will be given to ENVI majors with a strong command of Spanish

Expected Class Size: 12

Grading: no pass/fail option, no fifth course option

Unit Notes: this is the senior seminar required for all Spanish majors

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

RLSP 401 (D1) ENVI 301 (D1)

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 302 (F) Environmental Planning Workshop: Community-Based Experience

Cross-listings: AMST 302 ENVI 302

Primary Cross-listing

In this interdisciplinary, experiential workshop students effect environmental change through hands-on community projects. Environmental Planning includes a range of disciplines pertaining to the natural and built landscape such as city planning, environmental management, affordable housing, food system planning, climate resiliency planning, habitat restoration, alternative transportation, renewable energy, farmland, open space and recreation, municipal services (recycling, composting, parks, playgrounds, schools etc), ecological site design, green buildings, landscape architecture, neighborhood design, economic development, and community development, to list a few. Each year, the projects focus on the most pressing issues in the region and in the planning field. The class is organized into two parts. Part 1 involves reading and discussion of the planning literature: history, theory, policy, ethics, legal framework, and case studies. Labs include site visits, GIS mapping, hands-on planning exercises and project development. Part 2 involves project work: in small teams, you will work with a community organization or local government on a current project. The includes primary research, conducting interviews with policymakers, stakeholders and residents, site visits, attending meetings, and other activities as demanded by the particular project. The project work draws on students' academic training and extracurricular activities, and applies creative solutions to thorny problems. Labs will be small group work and project work. The course includes several class presentations; students will gain skills in interacting with public officials, interviewing, preparing presentations, public speaking, report-writing, and teamwork. The class culminates in a public presentation.

Requirements/Evaluation: Response papers (about four 1-page papers), planning exercises, class discussion, reports submitted in segments (total about 30 pp), collaborative small group work, class presentations frequently during semester, final public presentation.

Prerequisites: ENVI 101; open to seniors; in certain circumstances open to juniors with permission.

Enrollment Limit: 16

Enrollment Preferences: Environmental Studies majors and concentrators

Expected Class Size: 16

Grading: no pass/fail option, no fifth course option

Unit Notes: Required course for Environmental Studies major and concentration

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

AMST 302 (D2) ENVI 302 (D2)

Attributes: AMST Space and Place Electives ENVI Core Courses EVST Core Courses EXPE Experiential Education Courses

Fall 2021

SEM Section: 01 TR 11:20 am - 12:35 pm Sarah Gardner

LAB Section: 02 T 1:00 pm - 4:00 pm Sarah Gardner

LAB Section: 03 R 1:00 pm - 4:00 pm Sarah Gardner

ENVI 303 (S) Cultures of Climate Change

Cross-listings: SOC 303 ENVI 303

Primary Cross-listing

This course asks why people think and talk about climate change in such very different ways. Climate change is a physical phenomenon that can be observed, quantified, and measured. But it is also an idea, and as such it is subject to the vagaries of cultural interpretation. Despite scientific agreement about its existence and its causes, many people do not see climate change as a serious problem, or as a problem at all. Many others see it as the most serious problem our species has ever faced. What are the sources of this disparity? Why can't we agree about climate change? How does something as complex and confusing as climate change become a "problem" in the first place? This course will explore a broad array of factors, from religion to race, class to colonialism. It will focus especially closely on the communication of scientific knowledge, risk perception, and environmental ethics, and it will apply a range of theories from the social sciences and humanities to a set of concrete case studies.

Requirements/Evaluation: a 15- to 18-page research paper and several shorter writing assignments

Prerequisites: ENVI 101 or permission of instructor

Enrollment Limit: 19

Enrollment Preferences: Environmental Studies majors and concentrators first; Anthropology and Sociology majors second

Expected Class Size: 19

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

SOC 303 (D2) ENVI 303 (D2)

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 304 (F) Sacred Custodians: Environmental Conservation in Africa (DPE)

Cross-listings: AFR 335 ENVI 304 GBST 304 HIST 304

Secondary Cross-listing

In this seminar we will explore environmental conservation in Africa. In particular we will look at African ideas, ethics, and approaches to environmental conservation. Are there African ideas, ethics, and activities that are uniquely conservationist in nature? We will explore well-known African leaders to understand what spurred them to become conservationists, how they interpreted and communicated environmental crises. For example, Wangari Maathai is a world-renowned female scientist who established the Green Belt Movement in Kenya. This movement focuses on addressing the problem of de-forestation. Ken Saro-Wiwa was an activist in Nigeria who fought for and alongside local communities against multinational oil corporations. We will examine these and other African conservation practices alongside popular images of environmental crisis that place blame for environmental degradation on Africans. Students will be invited to critically study histories of environmental management on the continent and the emergence, development, and impact of the idea of conservation. We will unpack the rich histories of conservation efforts in Africa, such as resource extraction, game parks, desertification, wildlife and hunting, traditional practices, and climate change.

Class Format: If there's sufficient enrollment, this course will be taught in 2 sections, 1 in-person section and 1 remote section;

Requirements/Evaluation: Requirements/Evaluation: active participation in discussion, map quiz, reading reflections, critical reflections on films, a case study (5-7 pages), and a take-home final exam.

Prerequisites: None

Enrollment Limit: 15

Enrollment Preferences: If course is over-enrolled, preference to History Majors and students with a demonstrated interest in African studies. If there's sufficient enrollment, this course will be taught in 2 sections, 1 in-person section and 1 remote section.

Expected Class Size: 10-12

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

AFR 335 (D2) ENVI 304 (D2) GBST 304 (D2) HIST 304 (D2)

Difference, Power, and Equity Notes: This course will intensively explore the question of how various global and local actors have defined environmental degradation and promoted approaches to conservation in Africa. It guides students through an examination of the different power dynamics that have shaped environmental conservation thought and practices on the continent. This course, therefore, provides a critical lens through which to examine the inequalities rooted in race, gender, and other forms of difference

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 307 (F) Environmental Law

Cross-listings: PSCI 317 ENVI 307

Primary Cross-listing

We rely on environmental laws to make human communities healthier and protect the natural world, while allowing for sustainable economic growth. Yet, despite 40 years of increasingly varied and complex legislation, balancing human needs and environmental quality has never been harder than it is today. Environmental Studies 307 analyzes the transformation of environmental law from fringe enterprise to fundamental feature of modern political, economic and social life. ENVI 307 also addresses the role of community activism in environmental law, from local battles over proposed industrial facilities to national campaigns for improved corporate citizenship. By the completion of the semester, students will understand both the successes and failures of modern environmental law and how these laws are being reinvented, through innovations like pollution credit trading and "green product" certification, to confront globalization, climate change and other emerging threats.

Requirements/Evaluation: several short writing assignments, a term research project, and active participation in class

Prerequisites: ENVI 101 or permission of instructor

Enrollment Limit: 14

Expected Class Size: 14

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

PSCI 317 (D2) ENVI 307 (D2)

Attributes: AMST Space and Place Electives ENVI Environmental Policy EVST Social Science/Policy JLST Interdepartmental Electives MAST Interdepartmental Electives POEC U.S. Political Economy + Public Policy Course

Fall 2021

LEC Section: 01 M 7:00 pm - 9:40 pm David N. Cassuto

ENVI 308 (S) Science and Politics in Environmental Decision Making

This course explores the relationship between science and politics in environmental decision-making. How do legislators know when a species is endangered and warrants protection? What precautions should be applied in allowing genetically modified foods onto our plates? Can we, and should we, weigh the risks of malaria against the impacts of pesticides used to control those mosquitoes that transmit the disease? How has the global community come together to understand the risks from global climate change, and how has this understanding shaped our policy responses? What are some of the limits of science in shaping policy outcomes? In addressing these and other questions, we will pay particular attention to how power relations and existing institutions shape what knowledge, and whose knowledge, is taken on board in decision-making, be it at the local, national or global level. We will delve into how these dynamics shape policy outcomes and we will also examine novel approaches for incorporating the knowledge of traditionally disempowered groups, including indigenous and local communities.

Requirements/Evaluation: participation, several smaller assignments, and a final project

Prerequisites: ENVI 101 or permission of instructor

Enrollment Limit: 19

Enrollment Preferences: Environmental Studies majors and concentrators, Public Health concentrators, and Political Science majors

Expected Class Size: 15

Grading: yes pass/fail option, yes fifth course option

Distributions: No divisional credit

Attributes: ENVI Environmental Policy PHLH Nutrition,Food Security+Environmental Health

Not offered current academic year

ENVI 311 (S) Tropical Ecologies: Francophone Caribbean Literature and the Environment (DPE)

Cross-listings: AFR 313 RLFR 313 ENVI 311

Secondary Cross-listing

The lushness of the mangroves, the flora and fauna of tropical landscapes, the intricacy of the rhizome, the flow of great rivers, the crashing waves of the Atlantic, the heights of mountainous lands, and expanse of the plateau--the natural world is an important site of Caribbean art in general and, more specifically, the francophone Caribbean novel of the 20th and 21st centuries. Applying eco-criticism to the field of francophone Caribbean literature, the goal of this class is to examine the ways that fiction explores the relationship between human activity and the environment. How does the novel inhabit Caribbean ecologies and topographies? How does it represent nature? In what ways do Caribbean texts meditate on nature and culture together or against one another? As the earthquake in Haiti demonstrated in 2010 with calamitous force, and the cycles of Caribbean hurricanes have shown over the years, natural disaster is also a political crisis. In view of this, we will also consider the legacies of slavery and colonialism in terms of class, gender and race politics. This investigation of the dynamics of natural and cultural phenomena will also have a theoretical frame rooted in critical texts of Caribbean of literary and political movements such as *Indigenisme*, *Négritude*, and *Créolité*. Conducted in French.

Class Format: This will be a remote course available to all students, whether they are on campus or completing coursework 100% remotely. We will convene synchronously via Zoom multiple times per week, with an emphasis on discussion and small group work. Students are also required to attend a monthly colloquium featuring renowned Caribbean scholars and participate in online activities both during and in-between our synchronous sessions.

Requirements/Evaluation: Students will be required to submit four 2-page position papers that incorporate critical readings with analysis of the books being read in their entirety; each student will also be responsible for making a twenty-five minute oral presentation on a critical/theoretical area related to class readings and discussion; the semester will conclude with a 6-8 page research paper to include footnotes and a bibliography. Attendance is mandatory and active, and informed class participation is required of all students. In addition, students are asked to come up with discussion questions three times throughout the semester.

Prerequisites: Successful performance in RLFR 105 or 106; or a previous RLFR 200-level or 300-level course; or by placement test; or permission of the instructor.

Enrollment Limit: 12

Enrollment Preferences: All are welcome, but if over-enrolled, preference will be given to French majors and certificate students; and those with compelling justification for admission.

Expected Class Size: 12

Grading: yes pass/fail option, no fifth course option

Distributions: (D1) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

AFR 313 (D1) RLFR 313 (D1) ENVI 311 (D1)

Difference, Power, and Equity Notes: As the course description show, this course critically examines difference, power, and equity in the Francophone Caribbean. The content focuses on race and ethnicity, slavery and colonialism, ecology and environmental disaster, and their effects on Caribbean histories, peoples, and cultures. The course teaches students how to critically investigate racial, cultural, and environmental in/justice(s), through texts, films, discussion, debate, and writing.

Not offered current academic year

ENVI 312 (F) Communities and Ecosystems (QFR)

Cross-listings: BIOL 302 ENVI 312

Secondary Cross-listing

An advanced ecology course that examines how species interact with each other and their environment and how communities are assembled. This course emphasizes phenomena that emerge in complex ecological systems, building on the fundamental concepts of population biology, community ecology, and ecosystem science. This foundation will be used to understand specific topics relevant to conservation including invasibility and the functional significance of diversity for ecosystem stability and processes. Lectures and labs will explore how to characterize the emergent properties of communities and ecosystems, and how theoretical, comparative, and experimental approaches are used to understand their structure and function. The lab component of this course will emphasize hypothesis-oriented field experiments as well as "big-data" analyses using existing data sets. The laboratory component of the course will culminate with a self-designed independent or group project.

Class Format: six hours per week

Requirements/Evaluation: lab reports, a midterm exam, a term project presentation, and a final project paper

Prerequisites: BIOL/ENVI 203 or 220

Enrollment Limit: 28

Enrollment Preferences: Biology majors and Environmental Studies majors and concentrators

Expected Class Size: 24

Grading: yes pass/fail option, yes fifth course option

Unit Notes: satisfies the distribution requirement for the Biology major

Distributions: (D3) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

BIOL 302 (D3) ENVI 312 (D3)

Attributes: ENVI Natural World Electives EVST Living Systems Courses EXPE Experiential Education Courses

Not offered current academic year

ENVI 314 (F) Nature in Crisis: The Classification Craze and The Rise of Museums

Cross-listings: RLFR 315 ENVI 314

Secondary Cross-listing

This course examines how understandings of nature evolved dramatically (and at times unsettlingly) from the 17th through the early 20th centuries and how this instability prompted a desire to classify and control natural phenomena. To analyze these issues, we will likewise consider the rise of modern museums, as well as the accompanying acts of classification and curation. We will consider how literary and philosophical texts from the aforementioned time periods depict nature, how real-world interactions with nature led to the creation of (illustrated) taxonomies, how colonization inflected notions of the natural world and also museum exhibits, and finally, how the cabinet of curiosities and later, the museum, provided a space in which to display and analyze nature's more unusual treasures. As part of our explorations, we will build a virtual exhibit of our own to reflect our understanding of nature today and our engagement with concepts of nature from previous eras. Conducted in French. Counts as an Envi Humanities Elective for the Envi Concentration.

Class Format: Remote. This will be a remote course available to all students, whether they are on campus or completing coursework 100% remotely. We will convene synchronously via web-conferencing multiple times per week, with an emphasis on discussion in small groups. There will be many opportunities for all course members to interact via a series of varied online activities both during and in-between our synchronous sessions.

Requirements/Evaluation: participation, online homework, essays, mid-semester presentation, final class project (virtual exhibit)

Prerequisites: exceptional performance in RLFR 106, or an RLFR 200-level course; or by placement test; or permission of the instructor

Enrollment Limit: 12

Enrollment Preferences: All are welcome, but if over-enrolled, preference will be given to French majors and certificate students; and those with compelling justification for admission.

Expected Class Size: 12

Grading: yes pass/fail option, yes fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

RLFR 315 (D1) ENVI 314 (D1)

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 315 (S) Ecocriticism

Cross-listings: ENVI 315 ENGL 312

Secondary Cross-listing

How does the human imagination encounter its environment? This overarching question is of particular importance now, as the humanities struggle to address the ecological crises of our time. We'll read selections from the long tradition of environmentally-minded literary works in order to historicize concepts of nature and wilderness, as well as from more recent theoretical and creative writing that reflects an increasing awareness of climate change, toxic waste and pollution, habitat loss and species extinction, population expansion, and other forms of environmental catastrophe. Finally, we will explore via our own writing the ethical and aesthetic imperative to find ways of imagining this ever-changing relation between the imagination and the environment.

Requirements/Evaluation: engaged participation; one 5- to 7-page paper and one final 12- to 15-page paper; frequent GLOW posts; and a creative journal

Prerequisites: a 100-level ENGL course, or a score of 5 on the AP English Literature exam, or a score of 6 or 7 on the Higher Level IB English exam, or consent of the instructor

Enrollment Limit: 25

Enrollment Preferences: majors in English or Environmental Studies

Expected Class Size: 25

Grading: yes pass/fail option, yes fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 315 (D1) ENGL 312 (D1)

Attributes: AMST Space and Place Electives ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 321 (F) Born to be Wild: Rethinking Animals in Pre-modern and Modern Texts (DPE)

Cross-listings: COMP 323 ARAB 323 ENVI 321

Secondary Cross-listing

In the past few months, images of dolphins appearing in the Venetian canals, and wild animals roaming eerie looking post-apocalyptic deserted streets have gone viral. The majority of these images have proven to be fake, however their popularity was witness to people's hope that we can "reset" the environment and a yearning to reframe animals' positionality vis-à-vis their habitats and humans. Using critical lenses from ecocriticism and animal studies, we will be exploring texts from non-Western traditions in which animals figure strongly from pre-modern times to the age of the Anthropocene. The focus will be on Arabic, Persian and Turkish texts all in translation. The course will be traversing several genres and texts from Pre-Islamic poetry, the Quran, the 10th century Ikhwan as-Safa's epistle *The Case of Animals versus Man Before the King of the Jinn*, the fables of *Kalila and Dimna*, Farid ed-Din 'Attar's *Conference of Birds*, travelogues, paintings, contemporary film till we reach recent fiction with cyborgs and drones. Throughout the course, we will be examining themes such as diverse conceptualizations of what it means to be an "animal", what constitutes animal agency and animal subjectivity irrespective of humans and their often utilitarian lens. We will do this by investigating how animals through these texts have been represented, imagined and reconfigured whether allegorically or otherwise as communities and in relation to humans and the environment and the implications of that. Finally, we will explore what a poetics of animal studies in these cultural and literary traditions could look like. The course will consist of multiple forms of evaluation like participation, Glow posts, essays, experiential reflections and creative tasks.

Class Format: This class will be offered remotely synchronously twice a week (75 minutes each session), in addition to prerecorded asynchronous material at times.

Requirements/Evaluation: The course will consist of multiple forms of evaluation like participation, Glow posts, essays, experiential reflections and creative tasks.

Prerequisites: None

Enrollment Limit: 12

Enrollment Preferences: Arabic majors, Comparative Literature Majors, Environmental Studies Majors and Arabic certificate holders.

Expected Class Size: 10

Grading: no pass/fail option, yes fifth course option

Distributions: (D1) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

COMP 323 (D1) ARAB 323 (D1) ENVI 321 (D1)

Difference, Power, and Equity Notes: This course deals with different literary traditions and their aesthetics. The approach is both synchronic and diachronic by looking at texts and their texts from different time periods and at different genres. The course will be examining what it means to be an "animal" vis-a-vis human beings and their environment and animal agency in these literary traditions as opposed to the often utilitarian lens that animals have often been viewed through.

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 322 (F) Waste and Value

Cross-listings: ENVI 322 GBST 322 ANTH 322

Secondary Cross-listing

What is trash and what is treasure? In what ways does value depend upon and necessitate waste, and how is the dialectic between the two inflected by culture? When we 'throw away' things at Williams College, where exactly do they go, and who handles them 'down the line'? What are the local and global economies of waste in which we are all embedded and how are they structured by class, race, caste, gender and nation? In this seminar we critically examine the production of waste - both as material and as category - and its role in the production of value, meaning, hierarchy and the environment. Readings include ethnographic accounts of sanitation labor and social hierarchy; studies of the political and environmental consequences of systems of waste management in the colonial period and the present; and theoretical inquiries into the relation between filth and culture, including work by Mary Douglas, Dipesh Chakrabarty and Karl Marx. Geographically the foci are South Asia, Japan, and the United States. There is also a fieldwork component to the course. In fieldtrips we follow the waste streams flowing out of Williams - to an incinerator, a sewage treatment plant, recycling and composting facilities and other sites - and students explore in individual, participant-observation-based research projects the everyday social life of waste in our communities.

Requirements/Evaluation: regular posting of critical response papers, field notes on waste streams, research-based final paper

Prerequisites: none

Enrollment Limit: 12

Enrollment Preferences: majors in ANSO, ENVI, ASST

Expected Class Size: 12

Grading: yes pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 322 (D2) GBST 322 (D2) ANTH 322 (D2)

Attributes: ENVI Humanities, Arts + Social Science Electives

Fall 2021

SEM Section: 01 W 1:10 pm - 3:50 pm Joel Lee

ENVI 323 (F) World's End: Literary Ecologies of the Limit

Cross-listings: ENVI 323 ENGL 324

Secondary Cross-listing

Consciousness of the world's finiteness in a time of environmental degradation and headlong global capitalism prompts restraint, a harboring of resources. But beyond the economic logic of conservation and expenditure, might imagining the world from the vantage point of its limit provoke a more profound rethinking of ourselves and the things of the world? Does it change what it means to possess, or even what an experience of the world is? Does it change human relationship? This course explores these questions in part by reaching back to the early modern period, when the

boundedness of nations and worlds first comes to view in a meaningful way. But the course will have a long arc, from Shakespeare to Sinha's *Animal's People*. Primary works will include: Shakespeare, *As You Like It* and *King Lear*; Marvell; Ovid, *Metamorphosis*; Browne, *Urn Burial*; Wordsworth; McCarthy, *The Road*; Atwood; Alice Oswald; photography (Struth, Hutte); painting (Titian), and video installations (Pipilotti Rist). Theoretical texts include: Smith, *Against Ecological Sovereignty*; Wood, *Reoccupy Earth*; Agamben, *The Time that Remains*; Heidegger, "Question Concerning Technology"; Latour, "An Inquiry into Modes of Existence"; Nancy, *After Fukushima*; Derrida, *The animal that therefore I am* and *Beast and the Sovereign*.

Class Format: This course will be taught virtually, but we will make absolutely every effort to ensure that it takes the form of a genuine discussion class, including breaking periodically into smaller online groups. Requirements: two papers totaling 20 pages.

Requirements/Evaluation: two papers over the course of the semester totaling approximately 20 pages.

Prerequisites: none

Enrollment Limit: 16

Enrollment Preferences: English majors using the course to fulfill a requirement; Environmental Studies majors

Expected Class Size: 16

Grading: yes pass/fail option, yes fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 323 (D1) ENGL 324 (D1)

Attributes: ENGL Criticism Courses ENGL Literary Histories A ENVI Humanities, Arts + Social Science Electives PHIL Related Courses

Not offered current academic year

ENVI 324 (S) Corals and Sea Level

Cross-listings: GEOS 324 MAST 324 ENVI 324

Secondary Cross-listing

In coastal communities, increasing flood damage from storm surges and chronic inundation by seawater are already happening as a result of sea level rise. How do we know what contributes to the observed change in sea level in the last century? What does the geological record teach us about what controls the natural variation in sea level on short and long timescales? How can we use this information to separate anthropogenic effects from natural change in modern systems? And how does this inform us on what to expect through the 21st century and beyond? In this course, we will examine how sea level is reconstructed using geological archives and how coral-based sea level data led to breakthroughs in our understanding of the long-term evolution of the ocean and climate, the controls in the timing of ice age cycles, the singularity of modern climate change, and how high the future seas will rise. During Spring Break, the class will travel to Barbados, a renowned locality for Quaternary sea level reconstruction, to observe modern and ancient reefs, and collect samples that will be the basis of individual or group projects in the second half of the semester. Participation in the Spring Break trip is not required for successful completion of the course, but course enrollment is necessary to attend the trip. This course is in the Oceans and Climate group for the Geosciences major.

Requirements/Evaluation: short papers, labs, participation in discussion, and a research project

Prerequisites: GEOS 104 or GEOS 210 or GEOS 215 or MAST 311 or permission of instructor

Enrollment Limit: 10

Enrollment Preferences: Geoscience majors, students who commit to the Spring Break trip

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

GEOS 324 (D3) MAST 324 (D3) ENVI 324 (D3)

Attributes: ENVI Natural World Electives EXPE Experiential Education Courses GEOS Group A Electives - Climate + Oceans

Not offered current academic year

ENVI 332 (F) (De)colonial Ecologies (DPE) (WS)

Cross-listings: AFR 347 AMST 332 ENVI 332

Secondary Cross-listing

What is the relationship between race, colonialism, and capitalism? How do such structures organize nature, including human nature? How do ideas of "nature" and "the human" come to structure race, colonialism, and capitalism? From the "discovery" and plunder of the "New World," to 18th-century claims that climate determined racial character, to the 21st-century proliferation of DNA tests underwriting claims to Indigenous ancestry, it is clear that race, colonialism, capitalism constitute asymmetric world ecologies, and give rise to interconnected liberation struggles. Anchored in the contexts of U.S. colonialism and racial capitalism, and drawing on environmentalist, Black Marxist, and feminist works, this course aims to expose students to a world history of colonial and decolonial ecologies. By the end of this course, students should be able to describe the historical foundations of dominant ideas, attitudes, and practices toward human and non-human natures. Students should also be able to analyze how such orientations toward human and non-human natures mediate the ways in which colonial, racial, gender, and sexual categories and structures inform and are (re)produced by U.S. institutions and in public areas such as the law, public policy, and property. Finally, students should be able to interpret how racialized and colonized peoples' visions, representations, and practices of liberation constitute decolonial ecologies that contend with, and exceed normative political, economic, and social categories of governance and systems of dispossession and exploitation.

Requirements/Evaluation: Participation: 25%; Weekly Response (350-500 words): 25%; Final Essay--Research proposal (2-3 pgs.): 10%; Final Essay--Peer review and feedback (2 pgs.): 10%; Final Essay--Presentation: 10%; Final Essay--Paper (15 pgs.): 20%

Prerequisites: AMST 101, AFR 200, and/or ENVI 101

Enrollment Limit: 15

Enrollment Preferences: AMST, AFR, ENVI

Expected Class Size: 15

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2) (DPE) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

AFR 347 (D2) AMST 332 (D2) ENVI 332 (D2)

Writing Skills Notes: One thesis paper at 15 pages. The writing process is staggered, with each part graded, and with critical feedback from professor and peers. Specifically, one research proposal (including thesis outline and annotated bibliography of primary texts) with feedback from professor; one thesis paper draft with feedback from peers; one letter of revision explaining the student's revision process; one final draft with critical feedback from professor; and student presentation and discussion.

Difference, Power, and Equity Notes: The course addresses issues of difference, power, and equity, and offers theoretical tools and perspectives to understand these issues. Specifically, students learn how to interpret how racialized and colonized peoples' visions, representations, and practices of liberation with regard to relations with non-human natures and the materiality of land precede, contend with, and exceed normative political, economic, and social categories of governance and systems of dispossession and exploitation.

Attributes: ENVI Humanities, Arts + Social Science Electives

Fall 2021

SEM Section: 01 TF 2:35 pm - 3:50 pm Hossein Ayazi

ENVI 339 (F) Conservation Biology (QFR)

Cross-listings: ENVI 339 BIOL 329

Secondary Cross-listing

This course examines the application of population genetics, population ecology, community ecology, and systematics to the conservation of biological diversity. The overarching theme of the course is on the role of stochastic processes for small populations. Lecture/discussion topics will include extinction, the genetics of small populations, metapopulations, and importantly, conservation strategies. Labs will include a mixture of computer and lab projects.

Class Format: lecture and discussion, 3 hours per week; lab, 1.25 hours per week. students will be assigned to a lab section (block AA - either W or F from 1:30-2:45) during the first week of class.

Requirements/Evaluation: Evaluation will be based on lab assignments, two exams, discussion participation, and an independent project

Prerequisites: BIOL 203/ENVI 203, or BIOL 305, or permission of instructor

Enrollment Limit: 12

Enrollment Preferences: Biology majors, seniors, and juniors

Expected Class Size: 12

Grading: yes pass/fail option, yes fifth course option

Unit Notes: Satisfies the distribution requirement for the Biology major

Distributions: (D3) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 339 (D3) BIOL 329 (D3)

Quantative/Formal Reasoning Notes: This course uses quantitative and statistical analyses in both the laboratory and lecture portion of the course. In lectures mathematical models will be covered to understand conservation dynamics. In lab, students will collect and analyze data and present results in graphical and statistical forms.

Attributes: ENVI Natural World Electives

Not offered current academic year

ENVI 341 (S) Toxicology and Cancer

Cross-listings: ENVI 341 CHEM 341

Secondary Cross-listing

What is a poison and what makes it poisonous? Paracelsus commented in 1537: "What is not a poison? All things are poisons (and nothing is without poison). The dose alone keeps a thing from being a poison." Is the picture really this bleak; is modern technology-based society truly swimming in a sea of toxic materials? How are the nature and severity of toxicity established, measured and expressed? Do all toxic materials exert their effect in the same manner, or can materials be poisonous in a variety of different ways? Are the safety levels set by regulatory agencies low enough for a range of common toxic materials, such as mercury, lead, and certain pesticides? How are poisons metabolized and how do they lead to the development of cancer? What is cancer and what does it take to cause it? What biochemical defense mechanisms exist to counteract the effects of poisons?

This course attempts to answer these questions by surveying the fundamentals of modern chemical toxicology and the induction and progression of cancer. Topics will range from description and quantitation of the toxic response, including risk assessment, to the basic mechanisms underlying toxicity, mutagenesis, carcinogenesis, and DNA repair.

Class Format: three times per week

Requirements/Evaluation: two hour tests, a class presentation and paper, participation in discussion sessions, a self-exploration of the current toxicological literature, and a final exam

Prerequisites: CHEM 156; may be taken concurrently with CHEM 251/255; a basic understanding of organic chemistry

Enrollment Limit: 30

Expected Class Size: 24

Grading: no pass/fail option, yes fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 341 (D3) CHEM 341 (D3)

Attributes: BIMO Interdepartmental Electives ENVI Natural World Electives PHLH Biomedical Determinants of Health

Not offered current academic year

ENVI 346 (S) Environmental Psychology

Cross-listings: PSYC 346 ENVI 346

Secondary Cross-listing

This is a course in social psychology as it pertains to the natural environment. We will consider how the environment influences aspects of human psychology (e.g., the psychological implications of humans' disconnect with nature), as well as how human psychology influences the environment (e.g., why some people engage in environmentally destructive behaviors despite holding proenvironmental attitudes). At the core of this course is an attempt to examine various ways in which research and theory in social psychology can contribute insights to understanding (and encouraging) environmentally responsible behavior and sustainable practices, both here at Williams and globally. Because human choice and behavior play such an important role in environmental problems, a consideration of human psychology may therefore be an important part of the solution.

Class Format: empirical lab course

Requirements/Evaluation: a series of papers, two essay exams, written and oral reports of research

Prerequisites: PSYC 242 recommended, PSYC 201, or a comparable course in statistics and research methodology, is also recommended.

Enrollment Limit: 16

Enrollment Preferences: Psychology majors, Environmental Studies majors, and Environmental Studies concentrators

Expected Class Size: 16

Grading: yes pass/fail option, yes fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

PSYC 346 (D3) ENVI 346 (D3)

Attributes: AMST Space and Place Electives ENVI Humanities, Arts + Social Science Electives PSYC Area 4 - Social Psychology PSYC Empirical Lab Course

Spring 2022

SEM Section: 01 TR 9:55 am - 11:10 am Kenneth K. Savitsky

LAB Section: 02 M 1:00 pm - 4:00 pm Kenneth K. Savitsky

ENVI 348 (S) Beyond Cli-Fi: Climate Change Histories & the Arts of Resilience (DPE)

Cross-listings: AMST 347 ENVI 348

Primary Cross-listing

This interdisciplinary environmental humanities seminar begins with the premise that our present climate crisis is a political project of globalization propelled by capitalism and its cultural logic. Causes and consequences of climate change can only be understood by examining the historical trajectories of carbon-based economic, political, and cultural systems since the 19th century. We trace the intellectual genealogy of modern climate science, consider the politics of indigenous knowledge as related to extractivism, and examine literary and artistic engagements with the natural world. We pay particular attention to the narrative strategies that scientists and policymakers use to talk about climate, and we develop creative critiques of the dominant discourses. We use historical and cultural analysis to study social movement strategy and tactics among advocates for climate mitigation, adaptation, and resilience. We begin and end with creative responses to climate crisis, always asking: How can we move beyond dystopia and defeatism? How might history inform social movements for climate resilience? How can the arts, theater, and literary production articulate a new politics of survival? What narrative forms enable and inspire climate action?

Requirements/Evaluation: one short creative writing assignment; several short critical papers (3-4 pages); final essay (10-15 pages)

Prerequisites: ENVI 101 or instructor permission

Enrollment Limit: none

Enrollment Preferences: ENVI or AMST majors or concentrators; people with demonstrated interest in the course topics

Expected Class Size: 15

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

AMST 347 (D2) ENVI 348 (D2)

Difference, Power, and Equity Notes: This course considers the historical differences in economic, political, and cultural power which have shaped our present climate crisis. We consider both who drives environmental change and who experiences it first hand. We consider in particular how differences of class, race, and gender shape capacities for resilience and resistance and we examine social movement strategy, with particular attention to Indigenous and POC social movement thinkers and leaders.

Attributes: AMST Critical and Cultural Theory Electives ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 349 (S) Race, Development, and Food Sovereignty (DPE) (WS)**Cross-listings:** ENVI 349 AFR 349 AMST 342**Secondary Cross-listing**

What does it mean to "settle" land? What racial encounters and acts of survival took place around the plantation? How have farmworkers and landowners faced off against government policies and "agribusiness" corporations? What was the "Green Revolution" and why did it happen? Agriculture as a relation to land based on domestication, enclosure, and commerce has long been a means of and justification for racial and colonial dispossession and exploitation across the Americas, including what is now the United States. At the same time, an array of embodied practices in relation to the land and one another complicate and contest these histories of racial and colonial dispossession. Broadly, this course aims to familiarize students with the historical and present-day entwining of colonial and racial dispossession, exploitation, and resistance at the heart of U.S. economies of agriculture. By the end of this course, students should be able to analyze how the historical foundations of U.S. agriculture have entailed and intertwined the taking of lands and removal of Indigenous peoples, the enslavement of African peoples, mass migration, and various forms of exploitative labor. Students should also be able to assess how these historical foundations continued to serve as the material conditions reproduced throughout the course of the 19th and 20th centuries under discriminatory government policies and powerful "agribusiness" corporations, as well as the possibilities and limits of redress and reform through state and corporate action. Finally, students should be able to interpret how embodied practices in relation to the land and one another precede, exceed, and push against the logics and histories of racial and colonial dispossession. The course is organized around three units that interrogate economies of agriculture within and beyond the U.S. nation-state. Each unit interrogates a key period of time from the founding of the United States, through 20th-century Pax Americana, and on into the present. Finally, each unit does so while attending to the emergence and enactment of "food sovereignty" movements--efforts to foster a new international trade regime, agrarian reform, a shift to agroecological production practices, attention to gender relations and equity, and the protection of intellectual and indigenous property rights.

Requirements/Evaluation: Participation: 25%; Weekly Response (350-500 words): 25%; Final Essay--Research proposal (2-3 pgs.): 10%; Final Essay--Peer review and feedback (2 pgs.): 10%; Final Essay--Presentation: 10%; Final Essay--Paper (15 pgs.): 20%**Prerequisites:** AMST 101, AFR 200, and/or ENVI 101**Enrollment Limit:** 15**Enrollment Preferences:** AMST, AFR, ENVI**Expected Class Size:** 15**Grading:** yes pass/fail option, yes fifth course option**Distributions:** (D2) (DPE) (WS)**This course is cross-listed and the prefixes carry the following divisional credit:**

ENVI 349 (D2) AFR 349 (D2) AMST 342 (D2)

Writing Skills Notes: One thesis paper at 15 pages. The writing process is staggered, with each part graded, and with critical feedback from professor and peers. Specifically, one research proposal (including thesis outline and annotated bibliography of primary texts) with feedback from professor; one thesis paper draft with feedback from peers; one letter of revision explaining the student's revision process; one final draft with critical feedback from professor; and student presentation and discussion.**Difference, Power, and Equity Notes:** The course addresses issues of difference, power, and equity, and offers theoretical tools and perspectives to understand these issues. Specifically, students learn how to interpret how racialized and colonized peoples' visions, representations, and practices of liberation with regard to relations with non-human natures and the materiality of land precede, contend with, and exceed normative political, economic, and social categories of governance and systems of dispossession and exploitation.

Spring 2022

SEM Section: 01 Cancelled

ENVI 351 (F)(S) Marine Policy (DPE) (WS)**Cross-listings:** MAST 351 ENVI 351 PSCI 319**Secondary Cross-listing**

Coastal communities are home to nearly 40% of the U.S. population, but occupy only a small percentage of our country's total land area. Intense population density, critical transportation infrastructure, significant economic productivity, and rich cultural and historic value mark our coastal regions as nationally significant. But, coastal and ocean-based climate-induced impacts such as sea level rise, ocean warming and acidification pose extraordinary challenges to our coastal communities, and are not borne equally by all communities. This seminar considers our relationship with our

ocean and coastal environments and the foundational role our oceans and coasts play in our Nation's environmental and economic sustainability as well as ocean and coastal climate resiliency. Through the lens of coastal and ocean governance and policy-making, we critically examine conflict of use issues relative to climate change, climate justice, coastal zone management, fisheries, ocean and coastal pollution and marine biodiversity.

Class Format: This class is taught only at Williams-Mystic in Mystic, Connecticut and includes coastal and near-shore interdisciplinary field seminars, and 10 days offshore.

Requirements/Evaluation: Weekly Readings; Class Participation; Small and large group strategy exercises (written and oral); Written Research Project: issues paper and draft research paper; Final Research Project: multiple formats available

Prerequisites: none

Enrollment Limit: 23

Enrollment Preferences: must be enrolled at Williams-Mystic in Mystic, Connecticut

Expected Class Size: 22

Grading: no pass/fail option, no fifth course option

Unit Notes: must be enrolled at Williams-Mystic in Mystic, Connecticut

Distributions: (D2) (DPE) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

MAST 351 (D2) ENVI 351 (D2) PSCI 319 (D2)

Writing Skills Notes: Each student will write one 3-5 page research issues paper and one 8-10 page draft research paper as well as a final project with written components equaling 5-8 pages. Each submission receives written feedback from the professor, including research guidance, input on grammar, structure, language, analysis. Students also receive verbal feedback in individual conferences to discuss research paper organization, analysis, structure and grammar as well as final project input.

Difference, Power, and Equity Notes: Coastal and ocean policy issues relating to climate change, coastal zone management, fisheries, ocean pollution and marine biodiversity impact environmental and climate justice. Students examine coastal governance while considering the disproportionate burdens on underrepresented populations in U.S. coastal communities caused by climate change and coastal policies. Students analyze multi-disciplinary evidence and work to strengthen their integrative, analytical, writing, and advocacy skills.

Attributes: ENVI Environmental Policy EXPE Experiential Education Courses POEC Comparative POEC/Public Policy Courses

Fall 2021

SEM Section: 01 F 9:00 am - 12:00 pm Catherine Robinson Hall

Spring 2022

SEM Section: 01 F 9:00 am - 12:00 pm Catherine Robinson Hall

ENVI 352 (S) After Nature: Writing About Science and The Environment

Cross-listings: ENGL 351 ENVI 352

Primary Cross-listing

Over the last few decades, the nature of nature has changed and so, by necessity, has nature writing. In this course we will read some of the classic works of nature writing as well as essays and articles by contemporary authors. The emphasis will be on producing our own work. The class will include workshop sessions and group discussions. There will be frequent short exercises and a long final project.

Prerequisites: ENVI 101 or 102 suggested

Enrollment Limit: 15

Enrollment Preferences: Environmental Studies majors

Expected Class Size: 15

Grading: no pass/fail option, no fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

ENGL 351 (D1) ENVI 352 (D1)

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 354 (F) Drugs, Empire, & Environment in Historical Perspective

This course considers the political economy & environmental impacts of licit & illicit drugs. We begin with the premise that drugs are commodities that gained global significance in the context of liberalism & empire. Imperial nations--notably Britain--consolidated political & economic power in the 19th century by promoting the opium trade against the wishes of Chinese & Indian officials. Most illicit drugs originated as plants--cannabis, poppies, & coca. The production of these internationally traded agricultural commodities helped transform rural livelihoods & landscapes in the 19th century; attempts at suppressing drug crops in the 20th century have also had environmental impacts. After the turn of the 20th century, the United States led an international movement to end the opium trade. Since then, the War on Drugs has expanded as a means for the United States to exercise domestic & global power. Our focus is primarily illicit drugs, but historical shifts in the categories of licit/illicit are a key theme. Other themes include race & racism in drug policy, imperialism, agriculture, & debates over toxicity. The course is divided into four units, stretching from the 19th century through the present. First, we discuss British colonialism in India & China through the lens of the opium trade. Next, we study the emerging drug control regime, focusing on coca, cocaine, & Indigenous producers in the Andes in the 1940s & 1950s. The third unit looks at environmental justice activists who oppose pharmaceutical companies' waste disposal in Puerto Rico. Finally, we evaluate the environmental impacts of the recent cannabis boom. We ask whether the legal architecture on which the industry is built can overcome the colonial & racist legacies of drug control. Readings include works by historians, novelists, anthropologists, & public policy experts.

Requirements/Evaluation: 2-3 short papers on assigned topics, final research paper, class discussion and participation

Prerequisites: ENVI 101 or instructor permission

Enrollment Limit: 19

Enrollment Preferences: environmental studies majors and concentrators; juniors and seniors

Expected Class Size: 19

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Attributes: ENVI Humanities, Arts + Social Science Electives

Fall 2021

SEM Section: 01 Cancelled

ENVI 359 (S) Writing Animals

Cross-listings: ENGL 359 ENVI 359

Secondary Cross-listing

Animals surround us, inhabit us. We rely on them for food, for clothing, for friendship, and for ideas. We could say that the whole human enterprise rests on the shoulders of animals, except that we ourselves are, of course, animals, too. In this course, we will explore the rich and rapidly growing body of work that centers on the creatures we live among. Among the questions we will consider are: How do we imagine minds unlike our own? Can we speak for creatures that lack language (or at least our form of it)? How do we explain our love of animals -- and our crimes against them? Readings will include fiction (Kafka's "A Report to an Academy"), non-fiction (Sy Montgomery's *The Soul of an Octopus*), natural history (Helen Macdonald's *Vesper Flights*) and philosophy (Peter Singer's *Animal Liberation*). This course will emphasize student writing, and participants will be invited to experiment with different genres.

Requirements/Evaluation: Students will produce roughly twenty pages of writing in a variety of modes

Prerequisites: none

Enrollment Limit: 16

Enrollment Preferences: English majors

Expected Class Size: 16

Grading: no pass/fail option, no fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

ENGL 359 (D1) ENVI 359 (D1)

Spring 2022

SEM Section: 01 TF 1:10 pm - 2:25 pm John E. Kleiner

ENVI 364 (S) Instrumental Methods of Analysis

Cross-listings: ENVI 364 CHEM 364

Secondary Cross-listing

Instrumental methods of analysis provide scientists with different lenses to observe and elucidate fundamental chemical phenomena and to measure parameters and properties at the atomic, molecular, and bulk scales. This course introduces a framework for learning about a variety of instrumental techniques that typically include chromatography, mass spectrometry, thermal methods, atomic and molecular absorption and emission spectroscopy, X-ray diffraction, and optical and electron microscopies. Students complete two 5-6 week long laboratory projects and gain hands-on experience and project planning skills to study molecules and materials of interest. This practical experience is complemented by lectures that cover the theory and broader applications of these techniques. Students also explore the primary literature and highlight recent advances in instrumental methods that address today's analytical questions. The skills learned are useful in a wide variety of scientific areas and will prepare you well for research endeavors.

Class Format: lecture, two times per week and laboratory, four hours per week; periodic small group meetings to plan laboratory research projects

Requirements/Evaluation: Weekly data analysis and project planning assignments for laboratory and analysis of readings for class, problem sets, two project reports and presentations, one oral presentation of an application of instrumental methods, a final independent literature project and presentation; demonstrated progress in research skills, and project engagement.

Prerequisites: CHEM 155 or 256 and 251/255; may be taken concurrently with CHEM 256 with permission of instructor

Enrollment Limit: 8/lab

Enrollment Preferences: Chemistry and Environmental Studies majors

Expected Class Size: 16

Grading: no pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 364 (D3) CHEM 364 (D3)

Attributes: BIMO Interdepartmental Electives ENVI Natural World Electives EVST Methods Courses MTSC Courses

Spring 2022

LEC Section: 01 TR 9:55 am - 11:10 am Christopher Goh

LAB Section: 02 M 1:00 pm - 5:00 pm Christopher Goh

LAB Section: 03 T 1:00 pm - 5:00 pm Christopher Goh

ENVI 368 (F) Technology and Modern Society

Cross-listings: ENVI 368 SOC 368

Secondary Cross-listing

With widespread use of new social media, controversial developments in such bio-technical practices as the cloning of mammals, rapid advances in various forms of telecommunication, and the increasing sophistication of technological weaponry in the military, the triumph of technology remains a defining feature of modern life. For the most part, modern humans remain unflinchingly confident in the possibilities technology holds for continuing to improve the human condition. Indisputably, technology has benefited human life in innumerable ways. However, as with other features of modernity, technology has also had significant, albeit largely unanticipated, social consequences. Working within a sociological paradigm, this course will focus on the less often examined latent functions of technology in modern society. It will consider, for example, the social effects of technology on community life, on privacy, and on how people learn, think, understand the world, communicate, and organize themselves. The course will also examine the effects of technology on medicine, education, criminal law, and agriculture and will consider such counter-cultural reactions to technology as the Luddite movement in early nineteenth century England, Amish agrarian practices, and the CSA (community supported agriculture) movement.

Requirements/Evaluation: two short papers, a midterm exam, and a final exam

Prerequisites: none

Enrollment Limit: 20

Enrollment Preferences: Anthropology and Sociology majors

Expected Class Size: 20

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 368 (D2) SOC 368 (D2)

Attributes: ENVI Humanities, Arts + Social Science Electives FMST Related Courses

Not offered current academic year

ENVI 373 (F) Environmental Organic Chemistry

Cross-listings: CHEM 373 ENVI 373

Secondary Cross-listing

This course introduces students to the methods used to assess the risks posed by organic chemicals to human, animal, and ecosystem health. Our goal is to develop a quantitative understanding for how specific features of organic molecular structure directly dictate a given molecule's environmental fate. We will begin by using thermodynamic principles to estimate the salient physiochemical properties of molecules (e.g., vapor pressure, solubility, charging behavior, etc.) that impact the distribution, or partitioning, of organic chemicals between air, water, soils, and biota. Then, using quantitative structure activity relationships, we will predict the degradation kinetics resulting from natural nucleophilic, photochemical, and biological processes that determine chemical lifetime in the environment.

Class Format: Lecture/discussion; lecture, three hours per week and discussion, 75 minutes per week.

Requirements/Evaluation: weekly problem sets, two midterm exams, a final exam, participation in discussion, an independent research proposal

Prerequisites: CHEM 251 and either CHEM 155 or CHEM 256. ENVI 102 is strongly recommended.

Enrollment Limit: 15

Enrollment Preferences: junior and senior Chemistry and Environmental Studies majors with a demonstrated interest in environmental chemistry

Expected Class Size: 15

Grading: no pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

CHEM 373 (D3) ENVI 373 (D3)

Attributes: ENVI Natural World Electives EVST Environmental Science

Not offered current academic year

ENVI 376 (F) Economics of Environmental Behavior (QFR)

Cross-listings: ECON 477 ENVI 376

Secondary Cross-listing

A community maintains a fishery; a firm decides whether to get a green certification; you choose to fly home or stay here for spring break: behaviors of people and firms determine our impact on the environment. We'll use economics to model environmental behavior and to consider how policies can help or hurt the environment. Topics we'll study include: voluntary conservation, social norms and nudges, firm responses to mandatory and voluntary rules, and boycotts and divestment.

Class Format: Class sessions will largely consist of presentations and discussions of academic research papers, as well as lab sessions to work on empirical exercises; we may break the class into groups for some discussions

Requirements/Evaluation: regular reading responses, empirical exercises, class participation, 2 oral presentations, and a final original research paper using an experiment, existing data, or theory

Prerequisites: ECON 251 and (ECON 255 or STAT 346)

Enrollment Limit: 15

Enrollment Preferences: senior Economics majors

Expected Class Size: 15

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 477 (D2) ENVI 376 (D2)

Quantative/Formal Reasoning Notes: The research students will consume and produce in the class will be based on math-based theory and/or econometric-based empirical analysis.

Attributes: ENVI Humanities, Arts + Social Science Electives MAST Interdepartmental Electives POEC Comparative POEC/Public Policy Courses

Not offered current academic year

ENVI 378 (S) Nature/Writing

Cross-listings: ENGL 378 ENVI 378

Secondary Cross-listing

What do we mean by "nature"? How do we understand the relationships between "nature" and "culture"? In this course we will examine how various American writers have attempted to render conceptions of "nature" in literary form. We will compare treatments of various kinds of natural environments and trace the philosophical and stylistic traditions within the nature writing genre. The authors to be considered include Ralph Waldo Emerson, Henry David Thoreau, William Faulkner, Annie Dillard, Barry Lopez, Ursula LeGuin, and Wendell Berry.

Class Format: discussion

Requirements/Evaluation: two 10-page papers, regular class attendance, and participation in discussions

Prerequisites: a 100-level ENGL course, or a score of 5 on the AP English Literature exam, or a score of 6 or 7 on the Higher Level IB English exam

Enrollment Limit: 25

Enrollment Preferences: English majors and Environmental Studies concentrators

Expected Class Size: 20

Grading: yes pass/fail option, yes fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

ENGL 378 (D1) ENVI 378 (D1)

Attributes: AMST Space and Place Electives ENVI Humanities, Arts + Social Science Electives

Spring 2022

SEM Section: 01 TR 11:20 am - 12:35 pm David L. Smith

ENVI 387 (F) Economics of Climate Change (QFR)

Cross-listings: ECON 522 ENVI 387 ECON 387

Secondary Cross-listing

This course introduces the economic view of climate change, including both theory and empirical evidence. Given the substantial changes implied by the current stock of greenhouse gases (GHGs) in the atmosphere, we will begin by looking at impacts on agriculture, health, income, and migration. We will consider the distribution of climate damages across poor and wealthy people, both within and across countries. Next we will study adaptation, including capital investments and behavioral changes. We will examine the sources of climate change, especially electricity generation and transportation, and think about optimal policies. Throughout the course we will discuss the limits of the economic approach, pointing out normative questions on which economic theory provides little guidance.

Requirements/Evaluation: problem sets, midterm, group presentation, final exam

Prerequisites: ECON 251, familiarity with statistics

Enrollment Limit: 30

Enrollment Preferences: Junior/Senior Economics majors and CDE fellows

Expected Class Size: 30

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 522 (D2) ENVI 387 (D2) ECON 387 (D2)

Quantative/Formal Reasoning Notes: The course involves simple calculus-based theory and applied statistics.

Attributes: ENVI Environmental Policy MAST Interdepartmental Electives POEC Comparative POEC/Public Policy Courses

Fall 2021

LEC Section: 01 TF 1:10 pm - 2:25 pm Matthew Gibson

ENVI 390 (S) The Nature of Nature

Cross-listings: ENVI 390 ENGL 394

Secondary Cross-listing

"Nature" is one of the commonest words in English. And yet what does it signify? Is it primarily descriptive (all living things), or normative ("natural" foods, "human nature")? This course will consider the richly incoherent ways we think about the living world, paying attention to the difficulty of narrating processes that are often too big, too small, too quick or too slow for direct human apprehension. We'll also explore the ways popular nature writing mingles scientific reporting with implicit judgments about human identity, morality, and social organization. Writers studied will include Elizabeth Kolbert, N. Scott Momaday and Charles Darwin. We'll also consider the technological mediations of nature in documentaries by David Attenborough and Lynette Wallworth, among others.

Requirements/Evaluation: Several short written exercises, an eight page comparative midterm essay, and a final twelve to fifteen page online essay incorporating audiovisual materials. Active participation in class. Note that this course will be offered exclusively online.

Prerequisites: a 100-level ENGL course, or a score of 5 on the AP English Literature exam, or a score of 6 or 7 on the Higher Level IB English exam

Enrollment Limit: 16

Enrollment Preferences: English majors; Environmental Studies majors and concentrators.

Expected Class Size: 16

Grading: no pass/fail option, no fifth course option

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 390 (D1) ENGL 394 (D1)

Attributes: ENGL Literary Histories C ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 397 (F) Independent Study of Environmental Problems

Individuals or groups of students may undertake a study of a particular environmental problem. The project may involve either pure or applied research, policy analysis, laboratory or field studies, or may be a creative writing or photography project dealing with the environment. A variety of nearby sites are available for the study of natural systems. Ongoing projects in the College-owned Hopkins Forest include ecological studies, animal behavior, and acid rain effects on soils, plants, and animals. Students may also choose to work on local, national, or international policy or planning issues, and opportunities to work with town and regional planning officials are available. Projects are unrestricted as to disciplinary focus. Students should consult with faculty well before the start of the semester in which they plan to carry out their project.

Prerequisites: approval by the Chair of Environmental Studies

Grading: yes pass/fail option, yes fifth course option

Distributions: No divisional credit

Fall 2021

IND Section: 01 TBA Nicolas C. Howe

ENVI 398 (S) Independent Study of Environmental Problems

Individuals or groups of students may undertake a study of a particular environmental problem. The project may involve either pure or applied research, policy analysis, laboratory or field studies, or may be a creative writing or photography project dealing with the environment. A variety of nearby sites are available for the study of natural systems. Ongoing projects in the College-owned Hopkins Forest include ecological studies, animal behavior, and acid rain effects on soils, plants, and animals. Students may also choose to work on local, national, or international policy or planning issues, and opportunities to work with town and regional planning officials are available. Projects are unrestricted as to disciplinary focus. Students should consult with faculty well before the start of the semester in which they plan to carry out their project.

Prerequisites: approval by the Chair of Environmental Studies

Grading: yes pass/fail option, yes fifth course option

Distributions: No divisional credit

Spring 2022

IND Section: 01 TBA Nicolas C. Howe

ENVI 404 (F) Coastal Processes and Geomorphology (QFR)

Cross-listings: ENVI 404 MAST 404 GEOS 404

Secondary Cross-listing

Can people live safely along the coast? Recent events like SuperStorm Sandy and the Tohoku Tsunami have shown us how the ocean can rise up suddenly and wreak havoc on our lives and coastal infrastructure. Only educated geoscientists can evaluate the risks and define informed strategies to prevent future coastal catastrophes. Currently almost half the global population lives within 100 km of the coast, with a large percent of those living in densely populated cities (e.g., New York, New Orleans, Los Angeles, Shanghai, Hong Kong, Cape Town, Sydney, Mumbai). Despite the growing risks and challenges associated with climate change and rising sea levels, the coastal population continues to grow rapidly. To help ensure these growing populations can live safely along the coast requires a detailed understanding of the processes that shape the coastal zone. These processes act across a variety of scales, from deep-time geologic processes that dictate coastal shape and structure, to decadal-scale processes that determine shoreline position and evolution, to weekly and daily processes such as storms and tides. This course will provide an in-depth look at the forces--wind, waves, storms, and people--that shape the coastal zone, as well as the geologic formations--sandy beaches, rocky cliffs, barrier islands, deltas, and coral reefs--that are acted upon and resist these forces. Coastal dynamics are strongly affected by human interventions, such as seawalls, dredged channels, and sand dune removal, as well as by sea level rise and changes in storm frequency and magnitude associated with climate change. Finally, the course will provide students with a perspective on how the U.S. seeks to manage its coastal zone, focusing on sea level rise and coastal development. This class will include a quantitative lab that will use MATLAB software to model and evaluate various coastal processes. Students will gain a basic understanding of MATLAB functionality, and will be asked to independently apply what they have learned to various data sets provided by the instructor.

Class Format: lecture two times a week with a lab one time per week

Requirements/Evaluation: lab reports, tests, and an independent research project

Prerequisites: Either GEOS 104 or GEOS 210; or permission of instructor

Enrollment Limit: 12

Enrollment Preferences: senior Geosciences majors, then juniors

Expected Class Size: 10

Grading: yes pass/fail option, yes fifth course option

Unit Notes: As a 400-level seminar, this capstone course is intended to build on and extend knowledge and skills students have developed during previous courses in the major

Distributions: (D3) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 404 (D3) MAST 404 (D3) GEOS 404 (D3)

Quantative/Formal Reasoning Notes: This course will involve the use of MATLAB software to quantitatively analyze coastal process and geomorphological data.

Attributes: ENVI Natural World Electives

Fall 2021

LEC Section: 01 MW 8:30 am - 9:45 am Alex A. Apotsos

LAB Section: 02 F 8:30 am - 9:45 am Alex A. Apotsos

ENVI 405 (F) Geochemistry: Understanding Earth's Environment

Cross-listings: ENVI 405 GEOS 405

Secondary Cross-listing

Rocks, water, air, life: what comprises these interconnected components of the Earth system? How do they interact today, and how did these interactions differ in the past? In this course we will study how chemical elements are distributed in the Earth, cycle through the Earth system, and act together to produce a planet that is habitable. As Earth's landscapes and oceans, and the life they harbor, have evolved through time, they have left an imprint in the geological record that we can read using geochemical tools such as molecular fossils, elemental ratios, and stable and radioactive isotopes. Topics include the synthesis of elements in stars, the formation and differentiation of planet Earth; radiometric dating; the major constituents of the atmosphere, rain, rocks, rivers and the ocean; how they're linked by chemical weathering and biological activity; and reconstruction of past environments. Students will explore these topics through lecture; reading and discussing articles from the scientific literature; and collecting, analyzing and interpreting data from environmental samples.

Requirements/Evaluation: seminar discussions, two 10-page lab reports, lab activities, and final project

Prerequisites: two 200-level GEOS courses and at least one of GEOS 302 or 303

Enrollment Limit: 10

Enrollment Preferences: senior Geosciences majors, then juniors

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Unit Notes: As a 400-level seminar, this capstone course is intended to build on and extend knowledge and skills students have developed during previous courses in the major

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 405 (D3) GEOS 405 (D3)

Attributes: ENVI Natural World Electives

Not offered current academic year

ENVI 410 (S) The Cryosphere

Cross-listings: ENVI 410 GEOS 410

Secondary Cross-listing

The Earth's climate system is often described in terms of its spheres, including the atmosphere, biosphere, lithosphere, oceans, and the cryosphere. The cryosphere is the naturally occurring ice on Earth in all its many forms: snow, glaciers, ice sheets, sea ice, frozen lakes and rivers, and permafrost (frozen soil). These parts of the climate system may seem remote, but have implications for climate and weather around the world. Melting glaciers and ice sheets have already contributed to sea level rise, and are projected to do so even more in the future. This course will explore the cryosphere, including snow, sea ice, permafrost, and glaciers through lectures, hands-on and data analysis labs, reading journal articles, and a final project. A spring break field trip to Alaska offers the opportunity to get boots-on-the-snow experience with glaciers, sea ice, and permafrost. As a 400-level seminar, this capstone course is intended to build on and extend knowledge and skills students have developed during previous courses in the major.

Class Format: Class periods and lab periods will be used interchangeably based on the weather. The spring break trip to Alaska is optional.

Requirements/Evaluation: Evaluation will be based on short papers, labs responses, and a research project

Prerequisites: GEOS 215 or GEOS 255 or GEOS 309 or MAST 311 or permission of instructor

Enrollment Limit: 10

Enrollment Preferences: Senior GEOS majors, then other GEOS majors and senior ENVI majors

Expected Class Size: 10

Grading: yes pass/fail option, yes fifth course option

Unit Notes: As a 400-level seminar, this capstone course is intended to build on and extend knowledge and skills students have developed during previous courses in the major

Materials/Lab Fee: Labs will be outside during the winter: students should be prepared to dress appropriately for the weather.

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 410 (D3) GEOS 410 (D3)

Attributes: ENVI Natural World Electives

Spring 2022

SEM Section: 01 WF 8:30 am - 9:45 am Alice C. Bradley

LAB Section: 02 M 8:30 am - 9:45 am Alice C. Bradley

ENVI 412 (S) Senior Seminar: Perspectives on Environmental Studies (WS)

Cross-listings: MAST 402 ENVI 412

Primary Cross-listing

The Environmental Studies and Maritime Studies programs provide students with an opportunity to explore the myriad ways that humans interact with diverse environments at scales ranging from local to global. The capstone course for Environmental Studies and Maritime Studies, this seminar brings together students who have specialized in the humanities, social studies and the sciences to exchange ideas across these disciplines. Over the course of the seminar, students will develop a sustained independent research project on a topic of their choice, and they will have opportunities throughout the semester to meet with guest speakers to discuss environmental work outside the academy.

Requirements/Evaluation: active participation, discussion leading, several smaller assignments and multi-step capstone project

Prerequisites: declared major/concentration in Environmental Studies or Maritime Studies, ideally to be taken in final semester at Williams

Enrollment Limit: 14

Enrollment Preferences: Environmental Studies majors and concentrators, Maritime Studies concentrators

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Unit Notes: required course for students wishing to complete the Maritime Studies concentration

Distributions: No divisional credit (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

MAST 402 No divisional credit ENVI 412 No divisional credit

Writing Skills Notes: This course is focused on building up cross-disciplinary writing and communication skills. There will be a multi-step capstone project that emphasizes writing, and there will be opportunities to revise and resubmit work.

Attributes: ENVI Core Courses EVST Core Courses EVST Senior Practicum

Not offered current academic year

ENVI 420 (F) Architecture and Sustainability in a Global World (WS)

Cross-listings: ARTH 420 GBST 420 ENVI 420

Secondary Cross-listing

What does it mean to create a sustainable built environment? What do such environments look like? Do they look the same for different people across different times and spaces? This course takes these questions as starting points in exploring the concept of architectural sustainability, defined as "minimizing the negative impact of built form on the surrounding landscape," and how this concept can be interpreted not only from an environmental point of view, but from cultural, political, and social perspectives as well. Over the course of the class, students will explore different conceptualizations of sustainability and how these conceptualizations take form in built environments in response to the cultural identities, political agendas, social norms, gender roles, and religious values circulating in society at any given moment. In recognizing the relationship between the way things are constructed (technique of assembly, technology, materials, process) and the deeper meanings behind the structural languages deployed, students will come to understand sustainability as a fundamentally context-specific ideal, and its manifestation within the architectural environment as a mode of producing

dialogues about the anticipated futures of both cultural and architectural worlds.

Class Format: This course will be taught in a hybrid mode, with both online (lecture) and in-person (discussion) elements.

Requirements/Evaluation: weekly reading discussion question posts on GLOW, leading class discussions, and a final project/paper (15-20 pages) with presentation

Prerequisites: none, although a course in art/architectural history or environmental studies would be advantageous

Enrollment Limit: 12

Enrollment Preferences: Art History majors, Environmental Studies majors, History and Studio majors

Expected Class Size: 12

Grading: no pass/fail option, no fifth course option

Distributions: (D1) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

ARTH 420 (D1) GBST 420 (D2) ENVI 420 (D1)

Writing Skills Notes: This course develops writing proficiency using a series of sequenced assignments that culminate with the formation of a well-articulated, compelling final project. Students will receive extensive feedback on these assignments via a progression-oriented evaluative system that involves both instructor and peer feedback, and will take part in a writing seminar towards gaining the necessary tools for drafting work, formulating ideas, organizing sections, and crafting an abstract.

Attributes: ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 421 (S) Latinx Ecologies

Cross-listings: LATS 420 ENVI 421

Secondary Cross-listing

An August 2015 Latino Decisions poll found that Latinxs, more than other ethnic groups in the U.S.A., are deeply concerned about climate change and the "environment". How and why might some Latinxs be disproportionately impacted by climate change? How have a few distinct Latinx theorists and activists imagined and constructed ecology? How are struggles for environmental justice related to broader Latinx concerns with and constructions of place? This seminar will examine a few moments in distinct Latinx histories and geographies such as California migrant farmworkers and the struggle over pesticides, urban movements over waste management such as the Young Lords' garbage offensive, food justice movements and urban gardening, as well as literary and theological representations of affective and sacred ecologies such as Helena María Viramontes' *Their Dogs Came With Them* and Ecuadoran-U.S. ecofeminist Jeanette Rodríguez's theological texts. Evaluation will be based on class participation, presentations, annotated bibliography, short writing assignments, writing workshop participation, and a final 20-page research paper.

Requirements/Evaluation: class participation, presentations, annotated bibliography, short writing assignments, writing workshop participation, and a final 20-page research paper

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: Latinx Studies concentrators; Environmental Studies majors and concentrators

Expected Class Size: 10

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

LATS 420 (D2) ENVI 421 (D2)

Attributes: LATS 400-level Seminars

Not offered current academic year

ENVI 423 (F) Global Change Ecology

Cross-listings: ENVI 423 BIOL 413

Secondary Cross-listing

Plants and animals are increasingly faced with rapid environmental change driven by human activities across the globe. How do they cope with challenges imposed by climate change, altered nutrient cycling, biological invasions, and increased urbanization? What are the impacts of organismal responses at the population and community level? This course uses an integrative approach to understand the impacts of global change at multiple levels of biological organization in both aquatic and terrestrial environments. We examine how global-scale environmental changes affect the distribution and abundance of species and alter community organization. We also consider the physiological and behavioural mechanisms underlying species responses and the role of acclimation versus adaptation in coping with rapid environmental change. Finally, we learn the analytical tools used to predict future responses to global change. Class discussions will focus on readings drawn from the primary literature.

Class Format: two 75-minute discussion sessions each week

Requirements/Evaluation: class participation and several short papers

Prerequisites: BIOL 203 or BIOL 305, or permission of instructor

Enrollment Limit: 12

Enrollment Preferences: senior Biology majors who have not yet taken a 400-level course

Expected Class Size: 12

Grading: no pass/fail option, no fifth course option

Unit Notes: satisfies the distribution requirement for the Biology major

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 423 (D3) BIOL 413 (D3)

Attributes: ENVI Natural World Electives

Not offered current academic year

ENVI 430 (S) Race, Identity, Nature (DPE) (WS)

Cross-listings: ENVI 430 AFR 390 AMST 430

Secondary Cross-listing

From 18th-century claims that climate determined character to the 21st-century proliferation of DNA tests underwriting claims to Indigenous ancestry, race, colonialism, identity, and "nature" operate as interconnected terrains of power. Anchored in the contexts of U.S. colonialisms, racialization, and accumulation, this course aims to expose students to the cultural politics of "nature" as a way of "doing" American Studies. Specifically, this course investigates formations of and struggles against U.S. colonialisms, racialization, and accumulation via the many symbolic and material iterations, negotiations, and contestations of the contingent relations between and among human and non-human natures. Organized around a significant research paper and weekly written responses, this course ultimately aims to foster students' critical writing, reading, analytical thinking, and comparative inquiry skills across such contexts and sites of contestation, and across texts of different genres and media. We will work with a wide range of primary sources, including published fiction and poetry, legal documents, newspaper articles, speeches, recorded songs, and films, photos, paintings and other visual culture. By the end of this course, students should be able to describe the historical foundations of dominant ideas, attitudes, and practices toward non-human natures, as well as analyze how ideas of "nature" mediate the ways in which colonial, racial, gender, and sexual categories and structures inform and are (re)produced by U.S. institutions and in public areas such as the law, public policy, and property. Finally, students should be able to interpret how racialized and colonized peoples' visions, representations, and practices of liberation with regard to relations with non-human natures and the materiality of land precede, contend with, and exceed normative political, economic, and social categories of governance and systems of dispossession and exploitation.

Class Format: This course is designated as remote. However, international students who want to take this course but need it to be designated as a hybrid course in order to do so may instead register for an independent study with Prof. Ayazi. As a hybrid course, this independent study will have the same requirements as the listed course, with the exception of a limited number of face-to-face meetings in Williamstown or Boston. Please contact Prof. Ayazi at ha5@williams.edu to discuss such an arrangement.

Requirements/Evaluation: Evaluation will be based upon the following: Class Participation: 25%; Weekly Responses (350-500 words): 25%; Final Research Essay: 50%, broken down by Research Proposal (2-3 pgs, 10%), Peer Review and Feedback (2 pgs, 10%), Presentation (10%); Essay (15 pgs): 20%. Class will meet twice per week. Tu. meetings will be synchronous and Th. meetings will be asynchronous. Asynchronous components of the course include pre-recorded lectures, discussion boards, and other exercises that promote as much connection as possible within the constraints of remote education. Toward this end, synchronous meetings will center engaged discussion.

Prerequisites: none

Enrollment Limit: 12

Enrollment Preferences: American Studies majors will be given preference; secondary preference given to students specializing in Native American and Indigenous Studies, as well as Africana and Environmental Studies majors.

Expected Class Size: 12

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2) (DPE) (WS)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 430 (D2) AFR 390 (D2) AMST 430 (D2)

Writing Skills Notes: Emphasis on revision and writing process includes: One thesis paper at 15 pages (receiving critical feedback from professor and peers); one thesis paper revision with critical feedback from professor and peers, including one letter of revision explaining the student's revision process; one research proposal (including thesis outline and annotated bibliography of primary texts) with critical feedback from professor; student presentations and roundtable discussion based on the final paper.

Difference, Power, and Equity Notes: By the end of this course, students should be able to interpret how racialized and colonized peoples' visions, representations, and practices of liberation with regard to relations with non-human natures and the materiality of land precede, contend with, and exceed normative political, economic, and social categories of governance and systems of dispossession and exploitation. In order to address such issues of difference, power, and equity, this course provides students with the necessary th

Attributes: AMST 400-level Senior Seminars ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 436 (S) Demigods: Nature, social theory, and visual imagination in art and literature, ancient to modern

Cross-listings: ENVI 436 ARTH 436 CLAS 436

Secondary Cross-listing

Horse-men, cat-women, goat-men, tree-women, man-bulls, fish-girls, snake-people--cross-species compound creatures are everywhere in ancient Greek and Roman art, poetry, and culture. The conceptual or cognitive value of those "demigods" has changed over time. In art, demigods have frequently been reduced to the status of decoration, and in literature, they have become generic markers of fantasy. But they are hardly without meaning. Embodied in satyrs, centaurs, nymphs, and other demigods is a vision of an alternative evolutionary and cultural history. In it, humans and animals live together. The distinction between nature and culture is not meaningful. Male and female are equal. The industrial revolution never happens. This course traces the history of demigods from its origins in ancient Greek art and poetry until today. We pay special attention to three points: the relationship between mythology of demigods and ancient political theory about primitive life; evolving conceptions of nature, the origin of species, and the environment; and the capacity of the visual arts to create mythology that has a limited literary counterpart. The first half of the course examines the origins and character of the demigods, in works of ancient art, e.g. the François vase and the Parthenon, as well as ancient texts, including Hesiod's Theogony and Ovid's Metamorphoses. We examine relevant cultural practices, intellectual history, and conceptions of nature, in texts such as Euripides' Bakchai, Plato's Phaidros, and Lucretius' De rerum natura. We will consider in detail ancient theories of the origins of species as well as the relationship between nature and human culture. The second half of the course investigates the post-classical survival of demigods. We consider the "rediscovery" of demigods in the work of Renaissance artists such as Botticelli, Michelangelo, Dürer, and Titian, and the rediscovery of ancient materialist theories of nature and culture. We consider in detail the important role played by demigods in the formation of Modernism in art and literature. Key texts include Schiller, "Naive and sentimental poetry," Nietzsche, Birth of Tragedy, Mallarmé, "L'Après midi d'une faun," Aby Warburg's cultural-historical texts, and Stoppard's Arcadia. Problems include the relationship between nymphs and prostitutes in Manet, and the meaning of fauns and the Minotaur in Picasso. We conclude with demigods in popular culture such as the Narnia chronicles or Hunger Games.

Class Format: Lecture and discussion. When possible, we will meet outdoors in person; when that is not possible, we will meet online.

Requirements/Evaluation: The requirements of the course include: attendance and participation in discussion; preparing summaries/analyses of reading assignments for discussions; one presentation on a research project, and one 20-page paper on the research project.

Prerequisites: none

Enrollment Limit: 15

Enrollment Preferences: art history majors, graduate students in art history, classics majors, then any interested student

Expected Class Size: 10

Grading: yes pass/fail option, no fifth course option

Unit Notes: This course will satisfy the seminar requirement in art history.

Distributions: (D1)

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 436 (D1) ARTH 436 (D1) CLAS 436 (D1)

Attributes: ARTH pre-1800 Courses ENVI Humanities, Arts + Social Science Electives

Not offered current academic year

ENVI 450 (F) Senior Seminar: Environmental Ethnography

A key question orients this course: What can the embodied, place-based, and detailed approach of ethnographic study bring to our understandings of the environment? This upper-level seminar will explore this question through classroom discussions and a semester-length research project. Students will engage different styles of environmental ethnography while undertaking their own ethnographic projects involving the Williams College community and surrounding areas. Students will learn to work across different kinds of evidence as they draft fieldnotes, code fieldwork data, extrapolate key ideas from their fieldwork materials, and discover new ways of building environmental knowledge. Students will use these materials to collectively assemble an edited volume of ethnographic snapshots to be presented to the wider Environmental Studies community at Williams.

Requirements/Evaluation: Participation in seminar discussions; Weekly fieldnotes (2-3 pages per week); Mid-term Coded fieldwork notes and summary statements (8-10 pages); Final ethnographic snapshot/presentation (13-15 pages)

Prerequisites: none

Enrollment Limit: 19

Enrollment Preferences: Environmental Studies majors and concentrators; Juniors and Seniors

Expected Class Size: 12

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Attributes: ENVI Environmental Policy EVST Senior Practicum

Fall 2021

SEM Section: 01 W 7:00 pm - 9:40 pm Brittany Meché

ENVI 454 (F) Climate Change Physiology

Cross-listings: BIOL 454 ENVI 454

Secondary Cross-listing

Animals are increasingly faced with rapid climate change driven by human activities across the globe. How do they cope with challenges imposed by increasing temperature? And, how might physiological mechanisms at the organismal level scale up to influence population processes? This course uses an integrative approach to understand the impacts of climate change at multiple levels of biological organization in both terrestrial and aquatic environments. We examine physiological mechanisms underlying animal responses and the role of acclimation versus adaptation in coping with rapidly shifting thermal environments. We then consider the impacts of these mechanisms on whole organism performance and their consequences for population persistence. Finally, we learn the analytical tools used to incorporate physiological mechanisms into ecological models to predict future responses to global climate change. Class discussions will focus on readings drawn from the primary literature.

Class Format: Synchronous discussions with in-person and remote option. Satisfies the distribution requirement for the Biology major.

Requirements/Evaluation: Evaluation will be based on class participation and several short papers.

Prerequisites: BIOL 203 or BIOL 205, or permission of instructor

Enrollment Limit: 10

Enrollment Preferences: Biology seniors who have not yet taken a 400 level course

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D3)

This course is cross-listed and the prefixes carry the following divisional credit:

BIOL 454 (D3) ENVI 454 (D3)

Attributes: ENVI Natural World Electives

Not offered current academic year

ENVI 460 (S) Communicating Climate Change

This course is about environmental communication. No matter what your interests or career paths might be, you will need to be able to communicate effectively about environmental problems, often with people who either don't care about them or who see them very differently from you. It is difficult to communicate about any problem across social, political, and cultural divides. But environmental problems present special challenges. For one thing, they typically involve complicated, contested science. For another, their effects are often difficult to perceive yet potentially devastating in their consequences, especially for future generations and marginalized people. For yet another, their solutions often seem hopelessly difficult to implement. And finally, they are thoroughly entangled with almost every other problem we face, from pandemics to racism. How do we communicate clearly, persuasively, and responsibly about something so complex? This seminar brings together students who have specialized in the humanities, arts, social sciences and sciences to seek answers to this fundamental question. We will focus on perhaps the greatest communication challenge of them all: climate change. Over the course of the seminar, we will explore research on climate change communication in a diverse array of fields while seeking to put our findings into practice locally. To help us learn new ways to communicate, we will meet with some successful, innovative environmental professionals in diverse fields. We will work together as a team to solve concrete communication problems here in our community.

Requirements/Evaluation: One 5-7-page paper; final collaborative project; participation.

Prerequisites: Environmental Studies 101.

Enrollment Limit: 19

Enrollment Preferences: Environmental/Maritime Studies majors and concentrators.

Expected Class Size: 12

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

Attributes: ENVI Core Courses EVST Core Courses MAST Interdepartmental Electives

Spring 2022

SEM Section: 01 W 1:10 pm - 3:50 pm Nicolas C. Howe

ENVI 478 (S) Cold War Landscapes

Cross-listings: AMST 478 ENVI 478 HIST 478

Secondary Cross-listing

The Cold War between the United States and the Soviet Union set in motion dramatic changes to the natural and built environments of many nations between 1945 and 1991. Nuclear test and missile launch sites, naval installations, military production operations, and border securitizations are just a few of the most obvious ways in which the stand-off between the two countries altered rural and urban landscapes around the world. But one can also see the Cold War as setting in motion less immediately direct but nonetheless profound changes to the way that many people saw and planned for the environments around them, as evidenced, for instance, by the rise of the American suburb, the reconstruction of postwar Europe, and agricultural and industrial initiatives in nations across the globe. We will begin this seminar by exploring several distinct "Cold War landscapes" in the United States and North America. We will then move on to examining others in Europe and the Soviet Union. Our approach to our topics will be interdisciplinary throughout the semester, with the additional goal of helping students frame their final projects. Students are encouraged to write their research papers on any geographical area of the world that interests them.

Requirements/Evaluation: class participation and semi-weekly critical writing on the reading; students will also be expected to keep up through the stages of the research paper process, which will involve submitting a short research plan, annotated bibliography, outline, and a rough draft, as well as the final 20- to 25-page paper.

Prerequisites: none

Enrollment Limit: 15

Enrollment Preferences: History, ENVI, and AMST majors if over-enrolled

Expected Class Size: 10

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

AMST 478 (D2) ENVI 478 (D2) HIST 478 (D2)

Attributes: AMST Space and Place Electives ENVI Humanities, Arts + Social Science Electives HIST Group C Electives - Europe and Russia HIST Group F Electives - U.S. + Canada

Spring 2022

SEM Section: 01 TF 2:35 pm - 3:50 pm Karen R. Merrill

ENVI 491 (F) The Suburbs

Cross-listings: AMST 490 ENVI 491 HIST 491

Secondary Cross-listing

The suburbs transformed the United States. At the broadest level, they profoundly altered spatial residential geography (especially in terms of race), consumer expectations and behavior, governmental policies, cultural norms and assumptions, societal connections, and Americans' relationship to nature. More specifically, the different waves of post-World War II suburban development have both reflected large-scale shifts in how power and money have operated in the American political economy; and set in motion deep-seated changes in electoral politics, in Americans' understandings of how their income should be used, and in how the built landscape should be re-imagined. This tutorial will explore the rich historical literature that has emerged over the last twenty years to provide students with a history of the suburbs, to see the suburbs as more than simply collections of houses that drew individual homeowners who wanted to leave urban areas. We will focus most of our attention on the period from 1945 through the 1980s. Some of the questions we will consider will include: how did the first wave of suburban development bring together postwar racial and Cold War ideologies? Is it possible, as one historian has argued, that suburbs actually created the environmental movement of the 1960s? And how have historians understood the role that suburbs played in America's conservative political turn, leading to the election of Ronald Reagan?

Class Format: Remote for fall 2020. As in a regular semester, I'll work with enrolled students to set up a schedule for our tutorial meetings, which will occur online. At a couple junctures during the semester, we will also try to meet online as a whole class, as well as have a few small group discussions.

Requirements/Evaluation: typical tutorial format; every other week, students will write and present orally a 5- to 7-page essay on the assigned readings; on alternate weeks, students will write a 2-page critique. During two of the weeks of the semester (around the middle of the semester and at the end), all students will write papers that explore a common question or theme.

Prerequisites: none

Enrollment Limit: 10

Enrollment Preferences: History majors and students with previous coursework in History

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

AMST 490 (D2) ENVI 491 (D2) HIST 491 (D2)

Attributes: AMST Space and Place Electives ENVI Humanities, Arts + Social Science Electives HIST Group F Electives - U.S. + Canada

Not offered current academic year

ENVI 493 (F) Senior Research and Thesis: Environmental Studies

Environmental Studies senior research and thesis; this is part of a full-year thesis (493-494).

Prerequisites: approval by the Chair of Environmental Studies

Grading: yes pass/fail option, yes fifth course option

Distributions: No divisional credit

Fall 2021

HON Section: 01 TBA Nicolas C. Howe

ENVI 494 (S) Senior Research and Thesis: Environmental Studies

Environmental Studies senior research and thesis; this is part of a full-year thesis (493-494).

Prerequisites: approval by the Chair of Environmental Studies

Grading: yes pass/fail option, yes fifth course option

Distributions: No divisional credit

Spring 2022

HON Section: 01 TBA Nicolas C. Howe

Winter Study -----

ENVI 10 (W) The Mohawk Trail: History Here and Everywhere

Cross-listings: HIST 10 AMST 10 ENVI 10

Secondary Cross-listing

History is everywhere, all around you, no matter where you are. That's because history happens in place, and in specific places. Some places are spoken of as particularly "historical" but every place has its stories. This Winter Study course will use the case study of the Mohawk Trail road and region to explore the ways that history happens in place. Students will learn how to see the past all around them and apply these skills to a particular place of their choosing, whether along the Mohawk Trail, in or around the local Williamstown area, their hometown, or any other place they know well. We will meet twice a week for four hours where we'll discuss readings, visit places along the Mohawk Trail, and practice the various skills of reading the landscape to better understand the past. Throughout the course students will analyze and conduct research on their particular place, present their preliminary findings to the class, and either write a traditional final research paper or produce a creative project. During the regular semester it might seem that the past is preserved in written documents and conveyed in books. That's true but there are all sorts of ways that we can see the past in place outside the classroom. This is what we'll explore together in this course.

Requirements/Evaluation: research a particular place & present findings to the class; option to write a final research paper or to produce a creative project based on their analysis & research

Prerequisites: none

Enrollment Limit: 11

Enrollment Preferences: student questionnaire

Grading: pass/fail only

Unit Notes: Chris Slaby is currently a Ph.D. candidate in the American Studies Program at the College of William & Mary, where he is writing a dissertation on the history of the Mohawk Trail and Mohican Homelands. His scholarship exists at the intersection of Native American and Indigenous Studies and the environmental humanities.

Materials/Lab Fee: none

This course is cross-listed and the prefixes carry the following divisional credit:

HIST 10 AMST 10 ENVI 10

Winter 2022

LEC Section: 01 Cancelled

ENVI 16 (W) New England--The Wild Side!

In this course we will explore, first hand, the New England landscape to make some sense of its amazing physical and biological diversity. From the spruce-clad Berkshires to the broad Connecticut River Valley to wind-swept Cape Cod, we will delve into various landscapes and decipher the primary forces and features that make them distinct--their bedrock and climate, glacial history, flora and fauna and even paleontology. We'll learn the typical trees and shrubs of the region and what their presence suggests about the nature and history of the places they grow. We will make forays into the world of winter-hardy wildlife--including chickadees, waterfowl, rabbits, weasels, beavers and coyotes. What do their tracks and behavior reveal about

how they cope in their rigorous and fickle environments, and how might they be affected by climate change and other human impacts? Through hikes, field trips, visits to museums, readings, discussions, and personal observations, you will increase your awareness and appreciation of the natural heritage of the region that you have made your recent home. This class is field focused; therefore students should be prepared to spend significant time outdoors, sometimes hiking several miles, in winter conditions. Some trips will require students to be away from campus beyond normal class hours and even overnight. No special equipment or prerequisites are required for this class.

Requirements/Evaluation: the final project could comprise a 6-page paper, journal, creative endeavor (sketches, poetry, etc), field study, or related work, plus a short presentation

Prerequisites: none

Enrollment Limit: 10

Enrollment Preferences: seniority, demonstrated interest and curiosity in the subject

Grading: pass/fail only

Unit Notes: Drew Jones has been manager of Williams College's Hopkins Memorial Forest for 21 years. There he coordinates research, education and maintenance activities. In addition, he bands saw-whet owls in the fall and boils maple sap in the spring. Previously, Drew has worked as a wildlife biologist and environmental educator from the southern Appalachians to the north woods and beyond.

Materials/Lab Fee: \$273

Winter 2022

LEC Section: 01 MWF 10:00 am - 12:50 pm Andrew T. Jones

ENVI 20 (W) Winter Naturalist's Journal

Cross-listings: ENVI 20 ENGL 20

Primary Cross-listing

This course will engage with the natural world through writing, drawing, and personal observation. Students will spend time out-of-doors exploring the ecosystem of the Williamstown area, and indoors practicing reflective writing (both poetry and prose) as well as observational drawing. Everyone will be required to keep a nature journal, which will be shared and displayed as part of the final project. This course is designed for students who are interested in environmental studies, creative writing, and drawing. The instructor will meet with the students for 6 hours of in-class time, and will provide assignments totaling at least 15 hours a week, including daily visits to a chosen spot on campus for writing and observation. Students will be provided with a binder of articles and poems, which they will be expected to read and comment on. There will be at least one field trip. The class will conclude with a celebratory reading/showing of student work. Students will be required to keep a daily journal, and also to write in class. They will be asked to perfect and edit several of these pieces in place of a ten-page paper, and to read one or more of them at the final celebration.

Requirements/Evaluation: final project or presentation, daily journal and several 2 to 3 page papers

Prerequisites: none

Enrollment Limit: 12

Enrollment Preferences: random selection

Grading: pass/fail only

Unit Notes: Christian McEwen is author of "World Enough & Time: On Creativity and Slowing Down" and the editor of "Jo's Girls; Tomboy Tales of High Adventure; The Alphabet of the Tress: A Guide to Nature Writing" as well as several other books. She is currently working on a book called "In Praise of Listening". Guest lecturer Barbara Bash is an artist and calligrapher who has published several books, including True Nature: An Illustrated Journal of Four Seasons in Solitude.

Materials/Lab Fee: \$32

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 20 ENGL 20

Attributes: EXPE Experiential Education Courses

Winter 2022

LEC Section: 01 MW 10:00 am - 12:50 pm Christian McEwen

LEC Section: 02 MW 1:30 pm - 4:20 pm Christian McEwen

ENVI 25 (W) Tropical Marine Conservation

Cross-listings: ENVI 25 BIOL 25

Secondary Cross-listing

Tropical marine ecosystems such as coral reefs and mangrove forests are biodiversity 'hotspots'; they are home to an astounding variety of marine organisms, provide critical support for the livelihoods and food sources of millions of people, but are also highly vulnerable to human impacts such as climate change and overfishing. This winter study travel course will offer a unique combination of classroom, laboratory, and hands-on experiences in the scientific study, management, and restoration of tropical marine ecosystems using the Bahamian island of Eleuthera as a case study. Eleuthera is rich in marine diversity but still in the process of implementing management policies and practices for its many fisheries. As such, it presents a unique opportunity for students to experience conservation-in-action. Students will gain an understanding of the structure, function, and major threats facing tropical marine ecosystems. They will develop practical skills in conducting field surveys of tropical marine species and in implementing management and restoration strategies on the Island. They will also engage with the local community to understand the social and economic impacts of marine conservation policy and to explore alternative sustainable development strategies for subsistence fisheries that rely on these marine ecosystems. Students are expected to participate in 2 days travel and 13 days of research on the Island. The daily schedule will include field research and independent study. Students are expected to devote time each day to researching and writing a final paper that integrates their field studies, interviews, and policy research. Students will also use this time to prepare and deliver an oral slide presentation on their research the last two days of the trip.

Requirements/Evaluation: oral presentation and 5-page research paper

Prerequisites: BIOL 203 or ENVI 101 or ENVI 102 or MAST 311 or permission of instructors

Enrollment Limit: 8

Enrollment Preferences: preference will be given to BIOL and ENVI majors and concentrators

Grading: pass/fail only

Materials/Lab Fee: none

This course is cross-listed and the prefixes carry the following divisional credit:

ENVI 25 BIOL 25

Attributes: TRVL Winter Study Travel Course

Winter 2022

TVL Section: 01 Cancelled

ENVI 31 (W) Senior Research and Thesis: Environmental Studies

To be taken by students registered for Environmental Studies 493-494.

Class Format: thesis

Grading: pass/fail only

Winter 2022

HON Section: 01 TBA Nicolas C. Howe

ENVI 99 (W) Independent Study: Environmental Studies

Open to upperclass students. Students interested in doing an independent project (99) during Winter Study must make prior arrangements with a faculty sponsor. The student and professor then complete the independent study proposal form available online. The deadline is typically in late September. Proposals are reviewed by the pertinent department and the Winter Study Committee. Students will be notified if their proposal is approved prior to the Winter Study registration period.

Class Format: independent study

Grading: pass/fail only

Winter 2022

IND Section: 01 TBA Nicolas C. Howe