# **ENVIRONMENTAL STUDIES**

### **Environmental Studies Major**

The Environmental Studies Major requires eight courses plus a thematic concentration (typically five courses) as part of a three-pronged program.

1. Four required core courses:

Code	Title
ENVS 100	Integrated Environmental Studies
ENVS 200	Environmental Analysis
ENVS 301	Environmental Practicum
ENVS 401	Environmental Senior Project (or approved senior experience *)

\*Generally speaking, majors enroll in ENVS 401 to complete the senior experience requirement. Alternatives include one semester of senior research independently arranged with a faculty member (typically ENVS 451; may be extended to a second semester with the addition of ENVS 452), or an approved senior experience in the area of study for a second major – e.g., ANSO 460 (Senior Research Seminar) or ENGL 453/454 (Senior Writing Project). Students planning to fulfill the ENVS senior experience other than through ENVS 401 are expected to consult with the ENVS Program Director prior to registration for the Fall of their senior year.

2. Four distribution courses: Students are to fulfill the requirements of the distribution categories listed below. No double counting is permitted among these distribution categories or between the distribution courses and the concentration. See the ENVS website for updates to the list of courses that may be used to fulfill these categories. Also note that some of these courses have prerequisites.

a. One environmental methods course from the Humanities or the Arts. Examples include:

Code	Title
AHVC 263	World Views: Spatial Imagination in East Asia
AHVC 302	Medieval Art and Architecture
CLAS 312	Ancient Identities
ENGL 291	Nature and the Literary Imagination
ENGL 391	Nature's Nation
ENVS 256	Farmscape: Visual Immersion in the Food System
HIST 240	Advanced Studies in Latin American History (when taught as "Environmental History of Latin America")
PHIL 260	Environmental Philosophy
REL 205	Religion and Nature
See the ENVS website for a comple	te and current list.

See the ENVS website for a complete and current list.

b. One environmental course from the Social Sciences. Examples include:

Code	Title
ECON 202	Microecon Analysis Lec
ECON 427	Environmental Economics

COMM 215	Special Topics in Communication (when taught as "Environmental Communication")
ENVS 240	Environmental Politics and Decision Making
ENVS 262	Environmental Dispute Resolution
ENVS 284	Environmental Planning and Design
ENVS 334	Sustainable Agriculture
See the ENVS website for a complete and current list.	

c. A two-course sequence in the Natural Sciences. Examples include:

Code BIOL 230	Title Ecology and Evolution (BIOL 210 & 220 prerequisites)
ENVS 215	Renewable Energy Systems (any 100 or 200 level science course prerequisite)
ENVS 274	Ecosystem Management (any 100 or 200 level science course prerequisite)
EESC 200	Environmental Geology
EESC 240	Earth Resources

3. A thematic concentration. The concentration is a set of courses (typically five) that provides depth in an area of interest. Concentration courses may not double count with the Core or Distribution categories above. Approved concentrations are given on the ENVS website. Examples include: Creative Environments, Ecosystem Conservation, Environmental Art History, Environmental Biology, Environmental Decision Making, Environmental Economics, Environmental Geoscience, Global Environmental Justice, Journalism, Sustainable Agriculture, Sustainable Design, and Sustainable Development. Students may also design their own thematic concentration, pending program approval, including coordinated double majors in Art History & Visual Culture, Biology, and Economics. ENVS majors declare their concentration in the early Spring of sophomore year.

### **ENVS Thematic Concentration Options**

Students who major in Environmental Studies are required to fulfill the eight core/distribution courses (100, 200, 301, 401, an environmental science sequence of two courses, one environmental social science course, and one environmental arts/humanities course).

Additionally, majors each designate an area of concentration, which is intended to provide depth in an area of study relevant to the field. ENVS concentrations are all five courses

This document describes the design of nine different ENVS thematic concentrations:

- Creative Environments
- · Ecosystem Conservation
- Environmental Decision Making
- Environmental Geoscience
- Global Environmental Justice
- Journalism
- · Sustainable Agriculture

- Sustainable Design
- Sustainable Development

Note that students may propose their own self-designed thematic concentration, subject to the approval of the ENVS ProgramCommittee. These can take many forms, and in some cases could be designed around a second major in Art History and Visual Culture, Biology, Communication, Data Analytics, Environmental Science, Economics, Global Commerce, Global Health, or International Studies. See more information on these options at the end of this document. Other second majors may also be suitable, per approval of the ENVS Program Committee.

In all concentrations, other relevant courses may be added to these lists as they are developed and offered by faculty. Also note that appropriate Off Campus Study courses may count toward most thematic concentrations.

#### **Creative Environments**

This arts- and humanities-based concentration offers students the opportunity to explore a range of ways humans and societies have represented, performed, mediated, and otherwise imagined built and natural environments. By studying verbal, visual, and performative representations of the environment across periods and traditions, students will think critically about cultural constructions of built and natural environments. By immersing themselves in the imaginative process and creating artistic works that engage the environment, students will reflect on the ways our personal and cultural assumptions about the environment inflect the ways we represent, narrate, and otherwise imagine both built and natural environments. ENVS majors with this concentration will achieve a solid grounding both in the critical assessment and interpretation of mediated environments and in the creative, imaginative making of such mediations. Students who pursue this concentration will be well-equipped for jobs in the environmental arts and humanities in particular, but the skills developed in this concentration have broad application to a wide array of career paths.

This concentration involves five courses, and students may choose whether to emphasize critical approaches or creative expression in the arts and humanities. The difference is in balancing two courses from one category and three from the other.

1,2) Two of the following Critical Approaches courses:

<b>Code</b> AHVC 204	<b>Title</b> High Renaissance and Baroque Art & Architecture
AHVC 263	World Views: Spatial Imagination in East Asia
AHVC 302	Medieval Art and Architecture
CLAS 312	Ancient Identities
ENGL/ENVS 291	Nature and the Literary Imagination
ENGL/ENVS 391	Nature's Nation
ENVS 290	Special Topics in Environmental Studies
HIST 240	Advanced Studies in Latin American History
PHIL 260	Environmental Philosophy
REL 205	Religion and Nature

3,4) Two of the following Creative Expression courses:

Code	Title
ARTS 165/ENVS 290	Special Topics in Studio Art (Drawing Terrain)
ARTS 365/ENVS 290	Advanced Special Topics (Landscape Painting)
ENVS 256	Farmscape: Visual Immersion in the Food System
ENVS 290	Special Topics in Environmental Studies (Confronting Climate Change through Photography)
DANC 274	Cultural Studies

5) One additional course from either group above.

#### **Ecosystem Conservation**

The Ecosystem Conservation concentration offers students an integrated understanding of ecological systems, including theoretical foundations, practical applications, and socio ecological connections. The three required courses provide a conceptual basis of systems ecology and the field, lab and data management skills that are essential for ecosystem practitioners. The choices provide opportunities for application of conservation concepts in complex political and biological environments. ENVS majors with a concentration in Ecosystem Conservation will be well-prepared for careers in such fields as environmental consulting, land use planning and regulation, land and water stewardship and geospatial analysis.

Code	Title	
ENVS 222	Geographic Information Systems I	
& ENVS 223	and Geographic Information Systems II	
or EESC 234	Applied GIS for Earth and Environmental Sciences	
ENVS 274	Ecosystem Management	
or BIOL 352	Conservation Biology	
and one of the fo	llowing Conservation Policy courses:	
ENVS 236	Political Ecology	
ENVS 240	Environmental Politics and Decision Making	
ENVS 262	Environmental Dispute Resolution	
and one of the following Organismal courses:		
BIOL 312	Herpetology	
BIOL 313	Vertebrate Zoology	
BIOL 326	Plant Evolution and Reproduction	
BIOL 327	Biology of Insects	
	llowing Ecological Systems courses (not to double 274 or BIOL 352):	
ENVS 274	Ecosystem Management	
BIOL 310	Wetland Ecology	
BIOL 352 & BIOL 353	Conservation Biology and Population and Community Ecology	

#### **Environmental Decision Making**

This theme offers a lens onto the process by which environmental decisions are – and can – be made. It is not content-specific, though certainly a student could focus attention on a particular category of decisions – a particular policy area – for some of the coursework chosen as part of the theme. The courses included in the list below are all aimed at better understanding the factors that affect behavior and various frameworks in which environmental decision-making takes place ranging from the individual to the group, from the community to the institutional.

Some courses aim at skill-building while others emphasize a normative exploration or an emphasis on theory-building.

Code	Title	
ENVS 240	Environmental Politics and Decision Making	
and two of the fo	llowing Environmental Context courses:	
COMM 215	Special Topics in Communication	
ENVS 236	Political Ecology	
ENVS 262	Environmental Dispute Resolution	
ENVS 284	Environmental Planning and Design	
ENVS 290	Special Topics in Environmental Studies	
PHIL 260	Environmental Philosophy	
and two of the following Decision Making Techniques courses:		
BIOL 356	Special Topics	
COMM 122	Argumentation	
CS 112	Discovering Computer Science: Markets, Polls, and Social Networks	
DA 101	Introduction to Data Analytics	
ENVS 222 & ENVS 223	Geographic Information Systems I and Geographic Information Systems II	
or EESC 234	Applied GIS for Earth and Environmental Sciences	
DPR 101	Data Visualization for Political Research	
DPR 201	Design and Data Analysis for Social Impact	
DPR 250	Writing with Data in the Public Interest	

#### **ENVIRONMENTAL Geosciences**

The Environmental Geoscience concentration provides ENVS students with an option in the physical sciences. The fundamentals of geology are combined with Geographic Information Systems (GIS) and elective choices in earth systems and landscape science.

Students choosing this option will complete the core and distribution requirements of the ENVS major and will fulfill their concentration as follows (concentration courses may not double-count with ENVS core or distribution courses).

Code	Title
EESC 200	Environmental Geology
or EESC 240	Earth Resources
EESC 210	Historical Geology
or EESC 211	Rocks, Minerals & Soils
ENVS 222 & ENVS 223	Geographic Information Systems I and Geographic Information Systems II
or EESC 234	Applied GIS for Earth and Environmental Sciences
and one of the fo	llowing:
EESC 270	Oceanography
EESC 300	Geomorphology
EESC 313	Environmental Hydrology
EESC 333	Stable Isotopes in the Environment
and one of the fo	llowing:
ENVS 215	Renewable Energy Systems
ENVS 274	Ecosystem Management
ENVS 310	Wetland Ecology
ENVS 334	Sustainable Agriculture
BIOL 351	Restoration Ecology

#### **GLOBAI ENVIRONMENTAL Justice**

Global environmental justice is an important field of academic study and the basis for a major form of social action and practice. Questions of justice are multi-scalar and arise within societies and across nations, cultures and species. This theme examines how and why certain populations experience disproportionate environmental and health harms as well as unequal access to resources associated with well being. Key focus areas of the concentration include studying: 1) the structural factors underpinning injustices and inequalities, and 2) the meaningful inclusion of all people in environmental and social decisions impacting their communities. In sum, this concentration involves an interdisciplinary investigation of all three concepts in its title as ones that require careful analysis, and are often contested by activists and scholars: "global," "environmental" and "justice."

Code	Title
ENVS 290	Special Topics in Environmental Studies
One course that addresses the intercomponents of this concentration:	rsections among the three conceptual
ANSO 321	Anthropology of Human Rights
ECON 202	Microecon Analysis Lec
ENVS 236	Political Ecology
PHIL 260	Environmental Philosophy
One course on conception of justice	e:
ANSO 321	Anthropology of Human Rights
ECON 201	Economic Justice
ENVS 262	Environmental Dispute Resolution
ENVS 290	Special Topics in Environmental Studies (Explorations in Animal Studies)
PHIL 126	Social and Political Philosophy
REL 102	Ethics, Society and the Moral Self
REL 224	Religion and Social Ethics
PHIL 326	Theories of Justice
One course on conceptions of globa	alization:
ANSO 218	Sociology of International Development
ANSO 321	Anthropology of Human Rights
BLST 345	Advanced Topics in Black Studies
GH 352	Planetary Health
HIST 380	Research Seminar in Early United States History
INTL 100	Introduction to International Studies: The Making of the Modern World
PPA 344	The United Nations and World Problems
PPA 345	Human Rights in Global Perspectives
WGST 306	Transnational Feminism
WGST/REL 327	Women and Social Ethics in the Global Context

and an additional course from conceptual components, justice, or globalization categories.

#### Journalism

The Journalism concentration provides exploration and skill-building in long-format, in-depth storytelling that is both attractive to some ENVS majors and useful preparation for potential career paths.

Code	Title
JOUR 100/COMM 108	Introduction to News Reporting and Writing
JOUR 200/ENGL 221	Literary Journalism
JOUR 201/ENGL 386	Multimedia Storytelling
JOUR 300	Experiential Reporting (Must be taken during the Junior or Senior Year.)

and one elective, selected in consultation with the director of the Journalism Program.

#### Sustainable Agriculture

interdisciplinary perspectives on the issue of food production and food distribution. These perspectives should allow students to think critically about the environmental, social, and economic impacts of food production and distribution. To this end, students are expected to take two science courses related to plant biology, earth systems or climate change. Additionally, students will take a course on social movements and/or issues of justice to help identify the social factors that have played a role in the sustainability of food systems (e.g., worker's rights, labor movement). The last requirement is flexible to include any food related course from any division, including courses off campus.

Code	Title
ENVS 334	Sustainable Agriculture
and two of the fo	llowing Biology, Earth Systems, or Climate courses:
BIOL 326	Plant Evolution and Reproduction
BIOL 327	Biology of Insects
ENVS 222 & ENVS 223 or EESC 234	Geographic Information Systems I and Geographic Information Systems II Applied GIS for Earth and Environmental Sciences
EESC 111	Planet Earth
EESC 115	Special Topics in Earth & Environmental Science
EESC 211	Rocks, Minerals & Soils
and two of the fo	llowing Context courses:
ANSO 218	Sociology of International Development (Confronting Climate Change through Photography)
BLST 340	
ENVS 236	Political Ecology
ENVS 256	Farmscape: Visual Immersion in the Food System
ENVS 242	Community Resilience
ENVS 262	Environmental Dispute Resolution
ENVS 290	Special Topics in Environmental Studies
LACS 414	International Labor Migration in a Globalized Economy
REL 205	Religion and Nature

#### Sustainable Development

In 1987, the Brundtland Commission defined this term for the ages: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (*Our Common Future*). While its focus may be largely on parts of the world where "needs" are unmet and poverty is endemic, a concentration in sustainable development will also seek to address the systemic nature of ecological, social, historical, and economic crises the world over. Therefore, the courses in this theme are generally international in their orientation and aimed at fostering a culturally sensitive understanding of the distinct challenges faced by developing countries and post-industrial societies in their socio-economic development trajectory.

Code	Title
Choose one of the following foundat	tion courses:
ANSO 218	Sociology of International Development
ECON 202	Microecon Analysis Lec
ENVS 236	Political Ecology
Choose four courses from the follow each category (no double counting p courses:	
A. Culture and Historical Setting:	
AHVC 263	World Views: Spatial Imagination in East Asia
AHVC 302	Medieval Art and Architecture
CLAS 312	Ancient Identities
LACS 200	Special Topics in Latin American and Caribbean Studies
B. Context and Application:	
ANSO 321	Anthropology of Human Rights
ENVS 334	Sustainable Agriculture
GH 100	Introduction to Global Health
ENVS 290	Special Topics in Environmental Studies (Community Resilience)
ENVS 290	Special Topics in Environmental

ENVS 290	Special Topics in Environmental Studies (Environmental Justice)
C. Social Process:	
BLST 340	
ANSO 218	Sociology of International Development
ECON 202	Microecon Analysis Lec
ECON 427	Environmental Economics
ENVS 236	Political Ecology
ENVS 240	Environmental Politics and Decision Making
ENVS 262	Environmental Dispute Resolution
ENVS 290	Special Topics in Environmental Studies (Solving the Unsolvable)
GC 220	Sustainable Global Finance
GH 352	Planetary Health

#### Sustainable Design

This theme interrogates the ways we construct our built environment, with an eye to approaches that emphasize ecological harmony, local materials, waste reduction, energy efficiency, and stewardship in the form of both cultural and environmental sensitivity. While Denison does not have any curricular dedication to city planning or architectural studies, there are a variety of courses which students can combine into a liberal arts examination of the core issues in these areas of study. Students who select this theme have the option of choosing a technological/ structural or behavioral approach, and should be able to articulate individualized reasoning as to why particular courses are chosen for the orientation of interest.

Code	Title
ENVS 284	Environmental Planning and Design
and one of the following Environmental Systems courses:	
EESC 200	Environmental Geology
ENVS 215	Renewable Energy Systems
ENVS 274	Ecosystem Management
ENVS 222 & ENVS 223	Geographic Information Systems I and Geographic Information Systems II
or EESC 234	Applied GIS for Earth and Environmental Sciences
and one of the fo	llowing visual/aesthetic courses:
AHVC 302	Medieval Art and Architecture
AHVC 204	High Renaissance and Baroque Art & Architecture
ARTS 165	Special Topics in Studio Art (Drawing Terrain)
ARTS 265	Special Topics in Studio Art (Landscape Painting)
and one of the following context courses:	
CLAS 312	Ancient Identities
COMM 234	Media Theory
ECON 202	Microecon Analysis Lec
ENVS 236	Political Ecology
ENVS 262	Environmental Dispute Resolution
ENVS 290	Special Topics in Environmental Studies (Environmental Justice)
and an additiona	Loguran from Environmental Systems Visual/

and an additional course from Environmental Systems, Visual/ Aesthetics, or Context courses.

#### **Self-Designed Concentration Options**

Students may propose their own self-designed thematic concentration, subject to the approval of the ENVS Program Committee. These can take many forms, and typically require the student to work with ENVS faculty to develop thematic description and a list of 5 courses to be taken, plus some alternate course selections. Self-Designed themes that involve Off Campus Study courses are welcome (up to two OCS courses may count toward the ENVS major for a semester abroad; up to three for a year abroad).

In some cases, a Concentration could be designed around a second major. If you are considering one of these, see the notes below. Listed here are courses taught in these disciplines which may be suitable for use within an ENVS concentration and also be used to satisfy requirements in the disciplinary major.

	Title
ART HISTORY AND VISUAL CULTURE:	
AHVC 101	The Western World: Ancient to Baroque
AHVC 201	<b>Classical Art and Architecture</b>
AHVC 203	Early Renaissance Art and Architecture
AHVC 204	High Renaissance and Baroque Art & Architecture
AHVC 211	
AHVC 263	World Views: Spatial Imagination in East Asia

AHVC 302	Medieval Art and Architecture
BIOLOGY:	
BIOL 230	Ecology and Evolution
BIOL 313	Vertebrate Zoology
BIOL 317	Diversity of Microorganisms
BIOL 321	Plant Ecology
BIOL 326	Plant Evolution and Reproduction
BIOL 334	Comparative Physiology: Human and non-human animals
BIOL 353	Population and Community Ecology
Note that these courses typically real BIOL 230 as prerequisites.	quire BIOL 210, BIOL 220, and
ECONOMICS:	
ECON 201	Economic Justice
ECON 202	Microecon Analysis Lec
ECON 204	Income Inequality
ECON 240	General Topics in Intermediate Economics (A Global Green New Deal)
ECON 412	Economics of the Developing World
ECON 415	Political Economy of the Middle East

ECON 427 Environmental Economics ECON 461 Growth, Distribution, and Instability ECON 462 Health Economics The Economics major requires four advanced courses. In order to complete a double-major with ENVS, students need to enroll in one

complete a double-major with ENVS, students need to enroll in one additional environmentally-relevant ECON elective to complete the fivecourse ENVS concentration requirement.

#### **Environmental Science**

The following EESC courses have clear relevance to ENVS:

Code	Title
EESC 111	Planet Earth
EESC 200	Environmental Geology
EESC 222	Geographic Information Systems I
EESC 270	Oceanography
EESC 300	Geomorphology
EESC 308	Biodiversity Through Time
EESC 333	Stable Isotopes in the Environment

Additional double major combinations that are potentially doable in terms of substantive crossover are Communication, Data Analytics, Global Health, Global Commerce, and International Studies. Please see an ENVS advisor for planning of these combinations.

### **Environmental Studies Minor**

The Environmental Studies Minor requires six courses. Regular offerings are listed here for each category. Check with the ENVS program office or website for a list of special offerings that may be allowed to fulfill each requirement. Also note that some of these courses have prerequisites.

- 1. ENVS 100 Integrated Environmental Studies
- 2. ENVS 200 Environmental Analysis

Four distribution courses: Students are to fulfill the requirements of the distribution categories listed below. No double counting is permitted

among these distribution categories. See the ENVS website for updates to the list of courses that may be used to fulfill these categories. Also note that some of these courses have prerequisites.

1. One environmental course from the Humanities or the Arts:

Code Examples include:	Title
AHVC 263	World Views: Spatial Imagination in East Asia
AHVC 302	Medieval Art and Architecture
CLAS 312	Ancient Identities
ENGL 291	Nature and the Literary Imagination
ENGL 391	Nature's Nation
ENVS 256	Farmscape: Visual Immersion in the Food System
HIST 240	Advanced Studies in Latin American History
PHIL 260	Environmental Philosophy
REL 205	Religion and Nature

2. One environmental course from the Social Sciences.

Code	Title
Examples include:	
COMM 215	Special Topics in Communication (when taught as "Environmental Communication")
ECON 202	Microecon Analysis Lec
ECON 427	Environmental Economics
ENVS 240	Environmental Politics and Decision Making
ENVS 262	Environmental Dispute Resolution
ENVS 284	Environmental Planning and Design
ENVS 334	Sustainable Agriculture

3. A two-course sequence in the Natural Sciences.

Code	Title
Examples include:	
BIOL 230	Ecology and Evolution
ENVS 215	Renewable Energy Systems
ENVS 274	Ecosystem Management
GEOS 200	Environmental Geology
GEOS 240	Earth Resources

## **Additional Points of Interest**

#### Choosing a Concentration for the ENVS major

Students who major in ENVS choose an area of concentration during the sophomore year. Prospective ENVS majors are encouraged to discuss possible concentrations with any of the ENVS-affiliated faculty listed above prior to the sophomore year. The concentration proposal deadline is typically early in the Spring semester.

#### ENVS courses and General Education (GE) requirements

Courses taken under the ENVS heading typically fulfill the Interdivisional (I) General Education requirement. In the case of cross-listed courses,

students may choose to enroll under the ENVS heading to earn the Interdivisional (I) GE, or the heading of the home department to earn the GE designation appropriate for that department. In either case, the course will count toward the ENVS major or minor. Students are typically able to fulfill a maximum of five GE requirements through the ENVS major.

#### **Off-Campus Study**

Students are encouraged to participate in study abroad programs when appropriate to enhance the concentration area or otherwise supplement course offerings at Denison. Students who want to study abroad should plan to do so during their junior year. Courses taken abroad that serve as substitutes for courses listed above or that are otherwise used to satisfy elements of the Environmental Studies major must be approved in advance by the Environmental Studies Director, prior to the student's departure for the off campus program. A maximum of two off-campus courses may be used to satisfy requirements in the major for students who spend one semester off-campus, and a maximum of three offcampus courses may be used to satisfy requirements in the major for students who spend two semesters off-campus.