Curricular Pathways
Environmental Studies Majors

Contents
Objectives and Summary
Pathway Milestones Explained
Areas of Interest for Pathways
Submitting Pathways Documents

Appendix
Pathway Proposal Template
Capstone Experience Proposal Template
Pathway Report Template

Adam Joseph Lewis Center for Environmental Studies
122 Elm Street
Oberlin, Ohio 44074

Revised 4.17.19
Environmental Studies (ES) majors are required to complete a “curricular pathway”. A curricular pathway is a course of study that equips an ES major with a depth of knowledge, analytical skills and experiences related to understanding and addressing a particular topic or subject area of special interest to that student. Although certain pathways may emphasize tools from particular disciplinary perspectives, the program recognizes that many of the most pressing contemporary issues in ES are highly interdisciplinary and can be most successfully understood through a curricular plan that focuses course work across disciplines. For students interested in pursuing highly interdisciplinary topics such as climate change, urban agriculture, or water resource management, courses will necessarily be selected from multiple different departments and disciplines. In contrast, students wishing to pursue pathways that necessitate strong background within one traditional discipline, (e.g., in environmental chemistry, environmental policy, environmental economics, etc.) are encouraged to consider an appropriate double major in association with their pathways. We anticipate that students who successfully complete the ES major will report their pathways to graduate schools and potential employers. However, the particular pathways completed will not be reported on a student’s Oberlin transcript.

Successful completion of a pathway is marked by the creation and approval of four milestones:

<table>
<thead>
<tr>
<th>PATHWAY MILESTONE</th>
<th>WHEN IT IS DUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Pathway Area of Interest selected</td>
<td>At the time the major is declared (on majors checklist)</td>
</tr>
<tr>
<td>2) Pathway Proposal</td>
<td>Students are encouraged to complete a pathway proposal as early as possible during the major as it aids in advising. The Pathway Proposal must be approved by March 1 or October 1 of the semester after students declare, unless declaring in the second semester of sophomore year or later, in which case it will be due by the end of that semester.</td>
</tr>
<tr>
<td>3) Capstone Experience Proposal</td>
<td>Students will complete the capstone proposal by the end of the second semester of their junior year. Students studying away have until October 1st (or March 1st) of the first semester of senior year.</td>
</tr>
<tr>
<td>4) Pathway Report</td>
<td>The pathway report must be approved by April 1 (or November 1) of the student’s final semester.</td>
</tr>
</tbody>
</table>

Students must submit, discuss and receive approval for each of these milestones from their advisor. Only after receiving approval are students to upload these documents to the appropriate portal on the ES BlackBoard site. The advisor will notify the ES Administrative Assistant at the time when the pathway proposal, the capstone proposal, and the pathway report are complete. This information will then be entered into the student’s academic record and will appear on Degree Works as having been completed; students will not graduate with an ES major without the registrar’s record that these milestones have been completed. The four milestones of the pathway are explained in greater detail below. Students should submit their Pathway Proposal, Capstone Proposal and Pathway Report as MSWord documents based on templates contained at the end of this document.

Objectives and Summary

Pathway Milestones Explained

1) Pathway Area of Interest Selection

At the time that students declare an ES major, they must discuss with their advisors and select an area of interest for their pathways from the list of those approved and record this on the Checklist of Environmental Studies Major Requirements.

2) Pathway Proposal

A complete pathway proposal is a single document that includes a “statement of goals and intent” and a proposed “course trajectory.” The statement of goals and intent describes the theme that the student intends to pursue, provides a rationale for the importance of that theme, and describes the specific goals with respect to knowledge, skills, and expertise and the intended outcomes. This statement must use the template described in the “Curricular Pathways for Environmental Studies Majors” document - available on Blackboard and from the ES Program Office. It should include the questions and directly and sequentially address each of the questions on that template. The course trajectory is a semester-by-semester sequence of courses that the student has taken and intends to take to complete the proposed pathway. Note that courses listed in this sequence should fulfill all requirements described in the “Checklist of ES Major Requirements.” During each advising session after the first, the advisor will review the course trajectory with the advisee and appropriate adjustments will be made based on changes in focus and course availability.

An MSWord version of the approved pathway proposal should be given the file name “Firstname. Lastname.PathwayProposal.doc” and posted to the Environmental Studies Blackboard Site. An email indicating that the document has been submitted should be sent to the advisor. The pathway proposal is an agreement between a student, their advisor, and the ES program. The responsibility of proposing, revising, and executing a focused pathway is the student’s. Students are also responsible for ascertaining that proposed courses are, in fact, scheduled to be offered during the semesters indicated in their course trajectory and that they will have the necessary prerequisites to take them (students may need to consult with instructors and departments to determine this). The responsibility of reviewing, requesting revisions, and approving each student’s pathway proposal rests with that student’s advisor. After a pathway proposal has been approved by a student’s advisor, course substitutions and other changes can occur with the approval of the advisor through the student’s senior year. If a student wishes to make substantial changes in the focus of their course of study, the pathway proposal must be revised, approved, and re-approved by that student’s advisor, and then resubmitted electronically to the ES Program.
3) Capstone Proposal

The capstone experience provides students with a concrete opportunity to apply, integrate, and further develop knowledge and skills from multiple courses in order to achieve the goals that student defines in the pathway proposal. The capstone experience can be fulfilled in a variety of ways including study away, summer fellowships, honors projects, private reading, independent research, certain courses (which must be approved by the student’s advisor), and Winter Term experiences. The capstone proposal articulates the way in which a proposed experience contributes to the pathway. The template for the capstone proposal is included in “Curricular Pathways for Environmental Studies Majors.”

An MSWord version of the approved capstone proposal should be given the file name “Firstname.Lastname.CapstoneProposal.doc” and posted to the Environmental Studies Blackboard Site. An email indicating that the document has been submitted should be sent to the advisor.

4) Pathway Report

The pathway report provides each student with the opportunity to reflect on the ways in which the chosen pathway has (and has not) achieved the goals and intent specified in that student’s pathway proposal and to reflect on how the capstone experience contributed to the pathway. The report should address the specific questions and follow the format of the template provided in “Curricular Pathways for Environmental Studies Majors.” The ES Program will notify the registrar of successful completion of the report as a requirement for completion of the ES major. In addition to its function as a reflective document, the pathway report will also serve as a portfolio document for the ES Program in its ongoing curricular assessment process.

An MSWord version of the approved Pathway Report should be given the file name “Firstname.Lastname.PathwayReport.doc” and posted to the Environmental Studies Blackboard Site. An email indicating that the document has been submitted should be sent to the advisor.

Areas of Interest for Pathways

Areas of Interests that are supported by the Oberlin curriculum are listed below. A variety of pathways are possible within each of these Areas of Interests. The substantial flexibility allows students to choose what interests them most. It is the responsibility of a student to work with their advisor to discuss and then craft a pathway proposal that articulates the specific focus that the student will then pursue. The particular types of capstone experiences, including study away options, research experiences, internships, and other learning opportunities differ for different pathways and should be explored with a student’s advisor early on. It is important to recognize that the list of courses associated with each pathway are simply recommendations; it is up to the student, in consultation with their advisor, to choose a course trajectory that meets the particular objectives that a student defines in their pathway proposal.

<table>
<thead>
<tr>
<th>Agriculture &amp; Food Studies</th>
<th>Environmental Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Literature &amp; Media</td>
<td></td>
</tr>
<tr>
<td>Environmental Politics &amp; Policy</td>
<td></td>
</tr>
<tr>
<td>Environmental Psychology</td>
<td></td>
</tr>
<tr>
<td>Indigenous Environmental Issues</td>
<td></td>
</tr>
<tr>
<td>Public Health</td>
<td></td>
</tr>
<tr>
<td>Global Environmental Issues</td>
<td></td>
</tr>
<tr>
<td>Sustainable Enterprise &amp; Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>Systems Ecology</td>
<td></td>
</tr>
<tr>
<td>Urban Sustainability (or Sustainable Communities)</td>
<td></td>
</tr>
<tr>
<td>Water &amp; Society</td>
<td></td>
</tr>
</tbody>
</table>

Agriculture & Food Studies

Pathway proposals should define a clear focus within the wide range of possible approaches to the study of agriculture and food studies. For example, pathways might emphasize agrarian literature, food access and food justice, sustainable agriculture, farm economics, or ecological and biogeochemical perspectives. We strongly encourage all students pursuing this pathway to take an appropriate balance of coursework in the humanities, social sciences, and natural sciences. Students are also encouraged to use summer, WT, and (especially) study away experiences as means of building and exploring their understanding of agriculture and food.

Foundation courses might include:

- American Agricultures (ENVS 302)
- Political Ecology (ENVS 342)
- Literature and the Land: Writing Nature in Russia and America (RUSS 329)
- Soils and Society (GEOG 152)
- Systems Ecology (ENVS 316)
- Systems Modeling (ENVS 340)
- Ecological Perspectives on Small-Scale Societies (ANTH 212)
- Practicum in Agroecology (ENVS 336 and ENVS 337)

Suggested research methods courses include:

- CAST 305
- ECON 255
- ENVS 301
- ENVS 316
- ENVS 340
- GEOL 235
- GSFS 305
- POLT 205
- PSYC 200
- SOCI 301/302
- STAT 113/114

Students who wish to focus in Food Justice should take at least one class that examines power, agency, and inequality, such as CAST100 or AAST101. Students interested in urban agriculture should consider taking Sustainable Cities (ENVS390), American Urbanism (SOCI241) and/or Environmental Sociology (SOCI214).
Art & the Environment

Students following pathways in this area engage in critical and creative explorations of the intersections between various art forms (including visual art, architecture, creative writing, music, dance, cinema and media) and environmental studies. These pathways might entail investigating the many artists who have interpreted and documented the landscape and environment, engaging in cross-disciplinary and collaborative research/field study involving art and the environment, and pursuing creative projects involving the environment and environmental issues. Students are encouraged to consider a second major in Studio Art, Art History, Dance, Music, or a related department.

Foundation courses might include:
- Art and the Environment (ARTS 041)
- What’s Natural Isn’t Real (ARTS 048)
- Land Arts in an Electronic Age (ARTS 093)
- Creative Resistance (ARTS 075)
- Renegade Nature (ARTS 092)
- Modernism and Environmentalism in Architecture of the 20th century (ARTS 371)
- Space and Environment (ARTS 425)
- Architecture and Climate (ARTS 472)
- Somatic Landscapes (DANC 203)
- Indigenous Environmentalism (ENVS 327)
- Music and Ecology (ETHN 212)
- Introduction to Electro-acoustic Music (TECH101)
- Workshop in Music & Media Technology (TECH 350)

Suggested research methods courses include:
- CAST 300
- ENVS 301
- GSFS 305
- POLT 205
- PSYC 200
- SOCI 301

Climate Change Studies

Climate change studies can be integrated into every discipline: natural sciences, social sciences, humanities, and the arts. The ENVS program is particularly strong in the social dimensions of climate change, including impacts on Indigenous peoples, environmental racism, and opportunities for local engagement through the Environmental Dashboard. Beyond ENVS, courses in Biology, Geology, Politics, and many other majors are available.

Foundation courses might include:
- Indigenous Peoples and Climate Change (ENVS 225)
- Indigenous Environmentalism (ENVS 327)
- Political Ecology (ENVS 342)
- Earths Environments (GEOL 120)
- Environmental Geology (GEOL 240)
- Climate Change (ENVS 219)

Suggested research methods courses include:
- ENVS 316
- ENVS 340
- GEOL 235
- POLT 205
- STAT 113/114

Other relevant courses are:
- Environmental Economics (ENVS 231)
- Energy Economics (ENVS 332)
- Environmental Policy (ENVS 208)
- Systems Ecology (ENVS 316)
- Systems Modeling (ENVS 340)
- Sustainable Cities (ENVS 390)
- Ecological Communications (ENVS 354)
- Environmental Sociology (SOCI 284)
- Seminar in Coal, Communities, and Culture (SOCI 438)

Energy and Society

Energy issues are central to the challenge of sustainability in the 21st century – particularly due to our heavy reliance on greenhouse gas (GHG) intensive non-renewable fossil fuels and their impact on environment and society. Students pursuing an Energy and Society pathway will may focus on energy supply, demand, consumption, conservation and alternatives with particular attention to the role of individuals and communities. While a basic understanding of science, technology and human decision making will be important to any pathway in Energy and Society, a given pathway will emphasize different aspects of challenges and opportunities. In some cases double majors may be appropriate, for example in economics, psychology, sociology, geology, physics or biology.

Foundation courses might include:
- Energy Technologies (PHYS 068)
- Energy and Society (ENVS 322)
- ENVS 316
- ENVS 340
- GEOL 235
- POLT 205
- STAT 113/114

Suggested research methods courses include:
- Energy Technologies (PHYS 068)
- Energy and Society (ENVS 322)
- ENVS 316
- ENVS 340
- GEOL 235
- POLT 205
- STAT 113/114

Other relevant courses are:
- Environmental Economics (ENVS 231)
- Energy Economics (ENVS 332)
- Environmental Policy (ENVS 208)
- Systems Ecology (ENVS 316)
- Systems Modeling (ENVS 340)
- Sustainable Cities (ENVS 390)
- Ecological Communications (ENVS 354)
- Environmental Sociology (SOCI 284)
- Seminar in Coal, Communities, and Culture (SOCI 438)

Environmental Biology

Students pursuing pathways in environmental biology will relate appropriate fundamentals of biology to problems of conservation, invasive species, bioremediation, ecological restoration, disease ecology, etc. There may also be a particular focus on levels of biodiversity (e.g., genes, species, or landscape), techniques (field methods, molecular tools, models), and areas of investigation (e.g., habitat loss, hybridization, inbreeding, etc.). Students are encouraged to consider a double major in Biology.

Foundation courses might include:
- Plant Ecology (BIOL 202)
- Community Ecology (BIOL 205)
- Disease Ecology (BIOL 206)
- Genetics of Populations (BIOL322)
- Plant Systematics (323/324)
- Systems Ecology (BIOL 316)
- Systems Modeling (ENVS 340)
- Evolution (BIOL218) or Behavioral Ecology (BIOL315)

Suggested research methods courses include:
- Statistical Methods for the Biological Sciences (MATH 114)
- Plant Ecology (BIOL 202)
- Community Ecology (BIOL 205)
- Disease Ecology (BIOL 206)
- Genetics of Populations (BIOL322)
- Plant Systematics (323/324)
- Systems Ecology (BIOL 316)
- Systems Modeling (ENVS 340)
- Evolution (BIOL218) or Behavioral Ecology (BIOL315)

Beyond the core requirements for the biology major, those pursuing this pathway should consider taking two upper-level electives in related subdisciplines.
Environmental Chemistry

Students pursuing pathways focused on environmental chemistry will gain understanding of the methods of chemical analysis and their application to the study of chemicals in the natural and polluted environment. Students who intend postgraduate study or employment in environmental science fields in which strong chemical analysis skills are needed are strongly encouraged to double major in Chemistry. Students primarily interested in policy and advocacy with a more in-depth knowledge of the scientific methods and findings that are relevant to major environmental problems may consider pursuing this pathway with a chemistry minor. For those pursuing a double major or minor, Analytical Chemistry (CHEM211) serves as the required research methods course. For others, one of the statistics courses may be appropriate.

Foundation courses include:
- Introductory Chemistry sequence (CHEM 101 and 102 (or 103))
- Environmental Chemistry (CHEM 208)
- Organic Chemistry (CHEM 205)
- Analytical Chemistry (CHEM 211)
- Trace Analysis (CHEM 341)
- Environmental Policy (ENVS 208)
- Energy and Society (ENVS 322)
- Systems Ecology (ENVS 316)
- Systemic Modeling (ENVS 340)

Suggested research methods courses include:
- CHEM 211
- STAT 133/114

Environmental Economics

Pathways in environmental economics are meant to provide students with background in environmental, natural resource, and ecological economics. As early as possible, interested students should take Principles of Economics (ECON 101), which is a prerequisite for all upper level courses in the Economics Department.

Foundation courses might include:
- Environmental Economics (ECON 231)
- Energy Economics (ECON 332)
- Intermediate Microeconomics (ECON 253)
- Seminar: Environmental and Energy Economics (ECON 432)

Recommended courses are:
- Environmental Policy (POLT 208)
- Seminar on Global Environmental Politics (ENVS 323)
- Environmental Psychology (PSYC 440)

Suggested research methods courses include:
- CAST 300
- ECON 255
- ENVS 220
- ENVS 340
- GEOL 235
- POLT 205
- SOCI 301/302
- STAT 113/114

Environmental & Ecological Design

Ecological Design draws on natural science, social science, arts and the humanities to broadly consider how humans remake our presence in the world in a fashion that is both socially just and environmentally sustainable. Environmental Design focuses more specifically on understanding and critiquing plans, programs and approaches associated with creating sustainability in physical environments. Pathways may, for example, focus on sustainability in the built environment, on the practice of sustainable agriculture, on biomimicry and on ecological engineering.

Appropriate foundational courses and research methods will depend strongly on the particular environments considered but emphasize a variety of natural sciences and the social sciences that inform application. For example, a student wishing to pursue a pathway focused on the design of sustainable wastewater systems requires a strong grounding in biology, chemistry and geology. Students interested in ecological design of the built environment should consider taking Energy and Society (ENVS 322) and Sustainable Cities (ENVS 390). Certain students may be interested in combining this pathway with Oberlin's 3-2 engineering program.

Environmental Education

Students pursuing environmental education pathway should build a strong foundation in natural sciences, social sciences or humanities and supplement their core strengths with courses and experiences specifically focused on education. Students may choose to focus on critically analyzing the role of education as a mechanism for effecting environmental change or may choose to focus on obtaining background relevant to traditional or non-traditional education.

Foundation courses might include:
- Practicum in Ecological Communication (ENVS 354)
- Social Psychology (PSYC 218)
- Practicum in Tutoring (AAST 281)
- Principles of Education (EDUC 300)
- Alternative Pedagogies: Theory and Application (EDUC 312)
- Practicum in Social Justice Education (AAST 320)

Recommended courses are:
- CAST 300
- ENVS 220
- ENVS 340
- ENVS 340
- GSFS 305
- PSYC 200
- SOCI 301/302
Environmental Geology

Geology provides a spatial and temporal view of environmental topics that is larger than in most other disciplines. A pathway in environmental geology depends heavily on knowledge across the spectrum of natural science. It is recommended that all students interested in this pathway start early on with Earth’s Environments (GEOL120).

Foundation courses might include:
Depending on your particular interests, the Geology Department offers a variety of environmentally relevant foundational courses that could contribute to your pathway. You are also encouraged to look for relevant courses in the social sciences and humanities.

Other relevant courses are:
GIS (GEOL235)
Environmental Ethics (PHIL225)
Introductory Chemistry (CHEM101)
Earth Surface Processes (GEOL212)

Suggested research methods courses include:
CHEM 211
ENVS 316
ENVS 340
GEOL 235
STATS 113/114

Environmental Justice

Environmental Justice (EJ) is an interdisciplinary field that critiques the institutionalized oppression that places disproportionate burdens on communities of color and other vulnerable populations through exposure to toxic living and work environments. Environmental justice models a productive relationship between academic and activist communities and is one option for students who want to engage in community-based learning and research. Students in the EJ pathway will have the option of focusing on the history and current work of the EJ movement in the United States or internationally. An interdisciplinary range of coursework is essential for students who hope to work with EJ issues after graduation, whether through community organizing or fields such as law or science.

Foundation courses might include:
Climate Change (ENVS 219)
Local vs. Global: Environmental Issues Beyond Borders (ENVS 222)
Indigenous Peoples and Climate Change (ENVS 225)
Environmental Justice Literature (ENVS 304)
Indigenous Environmentalism (ENVS 327)
Political Ecology (ENVS 342)
Environmental Sociology (SOCI 284)
Seminar in Coal, Community, Culture (SOCI 438)
American Urbanism (SOCI 241)
Sustainable Cities (ENVS 390)

Suggested research methods courses include:
ENVS 301
PHIL 201
CAST 300
POLT 205
 CAST 400
PSYC 200
CHEM 211
STATS 113/114
ENVS 220
SOCI 301/302
ENVS 340
GEOL 235
GSFS 305

Environmental Literature & Media

Environmental Literature & Media (ELM) considers a variety of texts as well as methods of interpretation. As the area of ecocritical inquiry has developed in the last few decades, the interdisciplinary study of literature and environment has expanded to include film, media, and other forms of green cultural criticism. Students in ELM pathways will learn methods of interpretation informed by ecocritical theories as well as attention to historical and cultural contexts. ELM pathways can often be strengthened by double majoring in a related discipline (e.g. English, Cinema Studies, Comparative Literature, languages other than English).

Foundation courses might include:
Rivers in American Literature (ENGL 141)
Meaning and Being: Nature in 19th-century American Narrative (ENGL 223)
The Concept of Nature in Early American Literature (ENGL 255)
Introduction to the Advanced Study of Literature (ENGL 299)
Nature and Transcendentalism (ENGL366)
Climate Change: Ethics, Equity, Narratives (ENVS 214)
Environmental Justice Literature (ENVS 304)
American Agricultures (ENVS 302)
Indigenous Peoples and Climate Change (ENVS 225)
Literature and the Land (RUSS 329)
Land Arts in an Electronic Age (ARTS 093)
Creative Resistance (ARTS 075)
Digital Art and Public Space (TECH 110)
Renegade Nature (ARTS 092)
Introduction to Comparative Literature (CMPL 200)

Suggested research methods courses include:
ENGL 255
ENGL 299
ENVS 301
GSFS 305
Multiple goals of pathways in this Area of Interest include: 1) learning how to analyze approaches to policy making in environmental and natural resources domains; 2) understanding how interests and values contend for power and influence and how that competition affects environmental policy, and how political and legal institutions in the United States, in other countries, and in the international arena shape environmental outcomes; 3) gaining an appreciation for the role of parties, social movements, and interest groups in environmental politics, and how political ideas, cultures, and economic circumstances have shaped politics and policies; 4) seeking to understand the reasons for why environmental policies have and haven’t been effective.

Foundation courses might include:
- Environmental Policy (ENVS/POLT 208)
- Political Ecology (ENVS 342)
- Public Policy in America (POLT 209)
- Environmental Economics (ENVS 231)

Suggested research methods courses include:
- CAST 300
- CAST 400
- ECON 255
- ENVS 220
- POLT 205
- SOCI 301
- STAT 113

Other courses of particular relevance:
- Mass Politics in a Media Age (POLT 200)
- Natural Resource Economics (ENVS 331)
- Seminar on Global Environmental Politics (ENVS 323)
- Seminar on Natural Resources and Conflict (ENVS 324)
- International Law (POLT 226)
- Global Environmental History (HIST 180)
- American Urbanism (SOCI 241)
- Environmental Ethics (PHIL 225)
- American Constitutional Law (POLT 202)

Environmental Psychology

Through coursework and supplementary experiences, students in this Area of Interest will gain an understanding of humans’ psychological reaction to the natural and built environment and resource use, and how psychological principles can be used to foster environmentally sustainable choices and behaviors. A major or minor in Psychology is strongly encouraged.

Foundation courses might include:
- Social Psychology (PSYC 218)
- Environmental Psychology (PSYC 440)
- and an empirical research experience [either Methods in Community Based Social Marketing (PSYC 308); Research Practicum in Social and Environmental Psychology (PSYC 520); Personality/Social Laboratory (PSYC 301); Independent Research (PSYC 606) or Empirical Honors Research (PSYC 608)]

These should be taken as early as possible.

Other courses of particular relevance:
- Environmental Ethics (PHIL 225)
- Environmental Economics (ECON 231)
- Indigenous Peoples and Climate Change (ENVS 225)
- Indigenous Environmentalism (ENVS 327)

Suggested research methods courses include:
- Research Methods I (PSYC 200)

*For many students NSCI 201 will be the appropriate 4th science course.

Indigenous and marginalized peoples often stand on the forefront of global climate and ecological changes and social challenges. Therefore, it is important for us to cultivate in-depth knowledge and appreciation of Indigenous peoples’ complex and diverse cultures and histories, as well as their impacts on the global society. The Indigenous Studies pathway allows students to examine the long history and current status of how these peoples have interpreted and interacted with the landscape and environment. Students are encouraged to pursue a second major or minor in Anthropology, Art History, Comparative American Studies, Ethnomusicology, History, or a related field.

Foundation courses include:
- Nature, Culture, Interpretation (ENVS 201)
- Indigenous Peoples and Climate Change (ENVS 225)
- Society and Environment in Latin America and the Caribbean (ENVS 244)
- Indigenous Environmentalism (ENVS 327)
- Political Ecology (ENVS 342)
- Climate Change (ENVS 219)
- American Agricultures (ENVS 320)
- Environmental Justice Literature (ENVS 309)
- Environmental Justice and Local Knowledge (ENVS 320)

Other relevant courses are:
- An Introduction to Native American and Indigenous Studies (CAST 223)
- Art and the Environment (ARTS 041)
- Indigenous Peoples of Latin America (ANTH 210)
- Ecological Perspectives on Small-Scale Societies (ANTH 212)
- The Native Languages of the Americas (ANTH 402)
- Seminar on Culture, Contact and Colonialism (ANTH 456)
- From Comanches to Aztecs (ANTH 413)
- American Indians: Pre-Columbus to the Present (HIST 285)

Public Health

Pathways in this area will focus on understanding the ways in which human health is related to and dependent on the environment. The humanities, social sciences, and natural sciences all contribute in important ways to these understandings. In consultation with the advisor, a student will define a pathway that emphasizes a particular aspect of public health. For example, a pathway might consider ways in which the health of certain demographic groups are especially vulnerable to the consequences of environmental conditions. Double majors in areas most related to students’ interests are encouraged.
Public Health Can’t

Global Environmental Issues

Most of today’s pressing environmental problems transcend national boundaries and require international initiatives in order to pursue effective solutions. However, environmental impacts, institutional capabilities, patterns of resource use, and human attitudes towards the environment vary across and within political borders. That, coupled with an often unyielding sovereign state system makes management and protection of environment at the global level uniquely challenging. Students pursuing this pathway Area of Interest will learn about the bilateral, regional and international mechanisms operating in ecological systems, including those directly managed by humans. Pathways in this area will help students to explore economic and social dimensions of promoting sustainability in the public and private sectors. Examples of areas and approaches that students might choose to focus on include the campus ecology movement, environmental entrepreneurship, and approaches such as community based social marketing. Students doing work in this Area of Interest are encouraged to consider participation in the various programs offered by Oberlin’s Center for Creativity and Leadership associated with entrepreneurship.

Foundation courses might include:
- Global Environmental History (HIST 180)
- Environmental Policy (ENVS 208)
- Environmental Economics (ECON 231)
- Poverty and Affluence (ECON 321)
- Environmental Psychology (PSYC 221 or 240)
- Environmental Chemistry (CHEM 208)
- Emerging Infectious Diseases (BIOL 315)
- The Brain: An Introduction to Neuroscience (NSCI 201)

Suggested research methods courses include:
- ENVS 220
- ENVS 340
- ENVS 316
- GEOL 235
- POLT 205
- SOCI 301
- STAT 113/114

Sustainable Enterprise & Entrepreneurship

The promotion, diffusion and marketing of sustainability related ideas and products are burgeoning in both public and private sectors. Most large organizations in the public and private sector now include professionals on their staff who focus on sustainability. Pathways in this area will help students to explore economic and social dimensions of promoting sustainability in the public and private sectors. Examples of areas and approaches that students might choose to focus on include the campus ecology movement, environmental entrepreneurship, and approaches such as community based social marketing. Students doing work in this Area of Interest are encouraged to consider participation in the various programs offered by Oberlin’s Center for Creativity and Leadership associated with entrepreneurship.

Foundation courses might include:
- Social Psychology (PSYC 218)
- Environmental Ethics (PHIL 225 or ENVS 330)
- Environmental Economics (ECON 231)
- Natural Resource Economics (ENVS 331)
- Systems Modeling (ENVS 340)
- Environmental Justice: Theory and Practice (PHIL 217)
- American Urbanism (SOCI 241)
- Practicum in Ecological Communication (ENVS 354)

Suggested research methods courses include:
- CAST 300
- ECON 255
- ENVS 220
- ENVS 340
- GEOL 235
- POLT 205
- PSYC 200
- SOCI 301
- STAT 113/114

Systems Ecology

The field of systems ecology seeks to understand flows of energy, cycles of matter and control mechanisms operating in ecological systems, including those directly managed by humans. Pathways in this Area of Interest will equip students to pursue further academic study and career opportunities in systems ecology and in other systems-related disciplines. A double major with biology, geology, chemistry or physics may prove useful.

Foundation courses might include:
- Climate Change: Ethics, Equity and Narratives (ENVS 219)
- Environmental Economics (ECON 231)
- Energy and Society (ENVS 322)
- Natural Resource Economics (ENVS 331)
- Climate Change and Disaster in World History (HIST 382)

Suggested research methods courses include:
- CAST 300
- CAST 400
- ECON 225
- ENVS 220
- SOCI 301
- STAT 113/114
- POLT 205
- GEOL 235
- NSCI 212
- STAT 113/114

Other courses of particular relevance:
- Population Biology (BIOL 208) or Community Ecology (BIOL 205)
- Environmental Chemistry (CHEM 208)
- Analytical Chemistry (CHEM 211)
- Elementary Physics I (PHYS 103) or Mechanics and Relativity (PHYS 110)
- Marine Science (GEOL 161)
- Groundwater Hydrology (GEOL 242)
- Coral Reefs (GEOL 115)
- Glaciology (GEOL 111)
- Evolution of the Earth (GEOL 204)
- Environmental Economics (ECON 231)
- Applied GIS (GEOL 235)

Students are encouraged to consider taking a statistics course.
Urban Sustainability

Students pursuing pathways in Urban Sustainability will study the economic, social and environmental implications of urbanization. This Area of Interest provides students with an understanding of the opportunities and challenges of urban sustainability, equips them with concepts and techniques of urban and regional analysis, and introduces them to both historical and contemporary approaches to the design and management of sustainable communities and the built environment. Pathways may place greater or lesser emphasis on technical and socially oriented aspects of urban systems. An alternate emphasis may be placed on sustainability in non-urban communities.

Foundation courses might include:

- Approaches to Western Architectural History (ARTS 205)
- American Urbanism (SOCI 241)
- Environmental Sociology (SOCI 248)
- Seminar in Coal, Communities and Culture (SOCI 284)
- Sustainable Cities (ENVS 390)

Other relevant courses:

- Environmental Justice: Theory and Practice (ENVS 217)
- Land Arts in an Electronic Age (ARTS 093)
- Digital Art and Public Space: Performance and Transmission (TECH 160)
- Environmental Policy (ENVS 208)
- Energy and Society (ENVS 322)
- Applied Geographic Information Systems (GEOL 235)
- Systems Modeling (ENVS 340)
- Systems Ecology (ENVS 316)

Suggested research methods courses include:

- CAST 300
- ENVS 220
- ENVS 340
- POLT 205
- SOCI 301
- STAT 113/114

Water and Society

Water, the most fundamental resource necessary for life, has been responsible for biodiversity, extinctions, wealth, and war. The study of water and society can be approached from natural science, social science, humanities and the arts. Students pursuing this Area of Interest should develop a cross-disciplinary approach that builds links between technical realities, social needs, ethical considerations and the philosophical ties of humans to water. Depending on the pathway focus, double majors in a variety of disciplines, ranging from geology to creative writing to economics or policy may be appropriate.

Foundation courses might include:

- Rivers in American Literature (ENGL 141)
- Indigenous Peoples and Climate Change (ENVS 225)
- Systems Ecology (ENVS 316)
- Systems Modeling (ENVS 340)
- Structure and Reactivity in Chemistry (CHEM 101)
- Environmental Geology (GEOL 240)
- Earth Surface Processes (GEOL 212)
- Groundwater Hydrogeology (GEOL 242)
- Environmental Chemistry (CHEM 258)
- Environmental Ethics (PHIL 225)
- Systems Modeling (ENVS 340)
- Trace Analysis (CHEM 341)
- Natural Resource Economics (ECON 331)

Suggested research methods courses include:

- ENVS 220
- ENVS 316
- GEOL 235
- POLT 205
- STAT 113/114

Submitting Pathway Documents

Documents associated with the Curricular Pathway requirement as well as an indication of each student's status in completing a pathway are managed by advisors and ES majors using Blackboard. This part of the ES Blackboard site is managed in a fashion similar to Blackboard sites for individual courses; all ES faculty advisors essentially function as course instructors and ES majors as students in a course. Periodically the ES Administrative Assistant will transfer information regarding the status of each student from Blackboard into Banner so that the Office of the Registrar can track and report completion of pathway requirements in degree audits. The procedures for students and faculty are as follows:

1) Students submit all pathway documents by navigating to the ES Program Blackboard site and clicking on the button, "Submit Pathway Documents." This link opens a page with links that allow students to submit their Pathway Proposal, Capstone Proposal, and Pathway Report. To submit a document, students click on the appropriate document link, browse to the file that they have created, attach the file and then submit this file. Further student revisions to the documents can be uploaded using these same procedures. The Blackboard site thereby maintains a archive of all revisions uploaded. There is also a link on this page for students, "Check Your Pathway Status", that allows ES majors to see if required documents have been approved by their advisors (i.e. if they have successfully fulfilled each pathway requirement).

2) Faculty download, review, comment on and indicate approval for pathway documents following Blackboard procedures that are essentially the same as those used for managing and grading course assignments. Faculty members who advise ES majors have all been given the user status of "Assistant" on the ES Blackboard site, which provides the same access as Instructor designation for courses that they teach. This provides ES advisors access to all submitted pathway documents. Advisors wishing to access pathway documents for their advisees should: navigate to the ES Program Blackboard site; under "Control Panel" click "Evaluation" and then "Grade Center." The advisor can then scroll down to find advisees. Exclamation points below the columns indicate submitted pathway documents for a given student. Click on that exclamation point and choose to "View grade details", then "View attempt" to get to a link where the document can be downloaded. Once an advisor has determined that the document fulfills the requirement, the advisor should go to the main Grade Center view, click directly on the cell associated with the pathway document for the student (do not click on the double down arrow) and type "Approved" (or "Revise" if revisions are necessary) directly into the grade book. This text is what students will see when they log on to check their status.

3) Blackboard should always contain the most recent information on that status of each ES major’s pathway documents. The ES Program Administrative Assistant will periodically review this status and update Banner with this information. The AA can accomplish this transfer of information only if advisors are conscientious about entering “Approved” in the grade book when a student has successfully completed a pathway requirement. Since the pathway is now part of major requirements, the registrar will track the completion of the pathway proposal, capstone experience and pathway report such that the requirement will be noted as "MET" on the CAPP report. It will be tracked and marked as an event analogous to completion of writing proficiency.

4) Although it might be easier for students to directly email pathway documents to advisors, there are two reasons why it is important that Blackboard be used as a conduit for final submissions. First, if a student changes advisors, the pathway documents will be immediately accessible to the new advisor. Second, pathway documents are used as part of the curricular assessment process for ES, so it is important that these documents remain easily accessible to the chair and others involved in assessment process.
Your Statement of Goals and Intent and your Course Trajectory are both components of your Pathway Proposal; they should be submitted to Blackboard as a single MSWord document using this as a template. The final version of your proposal should be submitted to the ES site on Blackboard using the filename “Firstname.Lastname.PathwayProposal.doc.” Details on the procedure for submitting your Pathway Proposal and other pathway documents are included at the end of this document.

Statement of Goals and Intent
Use the questions below as a template for your pathway proposal. Include the headings and questions below and replace the prompting text within the brackets with text describing your pathway.

Area of Interest: [Insert name of one of the established Areas of Interest from the list in the curricular pathways document]

Pathway Title: [Insert a short title that summarizes the more specific topic or approach that you plan to pursue]

Approval to share: [“Yes” indicates that the ES program has your permission to share your document with other majors. “No” indicates that you prefer not to have your proposal shared. We ask because ES majors have requested that examples of pathways be shared.]

Questions:
Answer each question separately. Include the text of these questions above your answers.

1) Describe the coherent theme embodied in your proposed pathway and describe why and how you see this as important to your education. Describe the questions that your proposed pathway is designed to answer.

2) What are the key goals you hope to accomplish in terms of the knowledge, skills and the expertise you anticipate developing in the process of traversing your chosen pathway?

3) Describe how the pathway relates to your educational goals and future plans. How do you anticipate that your proposed pathway prepares you for life, work, and study during and beyond your time at Oberlin?

4) What course work do you anticipate will be most important to achieving your goals? Describe critical aspects of the course sequence you propose in your course trajectory.

5) What do you see as the most significant experiences outside of traditional course work (e.g. winter term, summer, study away, extracurricular experiences, etc.) and how do you see these contributing to completion of your pathway?

6) Describe what you anticipate serving as your capstone experience and how it will fulfill the goals of your proposed pathway.

Course Trajectory
List the names and numbers of courses that you have taken and intend to take that are related to your ES major during each semester. Be certain that the complete set of courses fulfills all courses on the ES Majors Checklist necessary for you to graduate. Distinguish between those courses that are related to your chosen pathway (mark with a P) and those that fulfill major requirements (mark with an R). If a course accomplishes both, mark it with both an R and a P. If you have a double major you may find it helpful to also indicate key courses for your second major.

First Year, First Semester (Year):

First Year, Second Semester (Year):

Second Year, First Semester (Year):

Second Year, Second Semester (Year):

Milestone: Students typically declare ES Major no later than this time (1st semester junior year if ES is 2nd major)

Third Year, First Semester (Year):

Milestone: Pathway proposal approved by advisor
Milestone: Capstone experience proposal

Third Year, Second Semester (Year):

Fourth Year, First Semester (Year):

Fourth Year, Second Semester (Year):
Milestone: Pathway Report due
Capstone Experience Proposal Template

Use this template to describe how you anticipate that your capstone experience will contribute to the goals you defined in your pathway proposal.

**Capstone Title:** [Insert a short title that concisely describes your proposed capstone experience]

**Approval to share:** [“Yes” indicates that the ES program has your permission to share your document with other majors. “No” indicates that you prefer not to have your proposal shared. We ask because ES majors have requested that examples be shared.]

**Questions:**

*Answer each question separately; include the text of these questions above your answers.*

1) Describe the work that you intend to serve as your capstone experience. If there are products (final projects, reports, etc.) associated with your capstone, describe these.

2) Describe new skills and knowledge that you hope to develop as part of your capstone experience. How do you anticipate that these will apply, integrate, and further develop what you have learned in the course trajectory you are completing as part of your ES major at Oberlin?

3) Describe how you anticipate that the capstone experience you propose will contribute to the goals you defined in your curricular pathway.

Pathway Report Template

This is your opportunity to reflect on the ways in which your chosen pathway has (and has not) achieved the goals and intent you specified in your pathway proposal. You should review your initial pathway proposal and capstone proposal before completing this report. You must discuss this report with your advisor and your advisor must notify the registrar of successful completion of the report. This is required for completion of the ES major. Once approved by your advisor, the final text document, including the course trajectory, should be posted to the appropriate section of the ES Blackboard site using the filename “Firstname.Lastname.PathwayReport.doc.”

**Area of Interest:** [Insert name of one of the established Areas of Interest from the list in the curricular pathways document]

**Pathway Title:** [Insert a short title that summarizes the more specific topic or approach that you plan to pursue]

**Approval to share:** [“Yes” indicates that the ES program has your permission to share your document with other majors. “No” indicates that you prefer not to have your proposal shared. We ask because ES majors have requested that examples be shared.]

**Questions:**

*Answer each question separately and include the text of these questions above your answers.*

1) In reflecting on your experience at Oberlin, to what extent did your pathway provide a coherent theme? What questions did you address and how do these relate to those you initially proposed?

2) Describe the extent to which you successfully realized the goals articulated in your pathway proposal with respect to developing knowledge, skills and expertise?

3) Describe the ways in which completion of a pathway aided or hindered achieving your educational goals at Oberlin. In what ways did your pathway prepare you for life, work and study during and beyond your time at Oberlin?

4) What course work proved to be most important to achieving the goals defined in your pathway?

5) What were the most significant experiences outside of traditional course work that you completed while a students at Oberlin (e.g. winter term, summer, study away, extracurricular experiences, etc.) and how did these contribute to completion of your pathway?

6) What were the most critical challenges you faced in the process of pursuing your pathway at Oberlin? Do you have any suggestions about ways the ES Program make this experience better for future students?

7) Describe your capstone experience. If there were products (final projects, reports, etc.) associated with your capstone, describe these.

8) Describe any new skills and knowledge that you developed as part of your capstone experience. How did these relate to (other) course work undertaken at Oberlin?

9) Describe how your capstone experience contributed to the goals you defined in your curricular pathway.

10) What challenges did you face in completing your capstone experience? Do you have suggestions that might help the ES program or others who might pursue a similar capstone experience?