Environmental Studies
Director: Elizabeth B. Safran
Administrative Specialist: Miranda Wood

Environmental studies situates environmental problems and solutions in a scholarly context and works alongside other academic disciplines to build a more livable world. The field crosses traditional disciplinary boundaries, as deeper understanding of environmental problems and solutions requires attention to a wide range of concepts and analytical methods that span the sciences and humanities.

The Environmental Studies Program benefits from the participation of many departments in the College of Arts and Sciences, as well as the School of Law (http://lclark.edu/law) and Graduate School of Education and Counseling (http://lclark.edu/graduate). We offer students opportunities for environmental research and engagement on campus, in nearby Tryon Creek State Park (http://oregonstateparks.org/park_144.php), the Portland metropolitan area, the greater Pacific Northwest, and in conjunction with Lewis & Clark’s Overseas and Off-Campus Programs (http://docs.lclark.edu/catalog/archive/2013-14/undergraduate/overseas). The Environmental Studies Program combines intellectual rigor and breadth with practical experience in a vibrant, transdisciplinary field of scholarly inquiry.

The educational objective of the Environmental Studies Program is to provide resources and cultivate an atmosphere whereby students (1) appreciate the intellectual and practical complexities of environmental problems and solutions, (2) master key concepts and methods of environmental analysis drawn from, and integrating, a broad range of disciplines, and (3) fuse this background knowledge and analytical ability with leadership and communication skills to successfully devise and implement creative, academically grounded solutions to environmental problems.

A major in environmental studies is appropriate for students who desire future employment in the environmental arena or who want a broad, systematic liberal arts background to support further scholarly study in related natural science, social science, and humanities fields.

Local and Overseas Research
In collaboration with campus and off-campus partners, the Environmental Studies Program is developing local and overseas sites for student and faculty research, as well as electronic information resources to support in-depth inquiry into environmental problems and solutions. Research may count toward a student’s concentration as ENVS 499 Independent Study. Please consult with Overseas and Off-Campus Programs (http://docs.lclark.edu/catalog/archive/2013-14/undergraduate/overseas) for details on overseas program destinations, and with the Environmental Studies Program for information on local or overseas research opportunities and application procedures.

Internships
Environmental studies majors are urged to complete one or more practical internships as part of their education. The Portland metropolitan area and the Pacific Northwest offer many opportunities for students to learn by working for federal agencies, environmental organizations, business, city government, and other entities. In addition, students have access to a nationwide database of internship opportunities. Majors pursue internships as a partnership between the Environmental Studies Program, the Center for Career and Community Engagement (http://lclark.edu/college/student_life/career_and_community), and the sponsoring entity, with the goal of providing long-term professional and career development skills to participating students, as well as practical application of the concepts and skills acquired during academic studies.

The Major Program
The major includes core courses in environmental studies, breadth courses in the natural sciences, social sciences, and humanities, and a concentration or second major. In order to build an intellectually coherent understanding of environmental problems and solutions, core courses are designed to weave together concepts and skills drawn from breadth course fields. The core sequence starts with a broad introductory course followed by development of quantitative and qualitative analytical skills and advanced treatment of environmental problems and solutions. It culminates with a senior thesis representing original scholarly research on a topic of practical relevance. Breadth courses in fields including biology, geology, economics, sociology, international affairs, history, and philosophy provide important discipline-specific tools for environmental analysis. As preparation for research culminating in the senior thesis, students choose courses defining a concentration or complete a second major in order to gain greater depth in one particular subfield of environmental studies.

Although not required for the major, all environmental studies majors are strongly urged to complete MATH 131 Calculus I.

Major Requirements
A minimum of 60 semester credits, including the following (with recommended timing as noted, although the schedule may be adjusted to account for overseas study, which all majors are urged to pursue in conjunction with a number of environmental research opportunities):

- ENVS 160 Introduction to Environmental Studies (ideally taken during the first year)
- ENVS 220 Environmental Analysis (ideally taken during the sophomore year; must take ENVS 160 first)
- ENVS 330 Situating Environmental Problems and Solutions (ideally taken during the junior year; must take ENVS 160 and ENVS 220 first)
• ENVS 499T Independent Study: Thesis Preparation
• ENVS 400 Senior Seminar
• Any two of the following natural sciences courses:
  BIO 141 Investigations in Ecology and Environmental Science
  CHEM 110 General Chemistry I
  GEOL 150 Environmental Geology
  or GEOL 170 Climate Science
  (Either GEOL 150 or 170 can be used, but not both)
• ECON 260 Environmental and Natural Resource Economics
• Any of the following social sciences courses:
  IA 257 Global Resource Dilemmas
  SOAN 249 The Political Economy of Food
  SOAN 305 Environmental Sociology
• PHIL 215 Philosophy and the Environment or HIST 261 Global Environmental History
• One additional 4-semester-credit humanities elective approved in conjunction with the concentration proposal (see next item); PHIL 215 or HIST 261 automatically approved when not already used to fulfill above requirement.
• Sixteen semester credits in a student-designed concentration, which may have a natural science, social science, and/or humanities focus and will be the basis for the senior thesis. At least two courses must be upper division. The concentration must be approved as part of declaring the major, generally during the sophomore year. Please contact the Environmental Studies Program for details. Students pursuing a second major at Lewis & Clark do not require a concentration, but will be expected to complete a senior thesis applying their second field to environmental studies.

All Lewis & Clark courses intended to fulfill environmental studies major requirements must be taken for a letter grade, with the exception of ENVS 499T, which is taken credit-no credit only.

Minor Requirements
A minimum of 25 semester credits (six courses), distributed as follows:
• ENVS 160 Introduction to Environmental Studies
• ENVS 220 Environmental Analysis
• ENVS 330 Situating Environmental Problems and Solutions
• Any three of the following environmental studies breadth courses:
  BIO 141 Investigations in Ecology and Environmental Science
  CHEM 110 General Chemistry I
  ECON 260 Environmental and Natural Resource Economics
  GEOL 150 Environmental Geology
  GEOL 170 Climate Science
  HIST 261 Global Environmental History
  IA 257 Global Resource Dilemmas
  PHIL 215 Philosophy and the Environment
  SOAN 249 The Political Economy of Food
  SOAN 305 Environmental Sociology

All Lewis & Clark courses intended to fulfill environmental studies minor requirements must be taken for a letter grade.

Honors
Students who distinguish themselves academically (GPA of 3.500 in the major and overall) are invited to apply to the honors program. Honors candidates work with faculty advisors to develop proposals for research theses, which must be approved by a committee of three environmental studies faculty members. Generally, the thesis will be completed as a part of ENVS 400 Senior Seminar. Each student prepares a written thesis in draft form, which must then be circulated to the committee no later than the ninth week of the student’s final semester. After the student completes the final version of the thesis and makes a formal oral presentation, the faculty determine whether to grant honors upon graduation.

Faculty
Jessica M. Kleiss. Assistant professor of environmental studies. Oceanography, interface between the atmosphere and the ocean. Ph.D. 2009 Scripps Institution of Oceanography, University of California
at San Diego. B.S. 2000 Massachusetts Institute of Technology.


Tod Sloan. Graduate professor of counseling psychology.

ENVS 160 Introduction to Environmental Studies
Faculty: Environmental Studies Faculty.
Content: Scholarly perspectives on environmental problems and solutions, integrating concepts and analytical skills drawn from the natural sciences, social sciences, and humanities. Foundation for all subsequent courses in the environmental studies major. Lectures, faculty and guest presentations, regular online assignments, individual and group research projects. Prerequisites: BIO 141 or GEOL 150 or CHEM 110 or ECON 100 or IA 100 or SOAN 100 or SOAN 110. Enrollment limited to first- and second-year students except by consent of instructor. Usually offered: Annually, spring semester. Semester credits: 4.

ENVS 200 Situating the Global Environment
Faculty: Environmental Studies Faculty.
Content: Introduction to situated perspective on environmental problems and solutions, including a range of international and overseas program-specific cases. Development of web-based social learning skills to document and share situated research. Regular reading and summary discussions, lectures, fieldwork, online synthesis postings, and final report. Taught in conjunction with an ENVS summer overseas program. Prerequisites: ENVS 160 or instructor permission. Restrictions: Sophomore standing and acceptance into an overseas program. Usually offered: Annually, summer only. Semester credits: 4.

ENVS 220 Environmental Analysis
Faculty: Environmental Studies Faculty.
Content: Development of research and analytical skills in environmental studies as preparation for upper-division work by majors and minors. Emphasis on formulation, practice, and communication of research. Skills span full range of allied fields, including descriptive and inferential statistics, geographic information systems, survey and interview techniques, qualitative data analysis, and bibliographic research. Lectures, individual and small-group assignments, and course project. Accompanying lab provides opportunity for students to build analytical skills via real-world research. Prerequisites: ENVS 160 or consent of instructor. Enrollment preference given to departmental majors fulfilling degree requirements. Corequisites: ENVS 220L. Restrictions: Sophomore standing required, unless section number is preceded by an "F." Usually offered: Annually, fall semester. Semester credits: 5.

ENVS 244 Practicum
Faculty: Environmental Studies Faculty.
Content: Nonclassroom learning experience combining theoretical concepts and skills learned in the classroom with practical work in an on-campus or off-campus setting. Additional readings and written assignments required. Arrangements for the practicum should be made during the semester prior to enrollment. May be repeated for credit. Prerequisites: At least two of ENVS 160, ENVS 220, or ENVS 330. Restrictions: Sophomore standing and consent required. Usually offered: Annually, fall and spring semester. Semester credits: 1-4.
ENVS 330 Situating Environmental Problems and Solutions
Faculty: Environmental Studies Faculty.
Content: Advanced analysis of environmental problems and solutions, situating them in time, space, and biophysical/human context to provide greater appreciation for their complexity as well as to help devise successful responses. Development of interdisciplinary conceptual and analytical skills via inclusion and integration of topics including environmental change, biophysical and human drivers, related social movements, and environmental politics and policy. Lectures, regular assignments, individual and team research projects, and field trips.
Prerequisites: ENVS 160, ENVS 220.
Restrictions: Junior standing or consent required.
Usually offered: Annually, spring semester.
Semester credits: 4.

ENVS 345 Sustainability Internship Seminar
Faculty: ENVS and/or Law School Faculty.
Content: Provides both CAS and law students with an opportunity to work on issues related to sustainability in one of several available placements in the local legal, government, or nonprofit community, and to reassess the concepts and practice of sustainability in light of these experiences. Law students are placed in legal settings approved by the instructor; CAS students are similarly placed in a setting appropriate to their qualifications and interests. The instructor meets regularly with all students in a two-hour class to discuss issues related to defining and fostering sustainability through law and policy, including discussion of selected issues related to the students’ placements. CAS students are expected to work in their placements approximately eight hours per week. Enrollment in this seminar will be limited; students will not be compensated for work performed in connection with an internship placement.
Prerequisites: None.
Restrictions: Junior standing required.
Usually offered: Annually, spring semester.
Semester credits: 4.

ENVS 350 Environmental Theory
Faculty: Proctor.
Content: Advanced exploration of major theoretical assumptions underlying environmental studies, including the nature of environment, environmental knowledge (including role of sciences and humanities), and environmental problems and solutions. Intensive reading and writing, class discussions, and project-based application of theory to contemporary topics.
Prerequisites: ENVS 160, ENVS 220.
Restrictions: Sophomore standing required.
Usually offered: Alternate Years, spring semester.
Semester credits: 4.

ENVS 400 Senior Seminar
Faculty: Environmental Studies Faculty.
Content: An advanced, integrative keystone seminar involving primary research for all senior environmental studies majors. Research theses are based on each student’s concentration within the major and include both oral and written components. Students are encouraged to start planning their theses through meetings with the instructor during the previous semester or, preferably, even earlier. Students should have completed all other environmental studies core courses prior to taking this course.
Prerequisites: ENVS 330, ENVS 499T.
Restrictions: Senior standing or consent required.
Usually offered: Annually, spring semester.
Semester credits: 4.

ENVS 460 Topics in Environmental Law and Policy
Faculty: Law Faculty.
Content: Introduction to issues in environmental law and policy. Taught by environmental and natural resources law faculty of Lewis Clark Law School, the course covers major areas in environmental law. Topics vary and may include water law, the Endangered Species Act, hazardous waste law, environmental justice, environmental law enforcement, the World Trade Organization, public lands law, the Clean Air Act, and the National Environmental Policy Act. Panels discuss careers in law and study of law. A unique opportunity for students interested in careers in environmental law and policy.
Prerequisites: ENVS 160.
Restrictions: Junior standing or consent required.
Usually offered: Alternate Years, fall semester.
Semester credits: 3.

ENVS 490 Topics in Environmental Studies
Faculty: Environmental Studies Faculty.
Content: Application of concepts and skills from ENVS 160 and ENVS 220 to the understanding of specific environmental issues. Potential topics include biodiversity, climate change, energy, environmental justice, international agreements, land use, natural resource depletion, pollution, sustainability, transportation, and urban sprawl. May be taken twice for credit with change of topic.
Prerequisites: ENVS 160 and ENVS 220, or consent of instructor.
Restrictions: Sophomore standing required.
Usually offered: Alternate Years.
Semester credits: 4.
ENVS 499 Independent Study
Faculty: Environmental Studies Faculty.
Content: Opportunity for the well-prepared student to design and pursue a substantive course of independent learning on an advanced level. Details determined by the student and the supervising instructor. Students should have completed ENVS 160 and ENVS 220 prior to taking this course. May be repeated for credit.
Prerequisites: ENVS 160, ENVS 220.
Restrictions: Sophomore standing and consent required.
Usually offered: Annually, fall and spring semester.
Semester credits: 1-4.

ENVS 499T Independent Study: Thesis Preparation
Faculty: Environmental Studies Faculty.
Content: Opportunity for the environmental studies major to finalize thesis research topic and thesis outline prior to taking ENVS 400. Details determined by the student and the supervising instructor. Students should have completed all core courses for the major (except ENVS 400) prior to taking this course. Credit-no Credit.
Prerequisites: ENVS 160, ENVS 220, ENVS 330.
Restrictions: Junior standing required.
Usually offered: Annually, fall and spring semester.
Semester credits: 1.