Environmental Studies
Course Offerings Fall 2021

ENVR 150  INTRODUCTION TO ENVIRONMENTAL STUDIES  (4)
MWF  9:10 am—10:05 am    PENGL 225    Grosse, C
MWF  1:50 pm—3:10 pm    PENGL 225    Knight, T

Interdisciplinary introduction to environmental studies. Case-based investigation of environmental issues combining perspectives from the social sciences, natural sciences, and humanities. Topics will vary but may include such subjects as endangered species, air/water pollution, environmental justice/racism, animal rights, global warming, ecotourism, agriculture, nature writing, campus ecology, and others.

ENVR 175  EARTH SYSTEMS SCIENCE  (NS, NW, QR) (4)
MWF  10:20 am—11:15 am    PENGL 225    Storlien, J
Laboratory  M  12:40 pm—3:40 pm    PENGL 206    Storlien, J
Laboratory  R  12:45 pm—3:45 pm    PENGL 206    Storlien, J

An interdisciplinary introduction to the science underlying environmental issues. This course will focus on earth systems science, providing a basic understanding of how the earth’s hydrosphere, lithosphere, atmosphere and biosphere work and how they interact.

ENVR 275  HUMANS AND THE ENVIRONMENT  (NS) (4)
TR  9:35 am—10:55 am    PENGL 225    Knight, T
Laboratory  T  12:45 pm—3:45 pm    PENGL 206    Knight, T

An interdisciplinary scientific exploration of environmental issues through case studies. Specific case studies will be chosen by the instructor, but will typically center around the broad topics of population, climate change, food and agriculture, biodiversity, pollution and energy.

ENVR 279A  ENVIRONMENTAL METHODS & ANALYSIS  (SS, SW, thematic focus-truth) (4)
MWF  11:30 am—12:25 pm    PENGL 236    Knight, T

This course serves as an introduction to the analytical tools and metrics of environmental studies, providing students with quantitative and qualitative methodological skills germane to environmental problem solving that can be applied in upper division courses and in their own research projects. Emphases will include basic quantitative literacy, units of measurement commonly used in environmental fields, estimation, basic applied statistical analysis, cost-benefit and other economic metrics, textual analysis of survey and interview data, and data visualization through construction of graphics and maps. Students will also be guided through the process of collecting both primary and secondary data. Students will learn to apply these methods and to critique the use of similar methods by the media, in marketing campaigns and by other researchers.
ENV 300I ENVIRONMENTAL ANTHROPOLOGY (4)

W  6:15 pm—9:15 pm SIMONS 360 Sheehan, M

This course examines the relationships between human cultures and the environments they inhabit. We will engage with the ways in which environments are collusions of human knowledge, perspective, histories, and economic and other cultural systems. Many of the course texts grapple with environmental management systems throughout the world, and ways that people plan for, participate in, subvert, and are affected by environmental management schemes. Furthermore, this course also emphasizes the ways in which people shape knowledge about the environment and environmental management throughout historical vantages as well as Western science, particularly of conservation biology and ecology. Prerequisite: Any one of the following: SOCI 111 or 121, PSYC 111, ECON 111, POLS 111 or 121, PCST 111, or Permission of Instructor.

ENV 300T SUSTAINABLE AGRICULTURE SCIENCE (4)

TR  9:35 am—10:55 am PENGL 210 Storlien, J
Laboratory T  12:45 pm—3:45 pm PENGL 210 Storlien, J

Managing agricultural landscapes to provide the world with sustainable food, fiber, and fuel while conserving the environment and addressing climate change is a grand challenge of 21st century agriculture. This course examines agroecosystems as complex adaptive systems characterized by interactions and feedbacks among organisms, the atmosphere, climate, and the cycling of elements at local to global scales. Key elemental cycles of carbon and nitrogen and how human activities are affecting these cycles, and creating environmental challenges will be emphasized. Soil and crop management practices and resulting interactions between soil, water, organisms, and organic and chemical inputs form the basis for discussions on diverse cropping systems, soil health, water quality and quantity, bioenergy, greenhouse gases, and sustainability. Laboratory experiences will involve local field studies and a student-designed experiment to further understanding of human impacts on drivers of global climate change.

ENVR 300Z OUTDOOR ADVENTURE EDUCATION & LEADERSHIP (2)

R  12:45 pm—3:45 pm PENGL 225 Rauch, K

This course explores the foundational theory, pedagogies, and history of Outdoor Adventure Education (OAE) for children and adults. Utilizing a variety of adventure-based activities (e.g. rock climbing, backpacking, canoeing), students will apply OAE concepts to curriculum design, instruction, and leadership development. Classroom instruction in theory will be complimented by practica that will develop applied skills in adventure activities along with the associated facilitation techniques, risk assessments, and group management skills necessary to conduct effective OAE lessons. This course will be a combination of classroom lecture and discussion along with adventure-based experiential learning occurring mostly outdoors. All students interested in outdoor recreation, environmental education, work with youth and/or adult programs and camps, natural resource management, team building, and education pedagogies are encouraged to enroll regard-less of major or minor. Notes: An optional weekend workshop leading to Wilderness First Responder and CPR certification, which is often needed for employment in the field, will be offered in spring. This 2cr course may be combined with other credits to fulfil elective credits in the ENVR major or minor.
ENVR 327 GENDER AND ENVIRONMENT (ES, CS) (4)
MWF 10:20-11:15am PENGL 225 Grosse, C
This course explores the links between gender, women, and environments, with an emphasis on the interconnections between environments and the workings of power that shape gender-based inequality, resistance, and strategies for social change. Through reading, discussion, documentary films, and research projects, we will explore how gender inequalities and norms of femininity and masculinity shape and are shaped by environments. The course will focus on local (U.S.) and global climate change; women’s leadership in the environmental movement and community resilience; development; gendered perceptions of environmental risk; queer perspectives on environmental issues; how gendered divisions of labor (particularly care of children and elderly) affect environmental experiences; sustainable agriculture and redistribution of global resources; the effects of globalization and militarism on women and the environment; social constructions of gender and science; and the relationship between gender and environmental policy-making, inequalities, and health. Sophomore standing encouraged.

ENVR 303 CLIMATE ACTION WORKSHOP (2)
T 11:10 am—12:30 pm PENGL 212 Grosse, C
This course involves exploration of climate policy and action at the national, regional, and local level. Meeting once per week in the fall semester, students will learn about climate change and its effects, policies, and technologies to address climate change, and debates over taking action, focused on the national and local level. Students will gain hands-on organizing skills through planning an event around climate justice, interview climate justice stakeholders in the MN region, and engage in solidarity work with MN-based climate justice organizations, including attendance at local events. This course can be combined with ENVR 305: Global Climate Policy to create a 4-credit course. Sophomore standing required. No course pre-requisites. Offered annually.

ENVR 305 GLOBAL CLIMATE POLICY (SS, SW) (2)
R 11:10 am—12:30 pm PENGL 212 Grosse, C
This course involves preparation for, research in support of, and attendance at the United Nations Framework Convention on Climate Change (UNFCCC) annual Conference of Parties (COP). Meeting once per week in the fall semester, students will learn about climate change and its effects, policies and technologies to address climate change, and debates over taking action, all at the global level. Students will also learn about the Intergovernmental Panel on Climate Change, and the UNFCCC, in preparation for attending the conference. Each student will focus on one aspect of climate change, writing a research paper that includes both preliminary research before the conference then primary research at the conference itself, attending sessions devoted to that issue and interviewing stakeholders. Participants are required to attend the COP during the semester they take this course. Enrollment is by permission of instructor only. Applications for this course are accepted each spring semester. Students accepted into the course will be enrolled in the course by the instructor. This course can be combined with ENVR 303: Local Climate Action Workshop to create a four-credit course. Sophomore standing required. No course prerequisites. Offered annually. *If COVID restrictions prevent travel, the course will continue as scheduled as a COP simulation.

ENVR 305 GLOBAL CLIMATE POLICY (SS, SW) (2)
R 11:10 am—12:30 pm PENGL 212 Grosse, C
This course involves preparation for, research in support of, and attendance at the United Nations Framework Convention on Climate Change (UNFCCC) annual Conference of Parties (COP). Meeting once per week in the fall semester, students will learn about climate change and its effects, policies and technologies to address climate change, and debates over taking action, all at the global level. Students will also learn about the Intergovernmental Panel on Climate Change, and the UNFCCC, in preparation for attending the conference. Each student will focus on one aspect of climate change, writing a research paper that includes both preliminary research before the conference then primary research at the conference itself, attending sessions devoted to that issue and interviewing stakeholders. Participants are required to attend the COP during the semester they take this course. Enrollment is by permission of instructor only. Applications for this course are accepted each spring semester. Students accepted into the course will be enrolled in the course by the instructor. This course can be combined with ENVR 303: Local Climate Action Workshop to create a four-credit course. Sophomore standing required. No course prerequisites. Offered annually. *If COVID restrictions prevent travel, the course will continue as scheduled as a COP simulation.
ENVR 320 **RESEARCH COLLOQUIUM** (4)
*MW*  1:50pm—3:10pm    **PENGL 232**    *Lyndgaard, K*
In depth, interdisciplinary study of a single topic in environmental studies. By design the course will provide both depth of exposure in a topic and methodological instruction and application of research skills in the field, as preparation for the research requirements of other upper division ENVR courses and for the application in post-collegiate career settings. Topics will vary each semester, but skills covered will include group discussion, formal oral presentation, poster design and presentation, secondary literature analysis, research design, collaborative project design and implementation, and written presentation of research results. This course is intended for junior/senior Environmental Studies majors and must be taken before enrolling in the ENVR 395: Research Seminar capstone.

ENVR 360 **US ENVIRONMENTAL HISTORY** (HM) (4)
*MWF*  10:20 am—11:15 am    **PENGL 212**    *Larson, D*
Environmental history is the study of the relationship between humans and nature over time. This course examines the changing American understanding of nature in the 19th and 20th centuries with particular attention to the development of public policies toward natural resources and wildlife, the emergence of a new set of values recognizing non-utilitarian values in nature, and to the evolution of the conservation and environmental movements. Intellectual, political, economic, scientific, and social evidence will all be examined in the process of placing nature back into the human history of North America. This course is suitable for students of any major, including those who have not taken a previous history course.

ENVR 395 **RESEARCH SEMINAR** (4)
*MW*  1:50pm—3:10pm    **PENGL 238**    *Larson, D*
Capstone seminar for majors/minors; intensive research project and formal presentation in collaborative setting. Prerequisite: senior standing or permission of instructor.

ENVR 397 **INTERNSHIP** (1 credit minimum)
Supervised career exploration which promotes the integration of theory with practice. An opportunity to apply skills under direct supervision in an approved setting. Prerequisites: approval of the department chair and a faculty moderator; completion of the pre-internship seminar.
Cross-Listed ENVR Courses

PHIL 322 ENVIRONMENTAL ETHICS (ES) (4)

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<td>MWF</td>
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<td>QUAD 343</td>
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<tr>
<td>MWF</td>
<td>10:20 am—11:15 am</td>
<td>QUAD 353</td>
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This course investigates a variety of ethical issues that arise from consideration of the relation between humans and the non-human natural world (i.e., the environment, animals, land, ecosystems, wilderness areas). This course will introduce students to the basic concepts of environmental ethics, to specific ethical issues associated with environmental policy, and to philosophical theorizing about the environment.

Non-ENVR Courses of Interest

BIOL 337 AQUATIC ECOLOGY (4)

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<tr>
<td>TR</td>
<td>11:10am — 12:30pm</td>
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<td>Lamberts, W</td>
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<tr>
<td>Laboratory</td>
<td>12:45pm—3:35pm</td>
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An exploration of the ecology of lakes, streams, wetlands and other aquatic ecosystems. Topics include lake ontogeny, physical limnology, ecological interactions in lakes and streams and lake management. Laboratories take place on campus lakes, on shore and in the lab. BIOL 202 or ENVR 175 and 275 prerequisites.