ENVIRONMENTAL STUDIES

Department website (https://www.uwp.edu/learn/departments/environmentalstudies/)

College: College of Natural & Health Sciences

Student Organizations/Clubs:

BIOS Club, Geosciences Club, Geography Club, Parkside Environmental Club.

Career Possibilities:

Environmental consulting, ecology, environmental law and law enforcement, environmental restoration, environmental education, farming, forestry, journalism, land-use planning, natural resource management, science teaching, sustainable management, wetlands management, wildlife conservation.

Program Overview

The environmental studies program provides a learning environment that prepares students to understand and respond to local, regional, and global environmental challenges. The rigorous interdisciplinary curriculum fosters an understanding of the complexity of humans' relationship with nature and an appreciation of humankind's dependency on functioning ecosystems for survival. Through course work, research, and community engagement, the environmental studies faculty create an environment for students that cultivates independent thinking, creative problem solving, and effective communication skills. Environmental studies graduates are well prepared for a diversity of careers or graduate studies in environmental sciences, management, consulting or advocacy through a unique combination of course work and practical experience.

Academic Plan: Students wishing to complete a major in environmental studies must complete all the listed courses within the core of the environmental studies major. In addition, each student must complete at least one concentration listed below. Students who complete specific concentrations within the environmental studies major might qualify to receive a minor from the department whose classes make up the majority of the concentration (i.e. Students who complete the environmental geology concentration have met all the academic requirements for a minor in geosciences).

1. A common core set of classes
    a. These classes are the primary pre-requisites for nearly all the courses that will be listed within the concentrations
    b. These classes will also provide a solid amount of diversity and exposure to ENVS students within the various concentrations in the ENVS major
2. Concentrations with similar thematic courses
    a. Six separate concentrations
        i. Environmental Biology
        ii. Environmental Chemistry
        iii. Environmental Geography
        iv. Environmental Geology
        v. Environmental Policy and Society
        vi. General Environmental Studies

Note: The completion of this major will not satisfy all of the graduation requirements within the University (i.e. Thirty-six (36) credits of 300 level or higher coursework). It is the student's responsibility with consultation with the advisors for this program to ensure that both their major requirements and graduation requirements are satisfied.

Programs Offered

- Environmental Studies Major (BS) (https://catalog.uwp.edu/programs/environmental-studies/environmental-studies-major/)
- Environmental Studies Minor (https://catalog.uwp.edu/programs/environmental-studies/environmental-studies-minor/)
- Freshwater Resources Minor (https://catalog.uwp.edu/programs/environmental-studies/freshwater-resources-minor/)
- Freshwater Resources Certificate (https://catalog.uwp.edu/programs/environmental-studies/freshwater-resources-certificate/)

Environmental Studies Major Concentrations

- Environmental Biology
- Environmental Chemistry
- Environmental Geography
- Environmental Geology
- Environmental Policy and Society
- General Environmental Studies

Courses in Environmental Studies

ENVS 101 | Introduction to Environmental Studies | 3 cr
Examines interactions between earth system processes and humans including geologic hazards, water quality/quantity, pollution, land use, energy and mineral resources. Addresses impacts on environmental justice, economic development and policy. Uses a multidisciplinary, environmental studies approach to evaluate the conditions and human values conducive to environmental quality.
Prerequisites: None.
Offered: Fall, Spring, Summer.
Meets: Natural Science: ENVS, Natural Science: ENVS, Natural Science: ENVS, Natural Science: ENVS, Natural Science: ENVS

ENVS 102 | Chemistry of the Environment | 3 cr
Covers chemistry of the environment in three major areas: Earth's atmosphere, hydrosphere, and terrestrial environment. Focuses on key environmental issues, their origins, understanding and alleviation.
Prerequisites: None.
Offered: Spring.

ENVS 109 | Fundamentals of Climate Change | 3 cr
Surveys the current state of climate science including Earth's energy budget, the atmosphere, the greenhouse effect, ocean circulation, climate feedbacks, climate modeling and Earth's past climate. Also considers uncertainty in projections of future climate and solutions involving carbon sequestration, carbon-trade markets and energy efficiency. Three hour lecture.
Prerequisites: None.
Offered: Fall.
Meets: Natural Science: ENVS, Natural Science: ENVS, Natural Science: ENVS, Natural Science: ENVS, Natural Science: ENVS

ENVS 201 | Laboratory Experience in Environmental Studies | 3 cr
Provides laboratory experience in assessing, measuring, analyzing and monitoring environmental problems. Experiments may include measurements of environmental pollutants, use of instruments to detect environmental contaminants, and collection and sampling for water, soil and air analysis.
Prerequisites: ENVS 102.
Offered: Fall.

ENVS 290 | Special Topics in Environmental Science | 1-4 cr
Special topics in environmental studies will be examined.
Prerequisites: Consent of instructor.
Offered: Occasionally.

ENVS 335 | Energy | 4 cr
Various forms of energy and related topics are discussed from a vigorous point of view. These include mechanical energy; chemical energy, fossil fuels, and fuel cells; thermal energy and the laws of thermodynamics; electrical energy; and nuclear energy. Environmental impacts of each type of energy as well as alternative energy sources are also discussed. Three hour lecture and one hour discussion.
Prerequisites: MATH 111 and PHYS 101 or consent of instructor.
Offered: Spring.

ENVS 336 | Environmental Justice | 3 cr
Evaluates unsolved questions regarding themes of social inequities and environmental contamination. Includes topics such as industrial zoning, brownfield development, urban agriculture, air quality and toxic waste processing. Three hour lecture.
Prerequisites: ENVS 101 or BIOS 104.
Offered: Fall.

ENVS 390 | Special Topics in Environmental Science | 1-4 cr
Special topics in environmental studies will be examined.
Prerequisites: Consent of instructor.
Offered: Occasionally.

ENVS 490 | Special Topics in Environmental Science | 1-4 cr
Special topics in environmental studies will be examined.
Prerequisites: Consent of instructor.
Offered: Occasionally.

ENVS 494 | Internship/Fieldwork | 1-3 cr
Provides students with learning experiences within professional fields that are related to their career goals; such as business operations, professional competencies and conduct, and overall work environment. Requires placement approval by Environmental Studies Director. May be repeated for credit.
Prerequisites: Sophomore standing or above and Instructor, Director approval.
Offered: Fall, Spring, Summer.

ENVS 495 | Environmental Studies Seminar | 1 cr
Explores major environmental issues from a multidisciplinary perspective.
Prerequisites: Junior or senior standing; environmental studies major.
Offered: Spring.

ENVS 499 | Independent Study | 1-3 cr
An independent project carried out under the supervision of a member of the environmental studies faculty. Up to 3 credits may count as elective credit toward the minor.
Prerequisites: Consent of instructor and director.
Offered: Fall, Spring, Summer.