

ENVIRONMENTAL SCIENCES

Environmental Sciences

Environmental sciences consists of curricula that foster interdisciplinary education for students seeking to better understand earth systems. The undergraduate curriculum leads to the BS degree in Environmental Sciences and requires students to complete courses that develop a broad base of knowledge in basic science disciplines, social sciences, and an area of specialization. A minor in environmental sciences is also available for those undergraduate students completing their degrees in other fields. The theme of the Environmental Sciences Program is central to the mission of OSU and reflects the strengths of OSU and other agencies and institutions in Corvallis and throughout the state of Oregon. The BS degree in Environmental Sciences provides excellent training for careers with agencies responsible for environmental protection and natural resource use, consulting firms, and those seeking opportunities for graduate studies.

Graduate Programs

Major

- Environmental Sciences (<http://catalog.oregonstate.edu/college-departments/graduate-school/environmental-sciences/environmental-sciences-ma-ms-phd-psm>)

Minor

- Environmental Sciences (<http://catalog.oregonstate.edu/college-departments/graduate-school/environmental-sciences/environmental-sciences-graduate-minor>)

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Environmental Sciences

ENSC 101. ENVIRONMENTAL SCIENCES ORIENTATION. (1 Credit)

Introduction to the Environmental Sciences Program and related professional and educational opportunities. Recommended for all freshman and first-year transfer environmental sciences majors, but open to all students interested in learning about career options in the environmental sciences. Graded P/N.

ENSC 399. SPECIAL TOPICS. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 401. RESEARCH AND SCHOLARSHIP. (1-16 Credits)

This course is repeatable for 24 credits.

ENSC 402. INDEPENDENT STUDIES. (1-16 Credits)

This course is repeatable for 24 credits.

ENSC 403. THESIS. (1-16 Credits)

This course is repeatable for 24 credits.

ENSC 405. READING AND CONFERENCE. (1-12 Credits)

This course is repeatable for 16 credits.

ENSC 406. PROJECTS. (1-16 Credits)

This course is repeatable for 24 credits.

ENSC 407. SEMINAR. (1-16 Credits)

Equivalent to: ENSC 407H

This course is repeatable for 12 credits.

ENSC 407H. SEMINAR. (1-16 Credits)

Attributes: HNRS – Honors Course Designator

Equivalent to: ENSC 407

This course is repeatable for 12 credits.

ENSC 408. WORKSHOP. (1-16 Credits)

This course is repeatable for 12 credits.

ENSC 410. ENVIRONMENTAL SCIENCE INTERNSHIP. (1-12 Credits)

Supervised practical experience working with professionals at selected cooperating institutions, agencies, laboratories, or companies. Graded P/N.

This course is repeatable for 48 credits.

ENSC 479. *^ENVIRONMENTAL CASE STUDIES. (3 Credits)

Improves students' ability to ask questions, gather and synthesize information, and communicate ideas on environmental topics. Instruction and information necessary for the course is entirely Web based. (Bacc Core Course) (Writing Intensive Course)

Attributes: CSST – Core, Synthesis, Science/Technology/Society; CWIC – Core, Skills, WIC

Recommended: One year of college biology or chemistry

ENSC 499. SPECIAL TOPICS. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 501. RESEARCH AND SCHOLARSHIP. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 503. THESIS. (1-16 Credits)

PREREQ: Departmental approval required.

This course is repeatable for 999 credits.

ENSC 505. READING AND CONFERENCE. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 506. PROJECTS. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 507. SEMINAR. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 508. WORKSHOP. (1-16 Credits)

PREREQ: Departmental approval required.

This course is repeatable for 16 credits.

ENSC 510. INTERNSHIP. (1-12 Credits)

This course is repeatable for 12 credits.

ENSC 515. ENVIRONMENTAL PERSPECTIVES AND METHODS. (3 Credits)

Unique perspective or method each quarter. Possibilities include: remote sensing, modeling over a range of scales in time, space, and levels of system organization; and risk analysis.

ENSC 520. ENVIRONMENTAL ANALYSIS. (3 Credits)

Develop analytical thinking, explore analytical approaches, enhance writing skills, and gain experience in oral communication about environmental issues.

ENSC 541. ENVIRONMENTAL SCIENCE, SCIENTISTS, AND SOUND DECISIONS. (4 Credits)

Focusing on analyzing the role of environmental science and scientists in decision-making in a variety of professional contexts at various scales (local through global) using a case-study approach and proposing a draft model process.

ENSC 542. MANAGEMENT OPPORTUNITIES IN THE NITROGEN CASCADE. (4 Credits)

Analyzes the environmental science behind reducing excess reactive nitrogen entering the environment through our provision of food, power, and transportation for future populations. Identifies emerging complementary suites of interventions and legislation innovating management practices at local, regional, national and international scales.

ENSC 543. EXCELLING IN AN INTERDISCIPLINARY TEAM. (4 Credits)

Identifying, examining and practicing the top skills, attributes and leadership dynamics involved in working in interdisciplinary environmental science teams in industry, government, and research organizations, informed by experienced experts across these areas.

ENSC 555X. FOOD FOR CHANGE. (3 Credits)

Focusing on traditional regional recipes, explore and document how global change has affected food production and demand until today and how projected climate change will affect it in the future by analyzing the ingredient lists. Focus on one recipe/ingredient, find maps of past/current crop ranges, document changes, and identify possible replacement ingredients projecting future culinary solutions.

Recommended: GEOG 472

ENSC 599. SELECTED TOPICS. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 601. RESEARCH AND SCHOLARSHIP. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 603. THESIS. (1-16 Credits)

This course is repeatable for 999 credits.

ENSC 605. READING AND CONFERENCE. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 606. PROJECTS. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 607. SEMINAR. (1-16 Credits)

This course is repeatable for 16 credits.

ENSC 699. SELECTED TOPICS. (1-16 Credits)

This course is repeatable for 16 credits.