Environmental Science Courses

Courses

ESCI 1101. Environmental Sci. Lab.
Environmental Science Laboratory (0-3) Concurrent enrollment in ESCI 1301 suggested. Enrollment in ESCI 1101 required for environmental science majors.
1 Credit Hour
3 Total Contact Hour
3 Lab Hour
0 Lecture Hour
0 Other Hour

ESCI 1102. Non-major Lab for ESCI 1301.
Non-major Lab for ESCI 1301 (0-3). Equivalent Course: ESCI 1101.
1 Credit Hour
3 Total Contact Hour
3 Lab Hour
0 Lecture Hour
0 Other Hour

ESCI 1202. Intro to Environment Science 2.
Introduction to Environmental Science 2 This course expands upon topics introduced in ESCI 1301 including water and energy resources, climate change, biogeochemical cycles and waste management. Material of regional and current interest is incorporated.
2 Credit Hours
2 Total Contact Hours
0 Lab Hours
2 Lecture Hours
0 Other Hours

ESCI 1301. Intro to Environmental Sci.
Introduction to Environmental Science (3-0) An introduction to environmental science, emphasizing the multi-disciplinary approach required to document, understand and solve environmental problems. Topics include such large scale challenges as global warming, deforestation, and energy consumption, as well as more local problems such as water and air quality, organic and inorganic toxins, and human health. Material of regional and current interest is incorporated.
3 Credit Hours
3 Total Contact Hours
0 Lab Hours
3 Lecture Hours
0 Other Hours

ESCI 1310. Field Methods in Env Science.
Field Methods in Environmental Science Project based course that focuses on solving local environmental problems. Students will carry out fieldwork and sampling campaigns, collect and analyze field and laboratory data, and learn to communicate their results and conclusions effectively.
3 Credit Hours
0 Total Contact Hours
0-3 Lab Hours
0-2 Lecture Hours
0 Other Hours

Major Restrictions:
Restricted to majors of ESCI

Prerequisite(s): (ESCI 1101 w/C or better AND ESCI 1301 w/C or better)
ESCI 2105. Research Exp in Env Science 2.
Student will continue a mentored research project with the goal of preparing and presenting a scientific poster at a local, regional or national meeting.
1 Credit Hour
3 Total Contact Hour
2 Lab Hour
1 Lecture Hour
0 Other Hour
Prerequisite(s): (ESCI 2204 w/C or better)

ESCI 2201. Environmental Policy & Law.
Environmental Policy & Law (2-0) A survey of the practical knowledge required to begin a career in the environmental arena. Topics include an overview of environmental agencies, laws, and regulations; quality control/quality assurance (QA/QC) procedures; environmental sampling, including field work; sample custody, analysis and record-keeping; ethics; the roles of the public and private sector in environmental management.
2 Credit Hours
2 Total Contact Hours
0 Lab Hours
2 Lecture Hours
0 Other Hours
Prerequisite(s): (ESCI 1101 w/C or better AND ESCI 1301 w/C or better)
Corequisite(s): ESCI2105

Students will work under the supervision of a faculty mentor on a selected research project in the environmental sciences. Seminars associated with this course will emphasize professional developmental activities including experimental design, ethics, applying for internships, and science communication.
2 Credit Hours
4 Total Contact Hours
3 Lab Hours
1 Lecture Hours
0 Other Hours
Prerequisite(s): (ESCI 1310 w/C or better)

ESCI 3192. Prof. Development in ESCI.
Professional Development in ESCI Professional development preparation for postgraduate study of careers for major in Environmental Sciences.
1 Credit Hour
1 Total Contact Hour
0 Lab Hour
1 Lecture Hour
0 Other Hour
Major Restrictions:
Restricted to majors of ESCI
Classification Restrictions:
Restricted to class of JR,SR
Prerequisite(s): (ESCI 1301 w/C or better AND ESCI 2105 w/C or better AND ESCI 2201 w/C or better AND ESCI 2204 w/C or better AND ESCI 2301 w/C or better)

ESCI 3308. Climate Science.
A descriptive synthesis of Earth's climate system. Areas of emphasis include: (1) scientific foundations of the study of Earth's climate system, climate dynamics and climate change, (2) basic understandings of Earth's climate system as a part of the overall Earth system and Earth's place in the solar system, (3) geological and instrumental record of climate, and (4) human impacts on the climate system, including human vulnerability and response to climate change.
3 Credit Hours
3 Total Contact Hours
0 Lab Hours
3 Lecture Hours
0 Other Hours
Prerequisite(s): (GEOG 1306 w/C or better ) OR (GEOL 1211 w/C or better ) OR (GEOL 1313 w/C or better)
ESCI 4166. Directed Study, Env. Sci.
Directed Study, Environmental Science (0-0-1) Directed study problems in environmental science; hours and subjects to be arranged with each student; for undergraduates who wish to do special work on a special problem. No student may receive credit for more than six hours of directed study work. Application of a directed study towards required upper division elective hours in the major is subject to prior approval by the departmental undergraduate studies committee.
1 Credit Hour
1 Total Contact Hour
0 Lab Hour
0 Lecture Hour
1 Other Hour

ESCI 4266. Directed Study, Env. Sci.
Directed Study, Environmental Science (0-0-2) Directed study problems in environmental science; hours and subjects to be arranged with each student; for undergraduate students who wish to do special work on a special problem. No student may receive credit for more than six hours of directed study work. Application of a directed study towards required upper division elective hours in the major is subject to prior approval by the departmental undergraduate studies committee.
2 Credit Hours
2 Total Contact Hours
0 Lab Hours
0 Lecture Hours
2 Other Hours

ESCI 4301. Senior Project.
Senior Project: Examination of case studies of the application, successful and unsuccessful, of environmental science at the local, regional, national, and international levels. Includes a class project on a locally relevant environmental issue. A research plan will be developed, data will be collected, analyzed, and presented.
3 Credit Hours
3 Total Contact Hours
0 Lab Hours
3 Lecture Hours
0 Other Hours
Prerequisite(s): (ESCI 2105 w/C or better AND ESCI 2201 w/C or better)

ESCI 4315. Topics in Environmental Sci.
Topics in Environmental Science (3-0) Study of topics in fields such as environmental geology, environmental chemistry, environmental biology, environmental justice, environmental health, physics, hydrogology and environmental law. May be repeated when topics vary.
3 Credit Hours
3 Total Contact Hours
0 Lab Hours
3 Lecture Hours
0 Other Hours

ESCI 4320. Monitoring Regional Sust.
Monitoring Regional Sustainability Multiple projects are designed to understand and solve local and regional environmental problems. Through hands-on experiences, field trips and guest lecture, students will be trained to collect data using state-of-the-art instruments and techniques, analyze their own data as well a larger, more complex datasets, and understand the importance of environmental resources in societal stability.
3 Credit Hours
3 Total Contact Hours
0 Lab Hours
3 Lecture Hours
0 Other Hours

ESCI 4366. Directed Study, Env. Sci.
Directed Study, Environmental Science (0-0-3) Directed study problems in environmental science; hours and subjects to be arranged with each student; for undergraduate students who wish to do special work on a special problem. No student may receive credit for more than six hours of directed study work. Application of a directed study towards required upper division elective hours in the major is subject to prior approval by the departmental undergraduate studies committee.
3 Credit Hours
3 Total Contact Hours
0 Lab Hours
0 Lecture Hours
3 Other Hours
Environmental Science Internship (0-0-6) Practical on-the-job experience in federal, state, city-county governmental, and/or private agencies or industries.
3 Credit Hours
6 Total Contact Hours
0 Lab Hours
0 Lecture Hours
6 Other Hours

Prerequisite(s): (ESCI 2201 w/C or better)

ESCI 4399. Senior Thesis.
Senior Thesis (0-0-3) Guided program of research culminating in the writing of a senior thesis.
3 Credit Hours
3 Total Contact Hours
0 Lab Hours
0 Lecture Hours
3 Other Hours