

MINOR IN ENVIRONMENTAL SCIENCE

The ENSC minor is administered by the Department of Physical Sciences within the College of Arts and Sciences. Consult with the College of Arts and Sciences Academic Advising Office for additional information.

Environmental Science issues and careers require scientists who are: educated in more than one discipline, technically skilled, and aware of the political and social aspects of environmental problems. An understanding of both basic science and applied science is important for this dynamic area of study. Therefore, the minor requires strong foundations of supporting science courses in biology, chemistry, and geology. These courses provide students with the needed breadth and depth of knowledge to understand and address both natural resources and the complex environmental problems facing modern society.

The minor in Environmental Science at the University of Texas of the Permian Basin is designed for students who expect to work professionally in environmental science related job. It provides an understanding of both basic science and applied science. Specific coursework includes a variety of topics ranging from ecology, to geographic information systems and environmental law, while obtaining the critical hands-on experience of statistical sampling and instrumental analysis skills in courses such as analytical chemistry.

Students in the program are also strongly encouraged to join the National Association of Environmental Professionals (NAEP) which provides opportunities for professional growth and interactions with professionals in the field.

Requirements

The total semester credit hours required for a minor in Environmental Science is six courses with a total of credit of 18 hrs.

Compulsory courses

Complete the following specific courses

		Credit hrs
ENSC 3301	Environmental Sc I	3
ENSC 3302	Environmental Sc II	3

Electives

12 credit hours from the following group:

ENSC 3310	Water Quality	3
ENSC 3320	Environmental law	3
ENSC 4329	Geog Info Systems (GIS) Applications	3
ENSC 4360	Advance Environmental Science Topics	3
ENSC 4395	Research in Environmental Science	3

Course Listing

ENSC 3301 Environmental Science I (3)

This complete survey of modern environmental science and environmental engineering covers the spheres of the environment: water, air, earth, life, and human activities, especially technologies, which affect the earth and its bio-sphere. Prerequisites: CHEM 1311, 1312, or GEOL 1301, 1302, Co-requisite BIO 1306, 1307. F.

ENSC 3302 Environmental Science II (3)

This complete survey of modern environmental science and environmental engineering covers the spheres of the environment: water, air, earth, life, and human activities, especially technologies, which affect the earth and its bio-sphere. Prerequisite: ENSC 3301 or consent of instructor. S.

ENSC 3310 Water Quality (3)

Sampling, physical, chemical, and biological properties of water, methods of water and wastewater treatments and the quality of reclaimed water will be discussed, including topics such as water pollution, measurement of water quality, water law and standards, and solid waste management. Pre-or Corequisites: ENSC 3301. F.

ENSC 3315 Air Quality (3)

Provides a comprehensive overview of air quality issues, including a better understanding of atmospheric chemistry, the effects of pollution on public health and the environment, and the technology and regulatory practices used to achieve air quality goals. Pre-or Corequisites: ENSC 3301. S.

ENSC 3320 Environmental Law (3)

To understand how environmental laws are made and how disputes are resolved, the history and the need for some Federal and selected State environmental laws such as National Environmental Policy Act, Pollution Prevention Act, Clean Air Act, Clean Water Act, etc. are taught. Pre-or Corequisites: ENSC 3301 or consent of instructor. F.

ENSC 4329 Geographical Information Systems (GIS) Applications (3)

Principles and techniques of spatial data collection, handling, analysis, and visualization are continued. Application of geographic information systems technology in land use, ecology, resource management, environmental site evaluation, demographics and marketing, and map-making. Hands-on experience with workstation and ware is included. Prerequisite: GEOL 3329, or consent of instructor. S.

ENSC 4360 Advance Environmental Science Topics (3)

Topics in environmental science which may include for examples: environmental impact assessment, environmental health and toxicology, oceanography, land reclamation, green chemistry, and sustainable energy. Pre- or Corequisites: ENSC 3302. S.

ENSC 4395 Research in Environmental Science (3)

An introduction to research related to environmental issues and problems. Students will identify a research problem of local or regional interest to work on. This course will enhance students interdisciplinary grasp of environmental-energy issues and their technical, policy, human and social dimensions. Prerequisite: ENSC 3301. F, S, Sm.