

B.S. in Environmental Science

MISSION STATEMENT:

The mission of the Environmental Science B.S. program is to provide interdisciplinary scientific preparation for students wishing to pursue knowledge and employment in the field of environmental consulting, oversight and research.

OBJECTIVES of the Program:

- 1) Provide a structured multidisciplinary scientific core framework as well as upper-division options in biology, chemistry, geology, or environmental systems and resource management.
- 2) Provide sufficient depth of coursework for students wishing to pursue graduate studies.
- 3) Provide a four-year degree program that satisfies the requirement for the Single Subject Teaching Credential in Science.

LEARNING OUTCOMES:

- 1) Student will demonstrate literacy of the principles of form, function and organization of organisms at the levels of: molecules, cells, tissues, organs, organisms, populations, communities and organisms.
- 2) Students will demonstrate knowledge of the fundamental principles of chemistry, chemical structure, bonding, equilibrium, dynamics, and reactions, as well as classes of organic compounds and reactions.
- 3) Students will understand the nature and distribution of earth materials, the processes by which the materials are formed and altered, the nature and development of the landscape, and interpretation of earth history.
- 4) Students will demonstrate knowledge of the major components of the physical environment, including landforms, climate, vegetation, and soils.
- 5) Students will demonstrate scientific literacy and ability to engage in scientific inquiry concerning environmental issues through the evaluation and analysis of scientific literature, and presentation of results in written and oral form.

ASSESSMENT PLAN:

Students will demonstrate interdisciplinary comprehension of environmental issues through development of an oral and written analysis of an environmental problem in ENSC 4800, Seminar in Environmental Science (3). This assignment will demonstrate accomplishment of all five learning outcomes.

Implementation Plan:

- 1) Faculty Advisory Committee members will review topics, written papers, and oral presentations from ENSC 4800 each year in relation to the learning outcomes for the program.
- 2) Student viewpoints regarding the structure, and depth and breadth of coursework in the Environmental Science B.S. program will be assessed annually via a questionnaire given in ENSC 4800.
- 3) Data will be gathered starting in Fall 2002 from ENSC 4800 to assess learning outcomes.