

ENVIRONMENTAL SCIENCE (ENSC)

ENSC 100. Intro to Environmental Science. (3 Credits)

A dual-credit course with designated high schools to acquaint selected high school students with the basic principles of environmental science—topics such as soils, water, air, energy, wildlife, IPM, population ecology, forestry and waste management will be covered. Students will design and carry out a long-term project which will be based on a current environmental issue. 3 credits (minimum of 45 lecture class hours), spring semester

ENSC 101. Agricultural Science. (3 Credits)

Basic introduction to general agricultural and life science principles as an aid to the understanding of plant, animal and soil functions, as well as fundamental computations as applied to agricultural production. This course is intended for non-ENSC majors. 3 credits (3 lecture hours), fall or spring semester This course satisfies the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for Natural Sciences (and Scientific Reasoning).

ENSC 102. Botany-Form Function Seed Plt. (3 Credits)

Structure and function of higher vascular plants, with emphasis on cell structure, photosynthesis and respiration, anatomy, physiology, reproduction and Mendelian genetics. 3 credits (2 lecture hours, 2 laboratory hours), fall or spring semester This course satisfies the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for Natural Science (and Scientific Reasoning).

ENSC 103. Botany - Plant Diversity. (3 Credits)

An evolutionary survey of the plant kingdom with emphasis on structure, plant life cycles, ecological significance, and importance of non-vascular and lower vascular plants. Prerequisite: BIOL/ENSC 102 or permission of instructor (3 credits; 2 lecture hours and 2 laboratory hours per week), spring semester This course satisfies the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for Natural Science (and Scientific Reasoning).

ENSC 106. Pesticide Use and Handling. (2 Credits)

Basic principles of pesticide use, handling and application, including laws, safety, the environment, storage and disposal. Students will be given the opportunity to be tested by the Department of Environmental Conservation to receive certification at the end of the course. 2 credits (1 lecture hour, 2 laboratory hours), spring semester

ENSC 107. Integrated Pest Management. (1 Credit)

Principles of pest control emphasizing biological, cultural, and regulatory control methods in a sound ecological and economic manner. Introduction to integrated pest management tactics of monitoring, forecasting, determining thresholds and control options. The course will also survey pest management programs used in various agricultural environments. 1 credit (1 lecture hour), fall semester

ENSC 125. Environmental Chemistry. (4 Credits)

Explore the chemical phenomena that occurs in natural environments to gain a clear understanding of ecosystem processes through a chemistry lens. Reactions, transport, and fate of chemical species in the air, soil, and water environments, and the chemistry of waste and energy will be addressed. The focus will be placed on applying knowledge of introductory chemistry to natural resource concerns to better understand the how and why of these problems. Laboratory experiments will provide experience with methods of evaluating environmental systems using the scientific method, sample collection, methods of analysis, and data interpretation. 4 credits (3 hours lecture, 2 hours lab), satisfies the SUNY General Education requirement for Natural Science

ENSC 261. Environmental Justice. (3 Credits)

This course will examine environmental quality and social justice. Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income concerning the development, implementation, and enforcement of environmental laws, regulations, and policies. The basic premise of the course is to discuss and analyze the history of environmental justice and current advocacy introducing the concept that all people have a right to live in a clean environment and have access to resources to sustain their health and livelihood. The course will cover the environmental justice movement's history, issues, and future, including climate, energy, water, food, and urbanization justice. The course relies on readings, student interaction, and site visits. Student can not earn credit for both ENSC 261 and SOCI 261 3 credits (3 lecture hours), spring semester This course satisfies the Liberal Arts and Sciences requirement and the SUNY General Education Requirement for Social Science.