

# ENVIRONMENTAL SCIENCE (ENVS)

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## **ENVS 2202. Environmental Science (3)**

This course is an interdisciplinary course integrating principles from biology, chemistry, ecology, geology, and non-science disciplines as related to the interactions of humans and their environment. Issues of local, regional, and global concern will be used to help students explain scientific concepts and analyze practical solutions to complex environmental problems. Emphasis is placed on the study of ecosystems, human population growth, energy, pollution, and other environmental issues and important environmental regulations.

## **ENVS 3230. Intro to Env. Sci. Research I (3)**

This course is a supervised introductory research experience with biology or chemistry faculty at Clayton State University. Students must articulate clear project goals and objectives. Students will learn to demonstrate use of scientific literature, and document their progress using a research notebook. The project will be summarized in a written research report and an oral presentation or poster to the department faculty. Students will be assigned a grade for this course based on evaluation by the supervisor and other CSU faculty.

**Prerequisites:** BIOL 1108 and BIOL 1108L and BIOL 1107 and BIOL 1107L and CHEM 1211 and CHEM 1211L and CHEM 1212 and CHEM 1212L

## **ENVS 4110. Environmental Chemistry (3)**

This course is an introduction to the practice of modern environmental chemistry. Topics include the chemical processes that regulate the composition of air, water, and soil and pollutants therein. Attention is paid to understanding the chemical equilibrium and kinetics of natural systems and how they are influenced by human activities. Additional topics include sources, effects, and remediation of pollution.

**Prerequisites:** CHEM 2411 and CHEM 2411L

## **ENVS 4110L. Environmental Chemistry Lab (2)**

Laboratory course is designed to illustrate principles, processes, and experimental methods in environmental analysis of pollutants in water, soil, and the atmosphere. The laboratory will focus on the quantitative analysis and identification of common chemical pollutants, including common volatile and semi-volatile organics, metals and metalloids. Some of the laboratory meetings will be in the form of short field trips to practice sampling techniques as well as in situ and on site analysis techniques. The laboratory will consist of EPA-approved methods of analysis where possible.

**Prerequisites:** CHEM 2411 and CHEM 2411L

## **ENVS 4230. Env. Sci. Research Practicum I (3)**

This course is a supervised research experience with biology or chemistry faculty at Clayton State University. Students must articulate clear project goals and objectives. Students will learn to demonstrate use of scientific literature, and document their progress using a research notebook.

The project will be summarized in a written research report and an oral presentation to the department faculty. Students will be assigned a grade for this course based on evaluation by the supervisor and other CSU faculty.

**Prerequisites:** BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and CHEM 2411 and CHEM 2411L

## **ENVS 4700. Special Topics in Environ. Sci (1-4)**

Selected topics of current interest in environmental science. This course will be offered as fits the needs and interests of the student and faculty.

**Prerequisites:** BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and CHEM 1211 and CHEM 1211L and CHEM 1212 and CHEM 1212L

## **ENVS 4701. Special Topics in Environ. Sci (1-4)**

Selected topics of current interest in environmental science. This course will be offered as fits the needs and interests of the student and faculty.

**Prerequisites:** BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and CHEM 1211 and CHEM 1211L and CHEM 1212 and CHEM 1212L

## **ENVS 4702. Special Topics in Environ. Sci (1-4)**

Selected topics of current interest in environmental science. This course will be offered as fits the needs and interests of the student and faculty.

**Prerequisites:** BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and CHEM 1211 and CHEM 1211L and CHEM 1212 and CHEM 1212L

## **ENVS 4703. Special Topics in Environ. Sci (1-4)**

Selected topics of current interest in environmental science. This course will be offered as fits the needs and interests of the student and faculty.

**Prerequisites:** BIOL 1107 and BIOL 1107L and BIOL 1108 and BIOL 1108L and CHEM 1211 and CHEM 1211L and CHEM 1212 and CHEM 1212L