

# ENVIRONMENTAL SCIENCES (ENV)

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## **ENV 111 Introduction to Environmental Science (GS) (3 credits)**

This course is a basic human ecology course for the general student, presenting the basic principles of ecology as related to use and misuse of the environment. Environmental problems and proposed solutions are studied and discussed.

## **ENV 112 Environmental Science Laboratory (GL) (1 credit)**

This is an introductory laboratory course in environmental science. The course provides hands-on learning using experimentation, field exercises, science technology, and computer activities to demonstrate how humans impact environment. Co-requisite or pre-requisite: ENV 111. This course meets for a total of 30 laboratory hours. Course fee.

Prerequisite(s): ENV 111 (may be taken concurrently)

## **ENV 122 Introduction to Soil Sciences (3 credits)**

This course introduces the student to the fundamental principles of soil science. Topics include soil properties, soil fertility, and environmental concerns of using soils for agricultural production. Emphasis is placed upon the characteristics of Maryland soils which are similar to the soils in the Mid-Atlantic region. The importance of nutrient management and non-point source pollution of the Chesapeake Bay are covered. This course may require field trips. A reasonable alternative option to the required field trip will be available. The course meets for a total of 30 hours of lecture and 30 hours of laboratory per semester. Course fee.

## **ENV 191 Indep Study: Environ Science (1 credit)**

This course is designed to provide the student with an opportunity to gain or enhance ecological systems knowledge and to explore an area of interest related to environmental science research.

Prerequisite(s): (ENV 111)

## **ENV 193 Independent Study: Environmental Sciences (3 credits)**

## **ENV 210 Introduction to Hazardous Waste/Materials Management (4 credits)**

This course provides education and training to prepare the student to work with hazardous materials and hazardous waste, safely and in full compliance with the law. Topics include an overview of the Resource Conservation and Recovery Act, the Superfund Amendment and Reauthorization Act, Occupational Safety and Health Administration regulations, basic chemistry of hazardous materials, hazardous waste management and spill response procedures. Course meets for 45 hours of lecture and 45 hours of laboratory per semester. Usually offered in spring semester. Course fee.

Prerequisite(s): CHEM 111

## **ENV 220 Principles of Environmental Analysis I (4 credits)**

This course teaches proper environmental sampling techniques, data collection methodology, field instrumentation and laboratory sample testing, quality assurance and documentation. Groundwater, physical, chemical, and biological characterization of aquatic systems, priority pollutant analysis, and treatment technologies for toxic and hazardous wastes are covered. Field experiences are required. Some topics may integrate between this course and ENV 221. Course meets for 30 hours of lecture and 60 hours of laboratory per semester. Usually offered in spring semester. Course fee.

Prerequisite(s): CHEM 111

## **ENV 221 Principles of Environmental Analysis II (4 credits)**

This course is a companion to ENV 220. Environmental sampling techniques, data collection methodologies, field instrumentation, and laboratory sample testing are explored with emphasis on atmospheric, noise and radiological monitoring, soil analysis, biological community structure evaluation, and pollution prevention. Course meets for 30 hours of lecture and 60 hours of laboratory per semester. Usually offered in fall semester. Course fee.

Prerequisite(s): CHEM 111

## **ENV 225 Environmental Problems - Assessment and Evaluation (4 credits)**

This is a capstone course in which students study an environmental problem and design a program which involves monitoring, analysis, instrumentation, data collection and synthesis of information into a report. The students provide oral and written presentations of their methodology, data and conclusions. Usually offered in spring semester. Course fee.

Prerequisite(s): (ENV 111 and MATH 216 and ENV 220 and ENV 221)

## **ENV 273 Cooperative Education III: Environmental Science (3 credits)**

Cooperative Education experiences are work-based learning experiences with an employer for a specific period of time. The experience may be paid and must be related to the career and specific curriculum in which the student is enrolled. It is an opportunity for the student to supplement/integrate classroom learning with learning from a related work setting. A student registers for one to four credits of Cooperative Education in the curriculum in which he/she is enrolled. Students must have completed 12 credits prior to co-op, and have a GPA of 2.0 or higher. Please see the Coordinator for Career Services in Advising, Career & Transfer Services for approval.

## **ENV 274 Cooperative Education IV: Environmental Science (4 credits)**

Cooperative Education experiences are work-based learning experiences with an employer for a specific period of time. The experience may be paid and must be related to the career and specific curriculum in which the student is enrolled. It is an opportunity for the student to supplement/integrate classroom learning with learning from a related work setting. A student registers for one to four credits of Cooperative Education in the curriculum in which he/she is enrolled. Students must have completed 12 credits prior to co-op, and have a GPA of 2.0 or higher. Please see the Coordinator for Career Services in Advising, Career & Transfer Services for approval.

## **ENV 293 Independent Study: Environmental Sciences (3 credits)**