ENVIRONMENTAL SCIENCE (ENVS)

ENVS 100. INTRODUCTION TO ENVIRONMENTAL SCIENCE. 5 Credits.
Notes: this course includes a weekly laboratory that uses basic quantitative techniques for collecting and analyzing data from environmental systems.
Pre-requisites: MTHD 104.
Satisfies: a BACR for natural sciences.
This course is an introductory exploration of environmental science that emphasizes a scientific approach toward understanding contemporary human interaction with the natural environment. The structure, function and interrelationships of terrestrial, aquatic and atmospheric systems are treated through the application of biological, chemical and geological principles.

ENVS 300. ENVIRONMENTAL SCIENCE JUNIOR SEMINAR. 1 Credit.
Pre-requisites: ENVS 100 and major declared as Environmental Science.
The purpose of this seminar course is to expose students to a variety of potential careers in the environmental sciences.

ENVS 323. GEOGRAPHIC INFORMATION SYSTEMS I: SPATIAL ANALYSIS FOR ENVIRONMENTAL SCIENCES. 5 Credits.
Cross-listed: GEOS 323.
Notes: includes hands-on GIS work in the lab.
Pre-requisites: GEOS 111 or GEOS 112 or GEOS 113 or junior standing.
Introduction to Geographic Information Systems (GIS) with an emphasis on its applications in the environmental sciences. This course can be taken to satisfy a core requirement for the Geosciences BS and BA, and Certificates in GIS and Remote Sensing.

ENVS 399. DIRECTED STUDY. 1-5 Credits.

ENVS 400. ENVIRONMENTAL SCIENCE SENIOR SEMINAR. 1 Credit.
Pre-requisites: ENVS 300 and junior or senior standing.
Through reading current literature, discussion and writing, students integrate knowledge of chemistry, biology and geology with current environmental issues.

ENVS 449. ADVANCED SPATIAL ANALYSIS. 5 Credits.
Cross-listed: GEOS 449.
Pre-requisites: GEOS 323 or ENVS 323, or GEOS 321.
This is an advanced course where students learn to build Geographic Information System models for environmental applications. In the course, students design, collect data, process data and build several spatial models of increasing complexity. Students will learn advanced techniques in Geographic Information Systems including raster processing, analysis methods and layout design and document their projects in a report form and create production quality maps.

ENVS 490. CAPSTONE: ENVIRONMENTAL GEOCHEMISTRY. 4 Credits.
Cross-listed: GEOS 490B.
Pre-requisites: CHEM 172 and CHEM 172L or permission of instructor.
Satisfies: a university graduation requirement—senior capstone.
Application of principles of geochemistry to environmental problems, including air and water pollution, water-rock interactions, weathering and soil formation. Origin, distribution and transport of inorganic contaminants in air, water, soils, sediments and plants. The behavior of trace elements in near surface environments.

ENVS 496. EXPERIMENTAL COURSE. 1-15 Credits.

ENVS 499. DIRECTED STUDY. 1-5 Credits.