

Environmental Management (ENVT)

ENVT 1110 Introduction to Environmental Management 3 PP

Surveys environmental issues and the impact of people on the environment. Covers water, air, and soil pollution. Discusses pollution prevention and remediation methods. For majors and any who have an interest in environmental issues.

ENVT 1200 Environmental Worker Safety 3

Discusses safety laws, training requirements, and the use of personal protective equipment. Covers management of a safety program and development of a safety culture.

ENVT 1210 Introduction to Water Reclamation 3

Covers the basic processes used to treat wastewater including primary treatment, biological treatment, and chemical treatment processes. Offers excellent preparation for the state license exam.

ENVT 1270 Environmental Microbiology 3

* Prerequisite(s): MICR 2060 recommended

For water managers, public health workers, and environmental managers. Discusses the role microorganisms in water treatment, wastewater treatment, agriculture, environmental change, and others.

ENVT 1300 Environmental Lab and Sampling 3

Studies basic laboratory techniques used by labs working on environmental projects. Covers safety, pH, dissolved oxygen, BOD, turbidity, organics, and others. Includes opportunities for undergraduate research. Course Lab fee of \$38 for supplies/materials/lab applies.

ENVT 1360 Introduction to Water Treatment 3

Covers coagulation, sedimentation, filtration, water sources, sampling, disinfection, and regulations. Introduces the equipment used to treat water. Discusses the prevention of disease through effective treatment.

ENVT 1510 Hazardous Materials Emergency Response 3

Meets the requirements for the OSHA 40 hour training. Includes personal protection, identifying hazardous materials, spill control, and incident management. Completers may obtain OSHA certification for handling hazardous materials. Course fee of \$28 for materials applies.

ENVT 2560 Environmental Health 3

* Prerequisite(s): BIOL 1010 and CHEM 1110 recommended

Presents how environmental protection and proper sanitation can protect the public. Covers control of infectious and noninfectious diseases, safe water supplies, housing safety, radiation hazards, and air pollution.

ENVT 2710 Environmental Careers 1

For all students interested in environmental careers. Explores the career opportunities in environmental areas. Covers resumes, letters of inquiry, networking, and other methods of job seeking.

ENVT 2730 Introduction to Soils 4

* Prerequisite(s): ENGL 1010 or ENGH 1005

An introductory course for majors and non-majors. Covers basic topics such as soil classification, soil-water relations, fertility, soil strength, and soil conservation. Offers important background information for those involved in pollution prevention and remediation, environmental monitoring, and home gardening.

ENVT 3010 Environmental Toxicology 3

* Prerequisite(s): BIOL 1010 and CHEM 1110 recommended

For environmental managers and safety managers. Discusses safe levels of exposure, safe industrial practices and regulations. Reviews standards for toxic substances. Increases awareness of toxins commonly found on job sites.

ENVT 3280 Environmental Law 3

* Prerequisite(s): ENGL 1010 or ENGH 1005 (ENGL 2010 recommended), and University Advanced Standing.

Covers the Clean Water Act, the Safe Drinking Water Act, and the Clean Air Act. Reviews the Toxic Substances Control Act, the Resource Conservation and Recovery Act, the Superfund law, DOT regulations, and OSHA regulations.

ENVT 3290 Environmental Permits and Reports 3

* Prerequisite(s): ENGL 1010 recommended

For students interested in becoming environmental managers. Covers the permits and reports that are required by the EPA, OSHA, state and local agencies that relate to air, water, and hazardous materials. Includes the preparation of sample permit applications and monthly operational reports.

ENVT 3320 Hydraulics of Water 3

* Prerequisite(s): MAT 1010 and University Advanced Standing

Prepares students to analyze the flow of water. Includes the continuity equation, Hazen-Williams formula, and the Bernoulli Theorem. Completers will be better able to interact with engineers and operate water equipment in a professional manner.

ENVT 3330 Water Resources Management 3

* Prerequisite(s): University Advanced Standing

Examines the broad issues that affect water quality and supply. Covers watershed management, limnology, stormwater management, and wetlands. Discusses the biological and physical processes that occur and the legal constraints that affect management decisions.

ENVT 3530 Environmental Management Systems 3

* Prerequisite(s): ENGL 1010 or ENGH 1005 (ENGL 2010 recommended), and University Advanced Standing

For those interested in the interaction between industry and the environment. Covers the systems and organization necessary to effectively manage environmental issues. Discusses the ISO 14000 standard and its effect upon management practices.

ENVT 3550 Site Investigation 3

* Prerequisite(s): University Advanced Standing; CHEM 1110 recommended

Covers the investigation and preliminary cleanup of a contaminated site. Includes planning, training, site characterization, sampling, and site control. Completers should have a basic understanding of the process used to remediate an environmentally damaged site.

Course Descriptions

ENVT 3600

Appropriate Technology and Sustainable Development for the Developing World **3**

* Prerequisite(s): ENGL 2010 and University Advanced Standing

Reviews the origins of poverty and the current conditions of people in developing countries. Offers development solutions being pursued around the world. Empowers students to play an active role in international poverty reduction by introducing international development and its challenges. Teaches students how to determine appropriate technologies based on design, physical, and social considerations.

ENVT 3630

Introduction to Geographic Information Systems **4**

* Prerequisite(s): University Advanced Standing

Introduces the operation of Geographic Information Systems (GIS). Focuses on GIS software and basic theory of geographic information science. Offers valuable preparation for careers in geography, planning, surveying, marketing, environmental technology, biology, engineering, and other related fields. Lab access fee of \$30 for computers applies

ENVT 3700

Current Topics in Environmental Management **3**

* Prerequisite(s): University Advanced Standing; ENVT 1110 recommended

Studies local environmental issues, new technologies, and the challenges faced by environmental managers. Issues discussed will vary with the semester. Prepares students for a thoughtful discussion of environmental issues.

ENVT 3750

Land Use Planning **3**

* Prerequisite(s): University Advanced Standing; ENVT 3280 recommended

Covers key issues in land use planning and how they affect the environment. Includes multiple use concepts, focused uses, zoning, mapping, and the political processes used in planning. Discusses the importance of strategic planning and public relations.

ENVT 3770

Natural Resources Management **3**

* Prerequisite(s): University Advanced Standing; BIOL 1010 recommended

For students in the Environmental Management program and others interested in natural resource issues. Introduces the management and conservation of natural resources. Discusses forestry, range management, wildlife management, and outdoor recreation.

ENVT 3790

Hydrology I WE **4**

* Prerequisite(s): (MATH 1050 or MATH 1055), GEO 1010 and GEO 1015, and University Advanced Standing

Teaches how to solve textbook problems by developing skills in mathematics and understanding of hydrology. Uses hydrology to solve the real problems of real people. Requires that each student carry out a service learning project in the areas of water development, water conservation or water quality. Course fee of \$21 applies.

ENVT 3800 (Cross-listed with: CHEM 3800, PHYS 3800)

Energy Use on Earth **3**

* Prerequisite(s): (PHYS 1010 or PHSC 1000 or CHEM 1010 or GEO 1010 or GEO 2040 or METO 1010) and (MATH 1050 or MATH 1055) and University Advanced Standing

Covers the science of energy production and consumption. Quantitatively analyzes various methods of energy production, distribution, and end use in all sectors of our society, including transportation, residential living, and industry. Examines the impacts of our energy consumption on the environment and prospects for alternative energy sources. Intended for science majors interested in energy use in society or in an energy related career, and for students in other majors who feel that a technical understanding of energy use will help them to understand and mitigate its impact in our society.

ENVT 3850

Environmental Policy **3**

* Prerequisite(s): ENVT 1110 and ENVT 3280 (recommended)

For upper-division students with an interest in environmental policy. Discusses the process by which policies are made and the factors that influence policy formation. Includes political factors, economics, international issues, public awareness and others.

ENVT 4790

Hydrology II **4**

* Prerequisite(s): ENVT 3790 and University Advanced Standing

Continuation of ENVT 3790 with an emphasis on contaminant hydrology and computer modeling. Requires students to prepare a case study in the area of contaminant hydrology. Requires that each student carry out a service learning project in the areas of water development, water conservation or water quality. Course fee of \$21 applies.

ENVT 482R (Cross-listed with: GEO 482R)

Geologic Environmental Internship **1 to 3**

* Prerequisite(s): GEO 1010 or ENVT 1110; 12 credit hours of any GEO, GEOG, or ENVT courses; declared major in any Earth Science program and University Advanced Standing

Engages students in supervised geologic or environmental work in a professional setting. Requires approval by the Chair of the Department of Earth Science. Includes maintaining a journal of student experiences and preparing a paper summarizing their experience. A maximum of 3 credit hours may be counted toward graduation. May be graded Credit/No Credit.

ENVT 495R

Special Projects in Environmental Management **1 to 3**

* Prerequisite(s): Instructor Permission and University Advanced Standing

Allows students to pursue undergraduate research projects. Includes instructor directed practical research. Students will prepare a report of their findings. May be repeated for a maximum of 6 credits toward graduation.