Webster UNIVERSITY

College of Arts & Sciences
Graduate Program

Environmental Management

Program Description

The online Master of Sciences (MS) in Environmental Management program is designed to provide students with the tools and techniques to navigate the business aspects of environmental management. Our students learn to assess and convey the business, ethical, and legal information to those who make or are affected by the decisions that shape our natural resources and environment.

The prerequisite for the program is a bachelor's degree.

Learning Outcomes

Upon completion of the program, students should:

- Understand the important terminology, facts, concepts, principles and theories used in the environmental management field.
- Be able to manage environmental related risk.
- Be able to conduct an environmental audit.
- Be able to hire technically skilled employees and consultants.
- Be able to research environmental regulations.
- Be able to make sound management decisions based on environmental and scientific data.
- Be able to conduct environmental research.

Program Curriculum

The 36 credit hours required for the MS degree must include the following courses for a degree in environmental management:

ENMG 5000 Environmental Science
BUSN 6110 Operations and Project Management
ENMG 5100 Environmental Law I
ENMG 5200 Environmental Law and Compliance Auditing
ENMG 5300 Environmental Accounting
ENMG 6100 Management of Land and Water Resources
ENMG 6110 Management of Air Quality
ENMG 6120 Waste Management and Pollution Control
ENMG 6200 Environmental Risk Management and Strategies

In addition, the student chooses graduate elective courses offered from other programs.

Course Descriptions

ENMG 5000 Environmental Science (3)
This is a course that provides a broad overview of the environmental fields. The student will obtain the base knowledge necessary for the additional environmental management courses. The topics of law, compliance audits, accounting, land and water resources, air quality, waste management, and pollution control are included in this course.

BUSN 6110 Operations and Project Management (3)
This is a course that focuses on the major managerial issues in manufacturing management and the tools that can be used to manage them. Special attention will be given to project management, including PERT, critical path scheduling, and time-cost models, in operations management and other business settings. The major operations management issues are quality management and control, capacity management, plant location, layout and design, production planning and scheduling, supply chain management, and inventory management. The analytical tools covered include queuing theory, statistical quality control, linear programming, and learning curves. Where appropriate, the use of operations management techniques in service and distribution organizations will be demonstrated. Prerequisite: BUSN 5760.

ENMG 5100 Environmental Law I (3)
This course reviews the substantive law concerning the enforcement of federal and state environmental laws as well as process for imposing or avoiding liability. Topics to be covered include hazardous waste, toxic torts, environmental cleanup programs, and federal regulations. Prerequisite: ENMG 5000.

ENMG 5200 Environmental Law and Compliance Auditing (3)
This course continues Environmental Law I and also studies the compliance auditing issues that management of environment must encompass to meet the various regulations. Cases are also used for the research of the topics in compliance auditing. Prerequisite: ENMG 5100.

ENMG 5300 Environmental Accounting (3)
This course covers corporate environmental accounting, activity-based costing, federal, state, municipal accounting, and quality control. Topics also covered will include financial and economic implications of pollution prevention, compliance projects, and procedures required for environmental accounting. Some case studies will be used for these topics.

ENMG 6100 Management of Land and Water Resources (3)
This course covers strategies used in management of multiple-use resources. A variety of management techniques will be examined that pertain to conservation and protection of resources used by the public, including recreational waters, private and public lands, and water sheds. Land use regulations, and water and land rights are restrictions that will be investigated. The role of public policy and its development will also be covered. Prerequisite: ENMG 5200.

ENMG 6110 Management of Air Quality (3)
Sampling techniques of air pollution will be introduced. Air pollutants will be analyzed in terms of their classification, source, and impact on air quality. Effects of air pollution on human health will be studied. Case studies will be used to identify management of air pollutants. Prerequisite: ENMG 5200.

ENMG 6120 Waste Management and Pollution Control (3)
Focuses on management techniques of waste disposal, including liquid and solid effluents from industry. Methods for managing waste collection, recycling, and transportation of nonhazardous and hazardous materials will be studied. Plans will be developed for establishing an environmental monitoring system. Legal, regulatory, and operational laws governing disposal of waste including hazardous waste will be covered, as well as management for recovery of brown fields. Prerequisite: ENMG 5200.

Capstone Course

ENMG 6200 Environmental Risk Management and Strategies (3)
This course integrates the types of information used for environmental management, including scientific, engineering, economic, and congressional information, into a final project. Methods used for retrieval of information will include computer searches via the Internet, use of CD-ROMs, and bibliographical indexes to obtain the most current information for their final project. Prerequisite: completion of all required courses for the MS in environmental management.