

Common Course Outline
ENV 156
Environmental Management Systems
3 Semester Hours

Community College of Baltimore County

Description

Environmental Management Systems

Focuses on pollution prevention techniques, processes, and technologies as well as environmental management systems; students will also delve into a host of related topics such as industrial ecology, waste minimization, chemical and material substitution, and alternative technologies.

Prerequisite: ENVS 101 or permission of program coordinator.

Overall Course Objectives

Upon successful completion of ENVS 156, a student will be able to:

1. Evaluate processes and technologies for reducing or eliminating pollution.
2. Understand the relative costs and benefits of initiatives.
3. Diagram the cycle of pollutant production and disposal.
4. Identify and chart the major manufacturing program components.
5. Prepare a Pollution Prevention Program component process for a case study business.
6. Calculate the financial implications and outcomes of pollution management systems.
7. Understand the overall components of an industrial ecology program.
8. Prepare an Industrial Ecology component process for a case study business.
9. Be able to describe and identify the major components of the ISO 14000 standards.
10. Be able to conduct a program assessment for a case study business.
11. Design an implementing a program for a case study business.
12. Prepare an Environmental Management System program for a case study business.
13. Grasp the potential that engineering, material science, and chemistry has on pollutant emissions.
14. Develop an Environmental Management System Implementation strategy for a small business.

Major Topics

Introduction, the Myths and Facts of Pollution Prevention in America

Existing Practices -- the Cycle of Production, Disposal, and Remediation.

Manufacturing Program Components

P2 Program Components

Financial Implications and outcomes

Current Industrial Processes, Methods, Results and Outcomes

Industrial Ecology Components

International Standards, ISO 14000

Program Assessment Process

Alternative Processes and Technology

Implementing a Program

Best Management Practices

Process Change and Analysis

Technical and Management Resources

Formation of an Environmental Management Systems

Course Requirements

Grading procedures will be determined by the individual faculty member but may include written or oral exams, completion of written assignments or papers, and participation in class discussion and group activities.

Other Course Information

ENVS 156 serves as an elective in the A.A.S. degree and certificate programs in Environmental Science and Technology.

Date Revised

9/15/00