

EHS 116
ENVIRONMENTAL MANAGEMENT

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course covers management of hazardous materials and hazardous waste in industrial and institutional settings. Emphasis is on compliance with applicable regulations promulgated by the U.S. Environmental Protection Agency and the U. S. Department of Transportation, as enforced by North Carolina state agencies. Upon completion, students should be able to implement appropriate compliance strategies. Course Hours Per Week: Class, 4. Semester Hours Credit, 4.

COURSE OBJECTIVES:

Upon completion of this course, the student will be able to:

- a. Develop appropriate documentation to establish a chemical hygiene plan.
- b. Apply information from material safety data sheets.
- c. Respond to container labeling provisions.
- d. Develop employee training for hazard communication and chemical hygiene plans.
- e. Establish guidelines for proper maintenance of chemical inventories.
- f. Establish spill response guidelines.
- g. Demonstrate knowledge of DOT hazardous materials requirements, including packaging, labeling, and shipping regulations.
- h. Correctly classify hazardous waste according to RCRA regulations.

OUTLINE OF INSTRUCTION:

- I. Introduction to hazardous materials regulations
 - A. Federal rule making and the CFR
 - B. OSHA regulations
 - C. EPA regulations
 - D. DOT regulations
 - E. State/local regulations
 - F. NRC regulations

- II. OSHA regulations and standards
 - A. Toxic and hazardous substances
 - B. Hazard communication
 - C. OSHA laboratory standard
 - D. HAZWOPER
 - E. Hazardous materials (29 CFR 1910 Subpart H)
 - F. Process safety management

- III. EPA regulations and standards: hazardous wastes
 - A. RCRA requirements for generators
 - B. RCRA requirements for transporters
 - C. RCRA requirements for TSD facilities
 - D. NC DEHNR regulations

- IV. DOT regulations
 - A. Identification and classification
 - B. Hazardous materials table (HMT)
 - C. Packaging and labeling
 - D. Carrier requirements
 - E. Accident reporting

- V. Radioactive Materials
 - A. Handling radioactive materials packages
 - B. DOT CFR title 49 requirements
 - C. DOL (Dept. of Labor) Title 29
 - D. Permissible exposures and levels
 - E. Precautionary procedures
 - F. DOE Title 10 requirements
 - G. Waste disposal

- VI. EPA: Other regulations
 - A. CERCLA
 - B. TSCA
 - C. Clean Water Act
 - D. Clean Air Act

- VII. Topics in environmental management
 - A. Waste minimization
 - B. Biohazardous waste
 - C. laboratory waste

REQUIRED TEXTBOOKS AND MATERIALS:

Hazardous Materials, Substances & Wastes Compliance Guide. Kutztown, Pennsylvania: Hazardous Materials Publishing Company, 2005, or current edition.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 686-3652 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.