

**EHS 215
INCIDENT MANAGEMENT**

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course introduces management of hazardous materials and incidents. Topics include analysis and application of the Incident Command System from the discovery of a hazardous substance release to decontamination and termination procedures. Upon completion, students should be able to demonstrate an understanding of the roles and responsibilities of hazardous materials team members. This course provides OSHA HAZWOPER certification at the awareness, operations, and technician levels. Course Hours Per Week: Class, 3. Lab, 2. Semester Hours Credit, 4.

COURSE OBJECTIVES:

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

- a. Select and use of appropriate personal protective equipment for hazardous materials incidents.
- b. Apply basic hazard and risk assessment techniques.
- c. Understand basic hazardous materials terms and labeling conventions.
- d. Formulate an emergency response plan.
- e. Identify unknown materials by using survey instruments.
- f. Implement an appropriate incident command system.
- g. Understand chemical, radiological and toxicological terminology and behavior.
- h. Implement decontamination procedures during hazardous waste operations.
- i. Respond to laboratory and other small chemical spills.

OUTLINE OF INSTRUCTION:

- I. Hazardous waste operations regulations
 - A. Training requirements
 - B. HAZWOPER occupational safety and health programs
 - C. Medical surveillance programs
 - D. Site safety and health plans
 - E. Emergency response plans
 - F. Environmental requirements: illumination and sanitation
 - G. Hazard communication standard
 - H. Lockout/tagout procedures
 - I. Construction and other applicable standards

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- II. Health hazards
 - A. Exposures to chemical, biological, and radiological hazards
 - B. Principles of toxicology
 - C. Fundamentals of chemical hazards
 - D. Fire and explosion hazards of chemicals.
 - E. General safety hazards at hazardous waste sites

- III. Personal protection
 - A. Selection and maintenance of personal protective equipment
 - B. Respirator programs
 - C. Protections levels (A, B, C)
 - D. Decontamination procedures
 - E. Donning and doffing procedures
 - F. Hazard coding systems

- IV. Safety procedures at hazardous waste sites
 - A. Confined space entry procedures
 - B. Container sampling procedures and safety measures
 - C. Spill control
 - D. Use of material handling equipment.
 - E. Shipping and transport of hazardous waste

- V. Air sampling and monitoring equipment
 - A. Combustible gas meters
 - B. Oxygen level meters
 - C. Chemical indicator tubes
 - D. Monitoring radiation

- VI. Site control
 - A. Site preparation
 - B. Site work zones
 - C. The buddy system
 - D. Communication

- VII. Hazardous materials incidents
 - A. Classification of hazardous materials
 - B. Placarding
 - C. Special hazards of chemical incidents
 - D. Shipping configurations
 - E. Incident command system
 - F. Control zones
 - G. Resources for emergency responders

REQUIRED TEXTBOOKS AND MATERIALS:

EHS 215

Noll, Greg and Hildebrand, Michael. *Hazardous Materials: Managing the Incident*. Chester, Maryland: Red Hat Publishing, 2005.

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.