

**CUYAMACA COLLEGE**  
**COURSE OUTLINE OF RECORD**

**ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT 200 – HAZARDOUS MATERIALS  
MANAGEMENT (HMM) APPLICATIONS**

4 hours lecture, 4 units

**Catalog Description**

Requirements and applications of federal, state and local hazardous materials laws and regulations. Emphasizes program compliance with OSHA (Occupational Health and Safety Administration) Hazard Communication Plan, EPA (Environmental Protection Agency) Community Right-To-Know, Department of Transportation, Proposition 65, and Emergency Response Plan. Includes the legal framework of hazardous materials laws and requirements and step-by-step program development: written plan, obtaining/interpreting MSDS (Material Safety Data Sheets), labeling, emergency responders site map, shipping, handling, and training. Students will develop plans related to hazardous materials management through hands-on program development: DEH/HMD (Department of Environmental Health/Hazardous Materials Division) Hazardous Material Business Plan, OSHA Hazardous Communication Plan, components of CalARP (California Accidental Release Prevention) and RMP (Risk Management Plan), and planning and reporting functions.

**Prerequisite**

None

**Recommended Preparation**

“C” grade or higher or “Pass” in EHSM 100 or equivalent or concurrent enrollment

**Entrance Skills**

Without the following skills, competencies and/or knowledge, students entering this course will be highly unlikely to succeed:

- 1) Interpret laws and regulations pertaining to environmental, health and safety management and related programs.
- 2) Distinguish between EHSM agencies that regulate environmental management and OSH programs.
- 3) Recognize and apply appropriate terms common to the environmental health and safety industry.
- 4) Understand best management practices (BMP) and safe operation procedures (SOP) used in the EHSM industry.

**Course Content**

- 1) OSHA Hazard Communication Standard
  - a. Introduction and History
  - b. Requirements of Federal and State Hazard Communications Standards
  - c. Conducting Chemical Inventories of Hazardous Substances
  - d. Determining if a Substance or Mixture is Hazardous
  - e. Access to Employee Exposure and Medical Records
  - f. Interpreting MSDS
  - g. Proper Labeling of Hazardous Materials
  - h. PPE Communication Requirements
  - i. Manufacturer and Suppliers Duties and Trade Secret Protection
  - j. Regular Inspection and Enforcement Considerations
  - k. Compliance Strategies
  - l. Sources of Assistance and Information
- 2) Community Right-to-Know
  - a. Introduction and History
  - b. Requirements of Federal and State Community

- c. Hazardous Materials Release Response Plans and Inventory Requirements
  - d. Determining Whether a Business Handles Hazardous Materials
  - e. Hazardous Materials Business Plan Exemptions
  - f. Reporting Requirements and Methods
  - g. Business Plan Development
  - h. Trade Secret Protection
  - i. Penalties and Informant Rewards
  - j. Management of Extremely Hazardous Materials (RMPPs)
  - k. Regular Inspection and Enforcement Considerations
  - l. Compliance Strategies
  - m. Sources of Assistance and Information
- 3) Proposition 65
- a. Requirements of Law
  - b. Notification
  - c. Designated Employee Reporting
  - d. Function of the Science Advisory Panel
  - e. Regulatory Considerations
  - f. Compliance Strategies
  - g. Sources of Assistance and Information
- 4) Transportation
- a. Introduction and History
  - b. Requirements for Hazardous Materials Transportation
  - c. Hazardous Materials for Databases
  - d. Accident and Spill Information and Reporting Systems
  - e. Identification and Classification for Transportation
  - f. Determination of Proper Shipping Names
  - g. Containers for Hazardous Materials Transportation
  - h. Labeling
  - i. Packaging and Placarding
  - j. Carrier Requirements
  - k. Manifesting
  - l. Regulatory Inspection and Enforcement Considerations
  - m. Compliance Strategies
  - n. Sources of Assistance and Information
- 5) Asbestos
- a. Introduction and History
  - b. Regulatory Requirements
  - c. Uses of Asbestos
  - d. Legal Issues/Insurance
  - e. Notification and Documentation Requirements
  - f. Inspection/Assessment/Sampling
  - g. Regulatory Inspection and Enforcement Considerations
  - h. Compliance Strategies
  - i. Sources of Assistance and Information
- 6) Air Toxics
- a. Introduction and History
  - b. Requirements of Federal and State Air Pollution Standards
  - c. Local Air Pollution Control Authorities
  - d. Identification of Toxic Air Pollutants
  - e. The Role of Planning and Modeling
  - f. New Source Review and Permitting Considerations
  - g. Regular Inspection and Enforcement Considerations
  - h. Compliance Strategies
  - i. Sources of Assistance and Information

**Course Objectives**

Students will be able to:

- 1) Describe the function and services of agencies that regulate specific hazardous materials.
- 2) Accurately complete a hazardous materials manifest.
- 3) Read and interpret hazardous materials labels.
- 4) Describe generator regulatory compliance concerning hazardous materials.
- 5) Perform a rudimentary site investigation of a hazardous materials generator.
- 6) Demonstrate proper sampling procedures of hazardous materials.
- 7) Describe proper transportation and shipping of hazardous materials.

**Method of Evaluation**

A grading system will be established by the instructor and implemented uniformly. Grades will be based on demonstrated proficiency in subject matter determined by multiple measurements for evaluation, one of which must be essay exams, skills demonstration or, where appropriate, the symbol system.

- 1) Quizzes and exams which measure students' ability to identify the requirements and applications of federal, state and local hazardous materials laws and regulations including program compliance with the OSHA Hazard Communication Plan, EPA Community Right-To-Know, Department of Transportation, Proposition 65, and Emergency Response Plan.
- 2) Quizzes, exams, and exercises which measure students' ability to obtain and interpret MSDS, read hazardous materials labels and emergency responders site map, and describe the shipping and handling of toxic waste.
- 3) Laboratory exercises and/or projects which measure students' ability to develop plans related to hazardous materials management, including a Hazardous Material Business Plan, OSHA Hazardous Communication Plan, and a Spill Prevention Control and Countermeasure Plan, each of which addresses basic DOT hazardous materials requirements and components of a CalARP and RMP, as well as planning and reporting functions.

**Special Materials Required of Student**

None

**Minimum Instructional Facilities**

Smart classroom

**Method of Instruction**

- 1) Lecture and discussion

**Out of Class Assignments**

- 1) Reading assignments
- 2) Writing assignments
- 3) Projects
- 4) Reports

**Texts and References**

- 1) Required (representative example): Standard industry materials to be provided
- 2) Supplemental: None

**Student Learning Outcomes**

Upon successful completion of this course, students will be able to:

- 1) Describe the function and services of agencies that regulate specific hazardous materials.
- 2) Read and interpret hazardous materials labels as listed from suppliers, manufacturers or transporters, including Globally Harmonized pictograms.
- 3) Describe proper transportation and shipping of hazardous materials using generally acceptable modes of transportation as examples.