COURSE INFORMATION FORM

DISCIPLINE
EHSS

COURSE TITLE
Transportation and Storage of Hazardous Materials

CR.HR.  3  LECT HR.  3  LAB HR.  ________  CLIN/INTERN HR.  ________  CLOCK HR.  ________

CATALOG DESCRIPTION

This course provides detailed information required for the handling, transportation, and storage of hazardous materials. Procedures for safe handling, storing, and preparing hazardous materials for shipment by all modes of transport as required by applicable Department of Transportation (DOT) regulations will be covered. Students will use reference materials, labeling, and preparing materials for shipment. Students will also learn the critical competencies required for properly responding to hazardous material emergencies. Upon satisfactory completion students will receive a 40-hour HAZMAT certificate in 49 CFR 171-180.

PREREQUISITES

None

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)

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

1. Describe who must comply with the Hazardous Materials Regulations (HMR), which packages and containers the HMR apply to, what training is required, and what the possible penalties are for violating the HMR.
2. Define the term hazardous materials, hazardous substances, marine pollutant, and sever marine pollutant, shipping paper, limited quantities and packaging.
3. Identify information required for shipping a particular hazardous material, such as the proper shipping name, the hazard class or division, ID number, packing group, label codes, and packaging.
4. Navigate through the Hazardous Materials Regulations and Hazardous Materials Table to identify the proper shipping name for a hazardous material and the basic description for a shipment of that hazardous material.
5. Describe the guidelines related to the emergency response to hazardous material releases in transit.
6. Identify record retention requirements for shipping papers relating to hazardous materials.
7. Apply the requirements for marking, labeling and placarding hazardous materials packages, freight containers, and/or transportation vehicles and any exceptions to these requirements.
GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

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<th>Outcomes</th>
<th>ESO</th>
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PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Students will demonstrate the ability to apply foundational skill in an industrial setting, safely and to industry guidelines.
2. Students will think critically and apply problem-solving skills.
3. The program will graduate individuals who exhibit competence in the entry-level skills of technical profession environmental health and safety technology.
4. The program will graduate individual who can interact and communicate with managerial, supervisory, labor and external public using a combination of skills for a clear exchange of ideas and information.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes may be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Assignments, (1-7)
2. Written examinations, (1-7)
3. Student participation and In-class discussions, (1-7)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. General Information, Regulations, and Definitions

II. Shippers-General Requirements For Shipments
   A. Hazardous Materials Table
   B. Special Provisions
   C. Emergency Response Information
   D. Training Requirements
   E. Security Plans
   F. Hazardous Materials Communications
      1. Shipping Papers
      2. Marking
      3. Labeling
      4. Placarding

III. Special Requirements for:
   A. Carriage by Rail
   B. Carriage By Aircraft
   C. Carriage By Vessel
   D. Carriage By Public Highway

IV. Specifications*
   A. Packagings
   B. Continuing Qualification and Maintenance of Packagings
   C. Specifications For Tank Cars