

El Paso Community College

Syllabus

Part II

Official Course Description

SUBJECT AREA	<u>Fire Technology</u>
COURSE RUBRIC AND NUMBER	<u>FIRT 1445</u>
COURSE TITLE	<u>Hazardous Materials II</u>
COURSE CREDIT HOURS	<u>4 3 :</u> Credits Lec Lab

I. Catalog Description

Instructs in mitigation practices and techniques to effectively control hazardous material spills and leaks. **Prerequisite:** FIRT 1315. (3:3).

II. Course Objectives

- A. Describe the primary components of applicable federal OSHA, EPA and DOT regulations.
- B. List the terms used by each regulatory agency to define chemicals that have the potential to cause harm to health, safety and the environment.
- C. List the terms used by each regulatory agency to describe chemicals that have the potential to cause harm to health, safety and the environment.
- D. List the NFPA standards relating to hazardous materials emergency response.
- E. List routes of exposure, health effect variables, adverse health effects and environmental stressors.
- F. List the exposure levels that are permissible and those that may be harmful.
- G. List the components of an Incident Command System and describe an appropriate structure for a hazardous materials incident.
- H. Describe the critical elements that are required to insure safe and effective operations at a hazardous materials emergency.
- I. Describe methods of assessing incident progress, termination procedures and post incident analysis.
- J. Develop a site safety plan when provided a scenario involving a hazardous materials release. Incident command structure (ICS) and hazard information obtained by the use of reference materials will be included in the plan.
- K. Define a hot, warm and cold zone by using concentration readings provided for multiple locations.
- L. Identify hazardous materials containers and list the types of chemicals that they may contain.
- M. List the hazards that containers present when they fail, including vapor cloud explosions and BLEVEs.
- N. List the types of hazards and containment systems associated with different occupancies.
- O. Demonstrate the proper methods of selecting, donning, using, doffing and maintaining respiratory protective equipment.
- P. Demonstrate the proper methods of selecting, donning, using, doffing and maintaining chemical protective clothing.
- Q. Demonstrate proper set-up operation of a decontamination corridor.
- R. Select an appropriate decontamination solution for different types of contaminants.
- S. Demonstrate the proper methods of selecting, operating and interpreting results from various types of monitoring and identification equipment.
- T. Demonstrate the proper methods of maintaining and calibrating various types of monitoring and identification equipment.
- U. Demonstrate the proper methods required to control leaks from various types of containers.
- V. Demonstrate the proper methods of applying the chlorine A, B and C kits to leaking chlorine containers.
- W. Demonstrate proper grounding and bonding techniques.
- X. Select an appropriate sorbent agent and demonstrate proper use.
- Y. Demonstrate proper liquid pump transfer procedures.

III. THECB Learning Outcomes (WECM)

1. Identify methods of mitigating a hazardous material incident.
2. Describe the components of a hazardous incident management system including scene control, protective clothing and equipment, spill and leak control, and decontamination.

IV. Evaluation

Attendance Policy: Students absent for two more class periods without a valid excuse as determined by the instructor may be dropped from the course. Any exam or assignment not completed as a result of an unexcused absence will receive a grade of "0" for that exam or assignment.

Students who do not attend class before or on the census date listed in the Credit Course Schedule and the Course Calendar and have not contacted the instructor with a valid excuse will be dropped from the course.

Tardiness Policy: Students must be seated and ready to begin class at the scheduled time. Students tardy for two or more class periods without a valid excuse as determined by the instructor may be dropped from the course.

Expect class to last the entire scheduled time. Students may not leave class early without a valid excuse or without having made arrangements with the instructor. Students doing so will be considered absent for that class period.

Withdrawal Policy: Students who desire to withdraw are responsible for initiating withdrawal action through the EPCC Registrar's Office according to the policy in the Credit Class Schedule. **After the drop date listed in the Credit Class Schedule and the Course Calendar, students will receive a grade based upon all required items. Items not completed will be given a grade of "0".**

Students requesting an Incomplete, "I", must comply with EPCC policies and procedures listed in the Credit Class Schedule.

Cheating Policy: Students determined to be cheating on an exam or plagiarizing another student's assignment will be given a grade of "0" for that exam or assignment. An incident report documenting the circumstances will be prepared by the Instructor and submitted to the Instructional Coordinator of Fire Technology and then forwarded to the Instructional Dean Occupational Education. A copy of the report will be provided to the student. A second such incident will be grounds for dismissal of the student from the course with a grade of "F".

Grading Scale

- A: 90 - 100
- B: 80 - 89
- C: 75 - 79
- D: 70 - 74
- F: 0 - 69

V. Disability Statement (American with/Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.