

CENTER FOR INNOVATIVE TECHNOLOGIES
MASTER COURSE DOCUMENT

EVT 115 OSHA 40-Hour HAZWOPER / HazMat Training Course

Course Description: A course on the OSHA-specific training requirements under 29 CFR § 1910.120 for 40-hour “General Site Worker” hazardous waste operations and emergency response (HAZWOPER). Topics include: avoiding injury on a hazardous waste site, basic concepts for health and safety programs, and employment of spill control, containment and mitigation strategies. Students who complete the course successfully earn a certificate.

Prerequisites(s): AFL 085 and AFM 095, or appropriate placement test scores

Corequisite(s): No corequisite

Lecture Hours: 35	Lab Hours: 5	Credit Hours: 3
Lab Fee: \$70	Supplemental Fee: \$75	Purpose:
<input type="checkbox"/> Transfer Assurance Guide Course (TAG)	<input type="checkbox"/> Transfer Module Course (TM)	
Course Format: Lec/Lab		Grading: A/B/C/D/F/I
Delivery Method: <input type="checkbox"/> Web <input type="checkbox"/> Hybrid <input checked="" type="checkbox"/> Classroom		
Semesters Offered: <input checked="" type="checkbox"/> Fall <input checked="" type="checkbox"/> Spring <input checked="" type="checkbox"/> Summer		

Course Primary Text:

Title: OSHA 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Student Book	Edition: October 2019
Author(s): Bob Cutajar	
Publisher: Cincinnati State College - Workforce Development Center (WDC)	

Supplemental Materials:

USDOT Emergency Response Guide (ERG) – 2020 edition
NIOSH Pocket Guide to Chemical Hazards – 2010 edition (until revised)

EVT Program Outcomes:

1	Apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined environmental engineering problems.
2	Design solutions for well-defined environmental engineering technology problems and assist with the engineering design of systems, components, or processes appropriate to the discipline.
3	Apply written, oral and graphical communication in well-defined technical and non-technical environments, while identifying and using appropriate technical literature.
4	Perform standard tests, measurements and experiments then analyze and interpret the results.
5	Perform effectively as a member of a technical team.

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40-hour HAZWOPER Course Outcomes:

1	Identify hazardous materials. (hazard & risk assessment)
2	Demonstrate the correct use of air monitoring and calibration equipment.
3	Demonstrate the correct use of personal protective equipment and chemical protective clothing.
4	Properly don and doff an air-purifying respirator (APR) and self-contained breathing apparatus (SCBA). In addition, select the appropriate APR cartridge(s) and filter(s) based on a specific hazard.
5	Identify and explain decontamination.
6	Explain basic chemical and toxicological terminology and behaviors.
7	Perform spill control / containment operations.
8	Demonstrate the ability to function within an assigned role in the Incident Command System or as part of a site Environmental Health & Safety Plan.
9	Understand incident termination procedures.
10	Explain the key elements of the HAZWOPER Medical Surveillance Program.

Course Topics: Note Class Times are 8am to 5 pm each day

Day 1	Modules 1 through 4: Introduction Basic Chemistry and Toxicology Sources of Information Air Monitoring
Day 2	Review Class Homework Modules 5 through 7: Respiratory Protection Levels of Protection Chemical Protective Clothing Labs: Respiratory Protection HAZMAT Suit Demonstration Assigned EVT Student Homework # 1
Day 3	Review Classroom Homework Modules 8 through 10: Spill Control & Containment Decontamination Containers & Drums Labs: Chemical Protective Clothing dress-out Decontamination (DECON) Drum Handling & Sampling Turn-in EVT Student Homework # 1 (no later than 12 noon) Assign EVT Student Homework # 2
Day 4	Review Homework: Chemical Profiling Homework Modules 11 through 14: Safety Management & Emergency Planning NIMS / ICS Site Assessment, Strategy and Tactics Medical Surveillance Labs: DECON Line SKED Mini-Drills & Table-top Exercises Turn-in EVT Student Homework # 2 (no later than 12 noon)
Day 5	Final Exercise Briefing / End-of-Course Practical Exercise. Post-Exercise "Hot Wash" (After Action Review) Course Review Course Final Examination

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Methods of Evaluation/Assessment

☒ Formative: ☒ Summative

List assessment activities (e.g. quizzes, discussions, essays, research papers, debates, oral presentations, exams):

02 – Graded Homework Assignments
03 – Group Homework Assignments
19 – Skill/Demonstrated Competencies Skills (assessed through the entire course)
Full-Scale HAZMAT Team Final Exercise (entire class)
Team Briefings (conducted as part of Final Exercise)
OSHA 40-Hr HAZWOPER End-of-Course Final Examination (written)

Course Keeper: Bob Cutajar
Ann Gunkel

Date Completed: 7/6/2020
(original: 8/22/2013)
Reviewed & Revised: