

## **HAZWOPER Course Description; Jan 21, 22, 28, and 29, 2022**

**EPA Course (165.15) Emergency Response to Hazardous Material Incidents**

**Dr. April Ulery, Professor; [aulery@nmsu.edu](mailto:aulery@nmsu.edu); 575-649-3250 mobile**

This course meets and exceeds the Occupational Safety and Health Administration's (OSHA) requirement of a minimum of 24 hours of training for a Hazardous Materials Technician, 29 CFR 1910.120, paragraph (q).

- ❑ Class size: 12 Minimum; 30 Maximum
- ❑ All graduates receive an NMSU College of Agricultural, Consumer and Environmental Sciences Certificate of Completion;
- ❑ Environmental Protection Agency (EPA) certificates of training could be requested for successful graduates that present positive results on OSHA Respirator Medical Evaluation 29CFR 1910.134 Appendix C.

**This course satisfies training requirements for members of hazardous materials response teams and for environmental personnel requiring access to superfund sites.**

ERTHMI is an interactive course that incorporates hands-on training and leadership skills into two simulations that are designed to test the lessons learned during the course. The course provides emergency response personnel with the information and skills needed to recognize, evaluate, and control an incident involving the release or potential release of hazardous materials.

Instructional methods used are online lectures, homework assignments, classroom problem-solving sessions, and exercises. Class members participate in two simulations designed to apply and test the lessons learned during the week. Participants will wear fully encapsulating suits and chemical splash gear while participating in person for mock scenarios. Those who are unable to "dressout" in suitable protection will stay at least six feet away from others, wear approved face masks, and wash their hands frequently.

All students will practice the CDC COVID safety recommendations including:

- self-monitoring using guidelines from the Aggie Health and Wellness Center;
- 'remaining at home if ill';
- wearing an approved facemask when on campus;
- maintaining six feet social distancing as work duties permit;
- cleaning and disinfecting countertops, common areas, and shared equipment during and after use; and
- practicing frequent hand washing.

**Location:** New Mexico State University, Academic Research Building C, Room 110; Free parking is available on the NE corner of Standley and Locust Drives in dirt Lot 96

### **Course focus:**

- Recognition and evaluation of a hazardous materials incident
- Protecting response personnel
- Identifying and using basic response resources
- Implementing basic control measures
- Refining decision-making skills
- Protecting the public

### **Course topics:**

- Regulations supporting and authorizing training requirements
- Chemical and physical properties of hazardous materials
- Toxicology
- Recognition and identification of hazardous materials
- Direct-reading instruments
- Standard operating procedures
- Personal protection and safety
- Sources of information for responders

**Course Materials:** Identified through the US-EPA Office of Emergency and Remedial Response, Emergency Response Division, and are required materials for course delivery.

- Emergency Response to Hazardous Material Incidents (EPA 165.15)
- Standard Operating Safety Guides; EPA
- National Institute for Occupational Safety & Health (NIOSH) Pocket Guide to Chemical Hazards
- U.S. Department of Transportation, 2016 Emergency Response Guidebook (ERG)

**Course Support Equipment:**

- Self-contained Breathing Apparatus (SCBA's)
- Level “B+” Training suits (fully encapsulating, but not air-tight)
- Direct-reading instruments
  - Combustible Gas Indicator (GCI)
  - Portable single gas oxygen meter
  - Ludlum Model #19 radiation meter
  - Personal Protection Equipment, Level “B” and below
  - Decontamination kits

**Audio-Visual Aids:**

- Incident Command System
- Use of SCBA's
- Fuel Tanker Incidents
- Plugging and Patching Techniques
- Confinement and Containment
- Decontamination Procedures
- *Accidents Will Happen: Small Town Guide to Hazardous Materials Response*
- Power Point Slide show correlated with Sections 1 through 13 of the student course book which will be made available online to the students using Canvas.

**Guest Lectures and Demonstrations:**

**Eric Crespin**, Dona Ana County Fire and Emergency Services; **Nicholas Beltran**, Chemistry instructor; **David Schoep**, NMSU Radiation Safety Officer; **Steve Moates**, WSMR Safety, and others.

**8-hr Refresher:** Formal 8-hour annual refresher training for previous graduates of the course will be available in person, space permitting, for interested participants. Specific topics will be reviewed on the first day of class both as an introduction to new students and a review to former students. We will take advantage of former students’ experience and knowledge to help educate the new students including sharing real life examples from work and tips for getting the most out of the class.

## Course Agenda

### EMERGENCY RESPONSE TO HAZARDOUS MATERIAL INCIDENTS (165.15)

Course Dates: January 21, 22, 28, 29, 2022

Presented online and at New Mexico State University, Academic Research Building C, Room 110, Las Cruces, NM

Course Director:

**Dr. April Ulery, NMSU-Plant & Environmental Sciences Dept.;** [aulery@nmsu.edu](mailto:aulery@nmsu.edu); 575-649-3250 cell

Course Instructors:

Mr. David Schoep, NMSU-Environmental Health & Safety; [dschoep@nmsu.edu](mailto:dschoep@nmsu.edu)

Mr. Steven Moates, WSMR

Dr. Nicholas Beltran, NMSU-Chemistry; [beltrann@nmsu.edu](mailto:beltrann@nmsu.edu)

Please silence cell phones and quietly leave and re-enter the room if you need to answer an emergency call or use the facilities.

<b>Timeline:</b>	<b>Subject:</b>	<b>Activity:</b>
<b>Friday, Jan 21; DAY-ONE</b>		
8:00	Sign-In, Orientation & Introduction Certificate Contact Address; Course Test; Facilities; Sharing by former students	(Introductions)
	Refresher and introduction to HAZ MAT concepts	(Chapter 1)
	Safety Plans and Standard Operating Procedures	(Chapter 2)
	Incident Command System	(Chapter 3)
	Characteristics of Hazardous Materials	(Chapter 4)
noon – 1:00	lunch on your own	
1:00 - 1:30	Introduction to Tabletop Exercise	
2:00	Radiation Monitoring Instruments (David Schoep)	(Chapter 15)
3:30	Toxicology	(Chapter 5)
	Information Resources	(Chapter 6 + exercise)
	Homework: Look around your home, commute, school, work and identify potential hazards and imagine a scenario that might require an emergency response. What are some of the conditions and properties that could cause a hazardous incident and affect the response to that incident? Be ready to discuss at 8:00 am Saturday morning.	
5:00	Conclude Day #1	(Homework and videos)

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**Saturday, Jan 22; DAY TWO**

8:00	Sign-in Homework Discussion & Tabletop exercise ideas	(discussion)
	Identification of Hazardous Materials	(Chapter 7)
11:00 – 11:30	Inspect Level A and B suits (Steve Moates)	(activity)
11:30 – 12:30	Lunch on your own	
12:30 – 1:15	Dress out – (Steve Moates)	(activity)
1:15	Levels of Protection	(Chapter 9)
3:00 – 4:00	Tabletop Exercise (Nick Beltran) Discuss Chemical Protective Clothing Homework assignment	
5:00	Conclude Day #2	(Homework and videos)

**Homework: Complete the seven scenarios for personal protective clothing and equipment, watch all videos posted on each module, and complete quizzes.**

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**Friday, Jan 28; DAY THREE**

8:00 – 9:00	Intro for Refreshers; Summary & Homework Review	(Discussion)
9:00 – 10:30	Chemical Protective Clothing	(Chapter 10)
10:30 – 11:00	Instrumentation and response to hazmat incidents (Luis Rey Morales)	
11:00 – 12:00	Monitoring and Direct Reading Instruments (gas readings, O <sub>2</sub> , Draeger tubes)	(Chapter 14)
12:00 – 12:30	Lunch on your own	
12:30	Confinement & Containment	(Chapter 12)
	Decontamination	(Chapter 17)
4:30	Team organization Homework: complete SDS exercise and watch any remaining videos	(discussion)
5:00	Conclude Day #3	

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### **Saturday, Jan 29; DAY FOUR**

8:00	Introductions to new refreshers and integration into team (discussion)
	Size up, Strategy, and Tactics (Chapter 8)
	Scene Control, Reconnaissance & Entry (Chapter 11)
	Complete any material not previously covered – action levels, mitigation, controls, ...
	Response Organization (Chapter 16)
	Summary and comprehensive course review
11:30-12:30	Lunch on your own
	Conduct Emergency response to hazardous material Incident
	Incident Self-Evaluation/de-brief/clean-up
	Course Examination
	Course Evaluations & Course Certificates
5:00	Conclude Course

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### **Course Notes & Reminders:**

Be sure to “sign in” with instructor every half day on Canvas (F/S am and pm) for your OSHA certificate.

For NMSU students, grades are based on class engagement (50%) and the open book exam (50%). **The open book exam requires a 70% minimum score to pass the course.** Attendance for the entire course is mandatory.

Except for beginning times (8:00 am each morning), all other times on the agenda are approximate and subject to change. The time spent on homework and watching videos outside of class counts towards your certification.

**Students with Disabilities:** If you have, or believe you have, a disability and would benefit from accommodations, you may wish to self-identify. You can do so by providing documentation to the Services for Students with Disabilities (SSD) Office located at Garcia Annex (phone: voice 646-6840, TTY 646-1918). If you are already registered with the SSD office and need accommodations, please provide your “Accommodation Memo” from the SSD at the beginning of class.

If you have a condition that may affect your ability to exit safely from the premises in an emergency or that may cause an emergency during class, you are encouraged to discuss this in confidence with the instructor and/or the Coordinator for SSD. All information will be held in strict confidence.

To include on your resume under Certifications and Training:

OSHA 40-hr course “First Response to Hazardous Materials Incidents” (Hazardous Materials Technician Level - 29 CFR 1910.120, paragraph q). Certification: January 29, 2022

*\*Be sure and attend 8 hours of refresher annually to maintain your certification!*