

INTRODUCTION TO THE CLASS

Welcome to the Cabrillo College Public Safety Departments Fire Science on-line curriculum. We are proud to present the course *Introduction to Hazardous Materials* online. This is an elective class toward meeting the requirements for an Associate Degree in Fire Protection Technology. This class is part of the State of California Uniform Fire Science Curriculum and is recognized in each community college offering fire science classes in the State of California.

In this document, we will be doing the following:

1. Presenting an orientation to the class.
2. Discussing the requirements of the class.
3. Presenting the Session topics.
4. Discussing the course evaluation process.
5. Your first assignment will be to go to the ASSIGNMENT TAB and input a biography about yourself. This will get you familiar with this technique -- one that we will be using throughout the class.

Weekly Schedule:

Week #1 --- Orientation and Introduction
LEVELS OF HAZMAT RESPONSE

Week #2 --- INTER-AGENCY RESPONSIBILITY
HAZMAT DEFINITIONS & PROPERTIES

Week #3 --- TOXICOLOGY

Week #4 --- HAZMAT RESPONSE PROCESS
HAZMAT RECOGNITION & SAFETY

Week #5 --- DOT PLACARDING & LABELING

Week #6 --- DOT EMERGENCY RESPONSE GUIDEBOOK

Week #7 --- HIGHWAY/RAILROAD CONTAINER
PROFILES & BLEVE

Week #8 --- PESTICIDE LABELING SYSTEM
NFPA 704 SYSTEM
DOT SHIPPING PAPERS & MSDS SHEETS

Week #9 --- **MIDTERM EXAM**

Week #10 --- INCIDENT SIZE-UP, ISOLATION & ZONING
SAFETY RESPONSE & INCIDENT OPERATIONS

Week #11 --- EVACUATION, PROTECTIVE CLOTHING
& DECONTAMINATION PROCEDURES

Week #12 --- HAZMAT /INCIDENT COMMAND SYSTEM

Week #13 --- TACTICAL PRIORITIES
DEFENSIVE CONTROL ACTIONS

Week #14 --- CASE HISTORIES

Week #15 --- TERRORISM

Week #16 --- **FINAL EXAM**

Course Syllabus

Course Title: FT-7 Introduction to Hazardous Materials

Instructor: Norcliff Wiley, Deputy Fire Chief--Retired
Salinas Fire Department

Unit Credits: 3 Semester Units

Transfer Credit: CSU

Description: Presents emergency handling of toxic and flammable materials, fuels, oxidizers, explosives, as well as tactical considerations and hazard control for transit and release mitigation.

Student Learning Outcome:

1. Evaluate fire protection problems associated with oxidizing agents, explosives and flammable liquids, solids and gases in storage and transit.
2. Evaluate fire protection problems of hazardous materials in fixed storage facilities and in marine, air, rail, highway and pipeline modes of transportation.
3. Analyze potential environmental problems and associated health risks of corrosive, toxic and radioactive materials.

Course Content:

1. Federal and State Laws regarding hazardous materials emergency response.
2. Responsibilities of multiple public agencies in hazmat emergencies.
3. Definitions of hazardous material terminology.
4. Systematic emergency response process.
5. Department of Transportation placard system.
6. Highway and Railcar descriptions and profiles.

7. Hazards of pesticides and the pesticide labeling system.
8. Fixed facility hazardous material placard system.
9. Incident size-up and safety response procedures.
10. Evacuation, protective actions and decontamination procedures.
11. Incident Command System for hazardous material response.
12. Hazardous Materials control strategy and tactics.
13. Case history analysis.

Methods of Instruction:

- **Read appropriate chapter in textbook.**
- **Review PowerPoint PDF for each session.**
- **Review and comment on Classroom Discussion Topics.**
- **Complete weekly written short essay or worksheet assignments (by Sunday).**
- **Take an online quiz for weekly sessions (by the following Monday).**

Evaluation: VERY IMPORTANT!

- 1. Credit will be given for required written assignments completed.**
- 2. Credit will be given for completion of the online quizzes.**
- 3. Credit will be given for any active participation in online discussion topics.**
- 4. Credit will be given for any approved extra credit.**

The remainder of a student's grade will be based on required exams, including:

- 5. Midterm, and**
- 6. Final Examination**

Texts: (Required)

The First Responders Field Guide to Hazmat & Terrorism Emergency Response
2010 Edition
Jill Meryl Levy, Firebelle Publications
ISBN: 0-9651516-4-6

2020 Emergency Response Guidebook
U.S Department of Transportation

Field Operations Guide
ICS 420-1
Governors Office of Emergency Services—FIREScope
Riverside, California

COURSE SCHEDULE

<u>DATE</u>	<u>WEEK#</u>	<u>Topics</u>
1/29/24	1	Orientation and Introduction
2/05/24	2	LEVELS OF HAZMAT RESPONSE INTER-AGENCY RESPONSIBILITY HAZMAT DEFINITIONS & PROPERTIES
2/12/24	3	TOXICOLOGY
2/19/24	4	HAZMAT RESPONSE PROCESS HAZMAT RECOGNITION & SAFETY
2/26/24	5	DOT PLACARDING & LABELING
3/04/24	6	DOT EMERGENCY RESPONSE GUIDEBOOK
3/11/24	7	HIGHWAY/RAILROAD CONTAINER PROFILES & BLEVE
3/18/24	8	PESTICIDE LABELING SYSTEM NFPA 704 SYSTEM DOT SHIPPING PAPERS & MSDS SHEETS
3/25-30/24		SPRING BREAK!
4/01-08/24	9	MIDTERM EXAM WEEK
4/08/24	10	INCIDENT SIZE-UP, ISOLATION & ZONING
4/15/24	11	EVACUATION, PROTECTIVE CLOTHING & DECONTAMINATION PROCEDURES
4/22/24	12	HAZMAT/INCIDENT COMMAND SYSTEM
4/29/24	13	TACTICAL PRIORITIES DEFENSIVE CONTROL ACTIONS
5/06/24	14	CASE HISTORIES
5/13/24	15	TERRORISM
5/20-25/24	16	FINAL EXAM WEEK

Hardware and Software Requirements:

Taking this course using your cell phone alone is **not** recommended.

You will need regular access to a computer and one of the following browsers:

Internet Explorer
Google Chrome
Mozilla Firefox
Safari
Brave

As well the free software from: <http://www.adobe.com/products/acrobat/readstep2.html>

Adobe Reader (most current version)

It is required to have access to Word Processing software that can save documents to **.doc** or **.docx format** for submitting Assignments.

Although not required, it would certainly help to have a current version of: Microsoft Office (or at minimum Microsoft Word).