

# FT R232: HAZARDOUS MATERIALS INCIDENT COMMANDER

## Originator

tamara\_crudo

## College

Oxnard College

## Attach Support Documentation (as needed)

HM Form 300 HM Outreach Certificate Processing Schedule (6-2019).pdf  
HM Form 120 Certification process (6-2019).pdf

## Discipline (CB01A)

FT - Fire Technology

## Course Number (CB01B)

R232

## Course Title (CB02)

Hazardous Materials Incident Commander

## Banner/Short Title

Haz Mat IC

## Credit Type

Credit

## Start Term

Spring 2023

## Catalog Course Description

This course is designed for the working firefighter, and provides participants with the capability to assume the role of Incident Commander, as defined in the Occupational Safety and Health Act Hazardous Waste Operations (OSHA HAZWOPR) regulation, during an emergency response to an actual or potential hazardous materials release.

## Taxonomy of Programs (TOP) Code (CB03)

2133.00 - \*Fire Technology

## Course Credit Status (CB04)

D (Credit - Degree Applicable)

## Course Transfer Status (CB05) (select one only)

B (Transferable to CSU only)

## Course Basic Skills Status (CB08)

N - The Course is Not a Basic Skills Course

## SAM Priority Code (CB09)

C - Clearly Occupational

## Course Cooperative Work Experience Education Status (CB10)

N - Is Not Part of a Cooperative Work Experience Education Program

## Course Classification Status (CB11)

Y - Credit Course

## Educational Assistance Class Instruction (Approved Special Class) (CB13)

N - The Course is Not an Approved Special Class

## Course Prior to Transfer Level (CB21)

Y - Not Applicable

**Course Noncredit Category (CB22)**

Y - Credit Course

**Funding Agency Category (CB23)**

Y - Not Applicable (Funding Not Used)

**Course Program Status (CB24)**

1 - Program Applicable

**General Education Status (CB25)**

Y - Not Applicable

**Support Course Status (CB26)**

N - Course is not a support course

**Field trips**

Will not be required

**Grading method**

(L) Letter Graded

**Alternate grading methods**

(E) Credit by exam, license, etc.

**Does this course require an instructional materials fee?**

Yes

**Fee Amount**

183.57

**What personal property or material does the student need that the fee pays for?**

1 @ 160.00 EACH REGISTRATION/CERTIFICATION FEE PAID TO CSTI (CALIFORNIA SPECIALIZED TRAINING INSTITUTE).  
1@ \$23.57 EACH FOR "HAZARDOUS MATERIALS INCIDENT COMMANDER" MANUAL, THIS IS THEIRS TO KEEP.

**Identify a specific course objective that cannot be met but for the use of the materials at issue.**

CERTIFICATES CONTRIBUTE TO THE PROFESSIONAL GROWTH OF FIREFIGHTERS PERSUING THE COMPANY OFFICER CERTIFICATION.

**Describe how the material has continuing value outside the classroom.**

INDUSTRY CERTIFICATIONS STAY WITH THE STUDENT FOR LIFE AND AID IN THE JOB PLACEMENT AND CAREER ADVANCEMENT.

**Is the amount of materials the students must supply, or the amount that they receive in exchange for the fee that is charged, consistent with the amount of material necessary to meet the required objectives of the course?**

Yes

**If students pay a fee rather than furnishing their own materials, why do they have to pay a fee rather than supply the materials themselves? Is the district/college the only source of the materials? If not, is there a health or safety reason for the district/college to supply the materials? If not, will the district/college supply the materials more cheaply than they can be obtained elsewhere, AND at the district's/college's actual cost?**

THE OXNARD COLLEGE REGIONAL FIRE ACADEMY IS A STATE FIRE MARSHAL ACCREDITED TRAINING FACILITY WHOSE PERSONNEL ARE CERTIFIED TO VERIFY STUDENT ELIGIBILITY FOR CERTIFICATES THAT ARE REQUESTED BY THE PROGRAM ADMINISTRATOR AND/OR HIS DESIGNEE. STUDENTS CANNOT OBTAIN CERTIFICATES ON THEIR OWN.

**Specify the month and year in which the fee amount, or list of material provided, was reviewed by the host department to ensure that the preceding standards continue to be met.**

November, 2020

**Repeatable for Credit**

No

Is this course part of a family?

No

**Units and Hours**

**Carnegie Unit Override**

No

**In-Class**

**Lecture**

**Minimum Contact/In-Class Lecture Hours**

40

**Maximum Contact/In-Class Lecture Hours**

40

**Activity**

**Laboratory**

**Minimum Contact/In-Class Laboratory Hours**

0

**Maximum Contact/In-Class Laboratory Hours**

0

**Total in-Class**

**Total in-Class**

**Total Minimum Contact/In-Class Hours**

40

**Total Maximum Contact/In-Class Hours**

40

**Outside-of-Class**

**Internship/Cooperative Work Experience**

**Paid**

**Unpaid**

**Total Outside-of-Class**

**Total Outside-of-Class**

**Minimum Outside-of-Class Hours**

80

**Maximum Outside-of-Class Hours**

80

**Total Student Learning**

**Total Student Learning**

**Total Minimum Student Learning Hours**

120

**Total Maximum Student Learning Hours**

120

**Minimum Units (CB07)**

2

**Maximum Units (CB06)**

2

**Prerequisites**

FT R231

**Limitations on Enrollment**

Others (specify)

**Other Limitations on Enrollment**

Hazardous Materials First Responder Operational certification issued by State Fire Training or California Specialized Training Institute or equivalent as determined by the Fire Technology Program Chair, or Instructor of Record, or Division Dean.

**Entrance Skills****Entrance Skills**

Students shall have a thorough knowledge of the Incident Command System at Hazardous Materials Incidents. Students shall have a working knowledge of Hazardous Materials apparatus, equipment, PPE's and tools.

**Prerequisite Course Objectives**

FT R231-Describe and explain the basic terminology used in the Incident Command System.

FT R231-Analyze how the incident organization expands or contracts to meet operational needs of the incident or event.

FT R231-Assemble a list of the essential elements of information involved in transfer of command.

FT R231-Assign organizational positions with appropriate ICS sections.

FT R231-Compare each of the principal facilities used in conjunction with ICS and explain the purpose and use of each.

FT R231-Assess which facilities may be located together at an incident or event.

FT R231-Assess how the various incident facilities are used and managed to support an incident or event.

FT R231-Identify appropriate map symbols associated with incident facilities.

FT R231-Investigate how resource status is changed, how notification of changes are made, and how status is maintained at an incident or event.

**Requisite Justification****Requisite Type**

Prerequisite

**Requisite**

FT R231

**Requisite Description**

Course in a sequence

**Level of Scrutiny/Justification**

Content review

**Student Learning Outcomes (CSLOs)**

**Upon satisfactory completion of the course, students will be able to:**

- |   |   |
|---|---|
| 1 | Demonstrate the communication skills needed for reporting hazardous materials incident conditions and commanding resources at an emergency incident.                        |
| 2 | Demonstrate the critical thinking, communication and decision making skills necessary to develop and implement a plan of action and manage a hazardous materials emergency. |
| 3 | Demonstrate the ability to communicate service demands and to identify the plans used to assist in their mitigation.  |

**Course Objectives**

**Upon satisfactory completion of the course, students will be able to:**

- |   |   |
|---|---|
| 1 | State the role of the Incident Commander (IC) as defined by state and federal regulations.                    |
| 2 | Identify the laws, regulations and plans that govern an emergency response to a hazardous materials incident. |

- 3 Collect and interpret hazard and response information from sources such as printed reference material, technical resources, computer databases and monitoring equipment.
- 4 Estimate potential outcomes within an endangered area.
- 5 Write incident response objectives.
- 6 Identify the potential action response options (defensive, offensive and non-intervention) available
- 7 Demonstrate the ability to approve an appropriate level of personal protective equipment commonly to use in a hazardous materials incident
- 8 Determine if response objectives should be defensive, offensive and/or non-interventional.
- 9 Apply principles of Operational Risk Management to choose appropriate response objectives.
- 10 Implement ICS for a simulated incident to include: notification procedures; use of non-local resources; resource direction and support; and information transfer to the media and elected officials.
- 11 Write an Incident Action Plan consisting of at least an ICS form 201 and a site safety plan.
- 12 Identify government and private sector resources available to assist in an emergency response to a release of hazardous materials.
- 13 Evaluate the progress of the planned response.
- 14 Apply tasks to terminate the emergency phase of a simulated hazmat incident.
- 15 Describe the primary hazardous materials protective action options and identify factors to use in evaluating the selection of a protective action.

## Course Content

### Lecture/Course Content

1. Incident commander training requirements
2. Hazardous materials laws, regulations, and plans
3. Incident Command System (ICS), team typing, and response resources
4. Hazard assessment
5. Hazardous materials site safety
6. Operational Risk Management (ORM)
7. Protective actions
8. Incident termination

### Laboratory or Activity Content

CSTI Course Plan curriculum mandates/requires a 1:10 Instructor/Student ratio during activity content.

1. Students will work in groups on a series progressively more difficult hazardous materials scenario's provided by the instructor. Students will develop an incident action plan for the scenario outlining the critical elements of the scenario including: Key hazards, safety measures, control zones, organizational chart, resource needs, and incident demobilization plan.

## Methods of Evaluation

**Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):**

Written expression  
Problem solving exercises

**Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):**

Essay exams  
Group projects  
Individual projects  
Objective exams  
Oral presentations  
Problem-solving exams  
Quizzes  
Role playing  
Simulations

## Instructional Methodology

### Specify the methods of instruction that may be employed in this course

Audio-visual presentations  
 Class activities  
 Class discussions  
 Distance Education  
 Group discussions  
 Instructor-guided interpretation and analysis  
 Lecture  
 Role-playing

### Describe specific examples of the methods the instructor will use:

1. The instructor will lead a discussion on working with news media at hazardous materials incidents. The student will then write a press release to be provided to the media using a simulated hazardous materials scenario.
2. The instructor will lecture on the need for scene management.

## Representative Course Assignments

### Writing Assignments

1. Determine the physical hazards of unknown materials by identifying labels and placards and using the DOT ERG.
2. Develop an outline of items to cover in a post incident review.

### Critical Thinking Assignments

1. Students will work in groups on a hazardous materials scenario provided by the instructor. Students develop an incident action plan for the scenario outlining the critical elements of the scenario including: Key hazards, safety measures, control zones, organizational chart, resource needs, and incident demobilization plan.
2. Students will work in groups to diagram an Incident Command organization chart and present their work to the class.

### Reading Assignments

1. The student will read the material in the text on disposing of hazardous waste and will fill out a uniform hazardous waste manifest and turn it in for evaluation.
2. The student will read the information on protective actions at a Haz Mat event and will create a list of the pro's and con's of sheltering in place and discuss their list in class.

### Skills Demonstrations

1. Students will be provided a factual scenario involving a hazardous materials incident. The student will demonstrate the proper actions to command and control the emergency. Designed to identify a student's ability to address immediate problems, take and mitigate the emergency.

### Problem-Solving and Other Assignments (if applicable)

1. The instructor will lead a discussion on a simulated train rail car emergency. During the discussion, students are expected to identify key hazards and mitigation measures to isolate the incident. Students are evaluated based on industry standard by correctly identifying problems and the steps necessary to control the incident.

## Outside Assignments

### Representative Outside Assignments

1. Student will research large hazardous material incidents and develop defensive fire attack procedures.
2. Student will research freeway incidents involving hazardous materials and develop a decontamination plan.
3. Student will develop a downwind plan for evacuation from a hazardous materials incident.

## Articulation

### C-ID Descriptor Number

FIRE 232 X

### Status

Approved

**District General Education**

- A. Natural Sciences**
- B. Social and Behavioral Sciences**
- C. Humanities**
- D. Language and Rationality**
- E. Health and Physical Education/Kinesiology**
- F. Ethnic Studies/Gender Studies**

**CSU GE-Breadth**

- Area A: English Language Communication and Critical Thinking**
- Area B: Scientific Inquiry and Quantitative Reasoning**
- Area C: Arts and Humanities**
- Area D: Social Sciences**
- Area E: Lifelong Learning and Self-Development**
- Area F: Ethnic Studies**

**CSU Graduation Requirement in U.S. History, Constitution and American Ideals:**

**IGETC**

- Area 1: English Communication**
- Area 2A: Mathematical Concepts & Quantitative Reasoning**
- Area 3: Arts and Humanities**
- Area 4: Social and Behavioral Sciences**
- Area 5: Physical and Biological Sciences**
- Area 6: Languages Other than English (LOTE)**

**Textbooks and Lab Manuals**

**Resource Type**

Textbook

**Classic Textbook**

No

**Description**

Author: Department of Transportation  
 Title: Emergency Response Guidebook  
 Publisher: U.S. Department of Transportation  
 Date of Publication: 2020

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**Resource Type**

Textbook

**Classic Textbook**

No

**Description**

Author: Eugene Meyer  
Title: Chemistry of Hazardous Materials  
Publisher: Brady  
Date of Publication: 2010  
Edition: 5th

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**Resource Type**

Textbook

**Classic Textbook**

Yes

**Description**

Author: California Specialized Training Institute  
Title: Hazardous Materials - Incident Commander  
Publisher: State of California  
Date of Publication: 2001

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**Resource Type**

Textbook

**Classic Textbook**

No

**Description**

Author: Gregory G. Noll and Michael S. Hildebrand  
Title: Hazardous Materials, Managing the Incident  
Publisher: Jones and Bartlett Learning  
Date of Publication: 2014  
Edition: 4th

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**Library Resources**

**Sufficient Library Resources exist**

Yes

**Distance Education Addendum**

**Definitions**

**Distance Education Modalities**

Hybrid (1%–50% online)  
Hybrid (51%–99% online)  
100% online

**Faculty Certifications**

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.

Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.

Yes

### Regular Effective/Substantive Contact

#### Hybrid (1%–50% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Students will post to a discussion board and post replies to two other students.
Synchronous Dialog (e.g., online chat)	Students will view live Zoom sessions and communicate in the chat. Zoom sessions will be recorded for future use.

#### Hybrid (51%–99% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Students will post to a discussion board and post replies to two other students.
Synchronous Dialog (e.g., online chat)	Students will view live Zoom sessions and communicate in the chat. Zoom sessions will be recorded for future use.

#### 100% online Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Students will post to a discussion board and post replies to two other students.
Synchronous Dialog (e.g., online chat)	Students will view live Zoom sessions and communicate in the chat. Zoom sessions will be recorded for future use.
Other DE (e.g., recorded lectures)	Students will view recorded class sessions thru the District LMS.

### Examinations

#### Hybrid (1%–50% online) Modality

On campus  
Online

#### Hybrid (51%–99% online) Modality

On campus  
Online

### Primary Minimum Qualification

FIRE TECHNOLOGY

### Review and Approval Dates

#### Department Chair

09/27/2022

#### Dean

09/29/2022

#### Technical Review

10/12/2022

#### Curriculum Committee

10/12/2022

**Curriculum Committee**

11/23/2022

**CCCCO**

MM/DD/YYYY

**Control Number**

CCC000620123

**DOE/accreditation approval date**

MM/DD/YYYY