

FT R220: FIRE INSPECTIONS AND INVESTIGATIONS FOR COMPANY OFFICERS - 2C

Originator

michael_ketaily

Co-Contributor(s)
Name(s)

Jewett, Matthew (mjewett)

College

Oxnard College

Attach Support Documentation (as needed)

company-officer-2c-course-plan.pdf

Discipline (CB01A)

FT - Fire Technology

Course Number (CB01B)

R220

Course Title (CB02)

Fire Inspections and Investigations for Company Officers - 2C

Banner/Short Title

Inspections & Investigations

Credit Type

Credit

Honors

No

Start Term

Fall 2021

Catalog Course Description

This course aligns with Company Officer 2C of the Company Officer Program. It provides an overview of the information necessary to conduct inspections, identify hazards and address violations. Students will learn how to perform a fire investigation to determine preliminary cause and to secure the incident scene and preserve evidence.

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

140.00

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

1 @ \$140.00 each registration/certification fee paid to State of California Fire Marshal (California Fire Service Training and Education System - CFSTES).

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 the firefighter pursuing 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 of the student.

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?

This is a State Fire Marshal Accredited Course with a required registration fee. Students cannot register with the Fire Marshal directly and required materials are distributed to students at the first class meeting.

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

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

Limitations on Enrollment

Others (specify)

Other Limitations on Enrollment

Fire Fighter II educational requirements or four (4) years as a career fire fighter or six (6) years as a volunteer fire fighter.

Student Learning Outcomes (CSLOs)

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

- | | |
|---|---|
| 1 | Describe the different duties and positions in the Fire Officer Certification Track |
| 2 | Demonstrate the ability to complete a thorough fire inspection and pre-fire plan addressing occupancy, construction type and fire protection features |
| 3 | Demonstrate the ability to conduct a preliminary fire cause and origin investigation |

Course Objectives

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

- | | |
|---|--|
| 1 | Describe the procedures for conducting fire inspections. |
| 2 | Identifying hazards including hazardous materials and properly documenting and conducting follow-up in accordance with adopted policies. |
| 3 | Identify the construction, alarm, detection and suppression features that prevent or contribute to the spread of fire, heat and smoke through a building and develop an occupancy pre-fire plan. |
| 4 | Describe the procedures for securing and incident scene which keeps unauthorized persons from restricted areas and protects evidence from damage or destruction. |
| 5 | Determine the point of origin and preliminary cause of fire to ascertain if arson is suspected |

Course Content

Lecture/Course Content

1. Orientation and administration
 - a. Review of facilities
 - b. Review of classroom requirements
 - c. Review of syllabus, participation, assignments and evaluation methods
2. Fire Officer Certification track course requirements
 - a. Level I requirements
 - b. Level II requirements
 - c. The capstone task book process
 - d. The capstone testing process
3. Definitions of Duty
 - a. Duties of a Level I Company Officer
 - b. Duties of a Level II Company Officer
 - c. Duties of a Level I Wildland Fire Officer
4. Fire Inspection Procedures
 - a. California Fire Code classifications
 - b. Inspection procedures
 - c. Fire detection systems
 - d. Fire alarm systems
 - e. Fire protection systems
 - f. Common fire hazards
 - g. Life safety hazards
 - h. Hazardous materials marking and identification systems
 - i. Application of codes and standards
 - j. Wildland Urban Interface inspection procedures

5. Factors that prevent or contribute to fire spread
 - a. Fire behavior and fire spread in various occupancies
 - b. Building construction types
 - i. Type I non-combustible
 - ii. Type II non-combustible
 - iii. Type III non-combustible exterior
 - iv. Type IV heavy timber
 - v. Type V combustible
 - c. Building construction features
 - i. Fire walls
 - ii. Fire barriers
 - iii. Fire partitions
 - iv. Fire doors
 - v. Vertical openings
 - vi. Interior finishes
 - vii. Roofing
 - viii. Draft stops and smoke vents
 - d. Impact of
 - i. Detection systems
 - ii. Alarm systems
 - iii. Suppression systems
 - iv. Codes
 - v. Ordinances
 - vi. Standards
 - e. Purpose of pre-incident plans
 - f. Pre-incident plan survey process
6. Securing incident scenes
 - a. Types of evidence
 - b. Fire scene security
 - c. Evidence preservation
 - d. Establishing perimeters at incident scenes
7. Determining cause and origin
 - a. Methods used by arsonists
 - b. Common causes of fire
 - c. Basic fire cause and origin determination
 - d. Fire growth and development
 - e. Procedures to document preliminary investigations
 - f. Applying knowledge using deductive skills

Laboratory or Activity Content

None

Methods of Evaluation

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

Problem solving exercises
Written expression

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
Oral analysis/critiques
Objective exams
Oral presentations
Problem-solving exams
Quizzes
Role playing
Reports/papers

Research papers
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 use of technology
Lecture
Role-playing

Describe specific examples of the methods the instructor will use:

1. The instructor will lecture on the documentation steps of a preliminary fire investigation. Students will then be given a fire investigation scenario and shall document the appropriate findings in the proper sequence.
2. The instructor will lead students through a demonstration of the steps to be taken for conducting a fire safety inspection and review critical mistakes fire inspectors occasionally make. Students will then conduct a mock fire safety inspection on a given building.

Representative Course Assignments

Writing Assignments

1. Create a comprehensive outline of the steps to be taken when determining the point of origin of a single family dwelling fire from time of dispatch to determining the point of origin.
2. Utilizing role playing scenarios, students will perform a preliminary fire investigation of a given fire scene.
3. Students will draft a pre-incident plan of a commercial building. Student work will be graded using an instructor created rubric that is shared with the students.
4. Students will use a provided residential fire scenario and from the information provided, create a matrix of the steps to be followed in a fire investigation and present it to the class.

Critical Thinking Assignments

1. Research and present the capstone task book process
2. Role play the position of a fire investigator to determine preliminary cause, securing the incident scene, and preserving evidence, according to job performance requirements.
3. Prepare a project or divisional budget and a news release.

Reading Assignments

1. Read Penal Code 832 and analyze how it affects the fire investigator.
2. Read the chapter on fire growth and development and be prepared to discuss in class how it can effect fire investigation procedures.

Skills Demonstrations

1. The instructor will lead students through a demonstration of the steps to be taken for conducting a fire safety inspection and review critical mistakes fire inspectors occasionally make. Students will then conduct a mock fire safety inspection on a given building.

Outside Assignments

Representative Outside Assignments

1. Read weekly assigned chapter from the text.
2. Interview a fire investigator and determine company occupancy fire prevention responsibilities.
3. Develop press releases for a haz mat incident, a structure fire and a brush fire.

Articulation

C-ID Descriptor Number

Fire 220 X

Status
Aligned

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

Ward, Michael J. *Fire Officer: Principles and Practice*. Jones & Bartlett Learning, 2019.

Resource Type

Textbook

Classic Textbook

No

Description

International Fire Service Training Association. *Fire and Emergency Services Company Officer*. 5th ed., Fire Protection Publications, 2014. Most recent edition. Phoenix AZ.

Resource Type

Textbook

Classic Textbook

No

Description

Fire Inspections and Investigations for Company Officers Course Plan. California Fire Service Training and Education System. 2017

Resource Type

Textbook

Classic Textbook

No

Description

California Fire Inspector's Guide. California Fire Chief's Association. 2016

Library Resources

Sufficient Library Resources exist

Yes

Distance Education Addendum

Definitions

Distance Education Modalities

Hybrid (51%–99% online)
Hybrid (1%–50% 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 a discussion board topic and they will respond to another classmate or two with the intent for dialogue.
Asynchronous Dialog (e.g., discussion board)	Students will share their thoughts of the online lecture in an online chat with their classmates.
Synchronous Dialog (e.g., online chat)	Instructor will lead scenarios where students will "role play" the role of instructor while performing fire prevention inspections.
Asynchronous Dialog (e.g., discussion board)	Students will develop checklists for inspecting commercial, residential, habitational and public assemblage occupancies.

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 a discussion board topic and they will respond to another classmate or two with the intent for dialogue.
Asynchronous Dialog (e.g., discussion board)	Students will share their thoughts of the online lecture in an online chat with their classmates.
Other DE (e.g., recorded lectures)	Students will view online lecture through the District LMS.
Synchronous Dialog (e.g., online chat)	Instructor will lead scenarios where students will "role play" the role of instructor while performing fire prevention inspections.
Asynchronous Dialog (e.g., discussion board)	Students will develop checklists for inspecting commercial, residential, habitational and public assemblage occupancies.

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 a discussion board topic and they will respond to another classmate or two with the intent for dialogue.
Other DE (e.g., recorded lectures)	Students will meet online with Instructor via Zoom.
Asynchronous Dialog (e.g., discussion board)	Students will share their thoughts of the online lecture in an online chat with their classmates.
Synchronous Dialog (e.g., online chat)	Instructor will lead scenarios where students will "role play" the role of instructor while performing fire prevention inspections.
Asynchronous Dialog (e.g., discussion board)	Students will develop checklists for inspecting commercial, residential, habitational and public assemblage occupancies.

Examinations

Hybrid (1%–50% online) Modality

Online
On campus

Hybrid (51%–99% online) Modality

Online
On campus

Primary Minimum Qualification

FIRE TECHNOLOGY

Review and Approval Dates

Department Chair

09/09/2020

Dean

09/09/2020

Technical Review

09/23/2020

Curriculum Committee

09/23/2020

DTRW-I

10/08/2020

Curriculum Committee

10/14/2020

Board

11/10/2020

CCCCO

11/15/2020

Control Number

CCC000620120

DOE/accreditation approval date

MM/DD/YYYY