

**FIRE 201 Course Outline as of Fall 2017****CATALOG INFORMATION**

Dept and Nbr: FIRE 201 Title: FIRE PREVENTION 1

Full Title: Fire Prevention &amp; Life Safety Inspection for Company Officer

Last Reviewed: 4/23/2013

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.50	Lecture Scheduled	1.25	17.5	Lecture Scheduled	21.88
Minimum	1.50	Lab Scheduled	0.75	1	Lab Scheduled	13.13
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	35.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 43.75

Total Student Learning Hours: 78.75

Title 5 Category: AA Degree Applicable

Grading: P/NP Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

**Catalog Description:**

A study of the fire prevention duties and responsibilities of a company fire officer and the relationship between life safety and building construction, the elements of a quality company inspection program and how to address complex hazards encountered during an inspection.

**Prerequisites/Corequisites:**

Course Completion of FIRE 71 or equivalent

**Recommended Preparation:**

Course Completion of FIRE 73

**Limits on Enrollment:****Schedule of Classes Information:**

Description: A study of the fire prevention duties and responsibilities of a company fire officer and the relationship between life safety and building construction, the elements of a quality company inspection program and how to address complex hazards encountered during an inspection. (P/NP Only)

Prerequisites/Corequisites: Course Completion of FIRE 71 or equivalent

Recommended: Course Completion of FIRE 73

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>CSU Transfer:</b>		Effective:	Inactive:
<b>UC Transfer:</b>		Effective:	Inactive:

**CID:**

**Certificate/Major Applicable:**

Both Certificate and Major Applicable

## **COURSE CONTENT**

### **Outcomes and Objectives:**

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

1. Describe the purpose and value of company inspections and the opportunities the company officer has to improve fire safety and analyze significant loss fires.
2. Describe the National Incident Fire Reporting System (NFIRS) and the California Incident Reporting System (CAIRS) and identify the need for incident reporting.
3. Describe the components of a Community Risk Analysis (CRA), a company officer's role, and its relationship to civilian, and firefighter casualties and property loss.
4. Describe fire and life safety education programs, presentation methods and the five step education process.
5. Identify the purpose and source for the California Fire Inspector's Guide and describe the various permit types.
6. Describe the California Statutes, regulations, local codes and standards that give the company officer the authority to conduct inspections.
7. Identify occupancy classifications, the hazards associated with each and the different types of target hazards.
8. Identify building construction types and the fire behavior associated with each.
9. Describe the purpose and goals of the pre-incident planning process.
10. Describe the three goals of a company inspection.
11. Describe the role of the company officer in the code enforcement and appeals process.
12. Identify the documentation and data necessary to prepare a fire inspection.
13. Demonstrate the ability to properly inspect and follow up on an occupancy inspection.
14. Describe the different types and features of fire alarms, detection and smoke control systems.
15. Demonstrate the ability to properly inspect fire extinguishers, fire protection systems, cooking equipment and fire alarm systems.
16. Identify building construction features designed to limit fire, heat and smoke spread.
17. Describe the duties associated with fire watch and fire stand-by activities and the situations that require it.
18. Identify the hazards and safety requirements associated with special occupancies such as

- storage facilities, heat producing equipment, tents, hazardous processes and fuel dispensing.
19. Describe the documentation, markings and placarding required when storing hazardous materials.
20. Define the term Wildland Urban Interface (WUI) and describe the threats and risks associated with fires in the WUI and prevention tools suited to the WUI environment.

### **Topics and Scope:**

- I. The purpose and value of company inspections
  - A. Pre-fire evaluations
  - B. Risk reduction
  - C. Community relations
  - D. Liability
- II. Fire incident reporting systems
  - A. NFIRS
  - B. CAIRS
- III. Components of a Community Risk Analysis
  - A. Event identification
  - B. Frequency and consequence analysis
  - C. Risk estimation and control
  - D. Relationship of civilian and firefighter casualties
- IV. Life safety education programs
  - A. Program types
  - B. Presentation methods
  - C. Five step education process
- V. California Fire Inspector's Guide and permit types
  - A. Applicable California fire codes
  - B. Applicable California building Codes
  - C. Permit types
    - 1. Operational
    - 2. Construction
- VI. Statutes, regulations and standards
  - A. Statutes
    - 1. Health and Safety code
    - 2. Public Resources code
  - B. California Code of Regulations
    - 1. Title 19, Public Safety
    - 2. Title 24 Part 2, California Building Standards Code
    - 3. Title 24 Part 9, California Fire Code
  - C. National Standards (National Fire Protection Agency)
    - 1. NFPA 10
    - 2. NFPA 25
    - 3. NFPA 72
- VII. Occupancy classifications and their associated hazards
  - A. Occupancy types
  - B. Mixed use occupancies
  - C. Specific hazards
    - 1. Egress
    - 2. Housekeeping
    - 3. Electrical
  - D. Target hazards
- VIII. Building construction types and fire behavior associated with each

- A. Types 1-V
- B. Fire resistive construction
- C. Non-fire resistive construction
- D. Associated fire behavior
- IX. The pre-incident planning process
  - A. Components
  - B. Planning
  - C. Conducting
- X. Goals of a company inspection program
  - A. Occupant safety is improved
  - B. Building is in compliance
  - C. Occupants educated in safe practices
- XI. The role of the company officer
  - A. Identifying code violations
  - B. Determining severity
  - C. Initiating the compliance process
  - D. Describing the appeals process
- XII. Preparing for and documenting fire inspections
  - A. Preparation
    - 1. Coordinating with the prevention bureau
    - 2. Reviewing occupancy history
  - B. Documents
    - 1. Inspector guide
    - 2. Inspection forms
      - a. Completion of required fields
      - b. Proper description of violations and regulatory citations
    - 3. Inspection checklists
- XIII. Conducting fire inspections
  - A. Scheduling
  - B. Appearance and identification
  - C. Communication
    - 1. Interpersonal skills
    - 2. Non-verbal communication
    - 3. Listening skills
  - D. Inspection process
    - 1. Introduction
    - 2. Explaining purpose
    - 3. Obtaining permission
    - 4. Verifying occupancy use and construction type
    - 5. Systematic inspection approach
    - 6. Verification of permits
    - 7. Review of findings
    - 8. Schedule re-inspection
    - 9. Specific hazards
      - a. Flammable liquids
      - b. Compressed gas cylinders
      - c. Fire separations
      - d. Electrical hazards
      - e. Exit access, doors and exit hardware
      - f. Housekeeping
      - g. Weed abatement
    - 10. Addressing immediate hazards

- 11. Procedure for failing to comply.
- XIV. Fire alarm and detection systems
  - A.Types of fire alarm systems
  - B.Fire alarm system features
  - C.Smoke control systems
- XV. Inspection and maintenance of fire protection systems and equipment
  - A.Fire extinguishers
  - B.Sprinkler and standpipe systems
  - C.Hydrants
  - D.Cooking extinguishing systems
  - E.Fire alarm systems
- XVI. Building construction fire prevention features
  - A.Fire walls
  - B.Fire doors
  - C.Roofing materials
  - D.Smoke vents
  - E.Draft stops
- XVII. Fire watch and standby activities
  - A.Situations that require fire watch
  - B.Fire watch duties
  - C.Documentation required for fire watch
- XVIII. Special occupancies
  - A.Storage facilities
  - B.Heat Producing appliances
  - C.Tents and membrane structures
  - D. Fuel dispensing
- XIX. Hazardous Material inspection
  - A.Documentation
  - C.Storage and use
- XX. Wildland Urban Interface (WUI)
  - A.Definition of
  - B.WUI threats
  - C.Wildfire causes
  - D.WUI incident risk factors
  - E.WUI prevention and education tools
  - F.WUI requirements

**Assignment:**

1. Reading 20-80 pages between sessions
2. Written homework assignments
3. 2-5 writing inspection exercises
4. 5-10 group exercises including scenarios
5. 1 field trip
6. Manual worksheets
7. Summative exam
8. Attendance

**Methods of Evaluation/Basis of Grade:**

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Two inspection writing exercises, written homework assignment.

Writing  
5 - 10%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Inspection scenarios, field trip

Problem solving  
5 - 10%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Inspection-based scenarios

Skill Demonstrations  
5 - 10%

**Exams:** All forms of formal testing, other than skill performance exams.

Exam

Exams  
70 - 80%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

Must meet State Fire Training's attendance regulations.

Other Category  
5 - 10%

### **Representative Textbooks and Materials:**

Fire Prevention Applications for Company Officers, Paul Valentine and Brett Lacy, Fire Protection Publications, first edition, 2010

California Fire Inspector's Guide, California Fire Chief's Association, current edition, 2010