

COURSE OUTLINE

**Fire Technology 156  
Fire Prevention 1A**

**I. Catalog Statement**

Fire Technology 156 is the first in a three-course series and provides fundamental instruction regarding the history and philosophy of fire prevention, organization, and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationship of fire prevention to fire safety education and detection and suppression systems. This course applies to the California Fire Service Training and Education System certifications.

Total Lecture Units: 2.0

**Total Course Units: 2.0**

Total Lecture Hours: 32.0

**Total Faculty Contact Hours: 32.0**

Prerequisite: Fire Technology 110 or employment in a fire-related occupation.

Recommended preparation: Eligibility for English 120 or ESL 151.

**II. Course Entry Expectations**

Skills Level Ranges: Reading 5; Writing 5; Listening/Speaking 5; Math 3.

Prior to enrolling in this course, the student should be able to:

1. analyze the philosophy and history of fire protection systems;
2. analyze the impact of historical reports of loss of life and property by fire;
3. compare and contrast municipal fire defense systems;
4. identify the organizational structures of Federal, State, and County fire protection agencies.

**III. Course Exit Standards**

Upon successful completion of the required coursework, the student should be able to:

1. describe the origin and history of fire prevention efforts in the United States;
2. identify the basic fire prevention functions of a fire department;
3. identify the responsibility and authority for fire prevention inspections and related activities;
4. explain and identify principles and procedures used to correct fire hazards;

5. identify occupancies and building preparation and records management in fire prevention efforts;
6. explain basic exiting requirements;
7. identify basic electrical fire hazards;
8. identify operational deficiencies in sprinkler systems and special fixed fire protection systems;
9. identify the plan review function of a fire prevention bureau;
10. identify the relationship between fire safety education and fire prevention.

**IV. Course Content**

**Total Faculty Contact Hours = 32**

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|--|----------|
| A. Responsibilities of Fire Prevention Personnel                           | 5 hours  |
| 1. Use of the Uniform Fire Code (UFC)                                      |          |
| 2. Legally established responsibilities and empowerment                    |          |
| 3. International Fire Code Institute code development process              |          |
| 4. International Conference of Building Officials code development process |          |
| B. Fire Incident Reporting   | 5 hours  |
| 1. Factors relating to life safety   |          |
| 2. General fire inspection practices                                       |          |
| 3. Modification requirements   |          |
| 4. Fire hazard correction procedures                                       |          |
| C. General Fire Safety   | 4 hours  |
| 1. Fire drills and emergency evacuation                                    |          |
| 2. Fire prevention complaint management                                    |          |
| D. Basic Instruction Techniques for Public Education                       | 5 hours  |
| 1. Instructing children in safety awareness                                |          |
| 2. Instructing adults in safety responsibility                             |          |
| 3. Teaching public fire prevention issues                                  |          |
| 4. Teaching public fire and burn prevention                                |          |
| 5. Juvenile firesetter awareness   |          |
| E. Basic Electrical Theory   | 3 hours  |
| 1. Safety devices  |          |
| 2. Electrical fire hazards   |          |
| 3. Reference sources related to electrical codes and safety                |          |
| F. Building Construction Classifications                                   | 10 hours |
| 1. Relationship of fire protection to building construction and occupancy  |          |
| 2. Classification of occupancies   |          |
| 3. Determination of adequate egress  |          |
| 4. Requirements and maintenance of exits                                   |          |
| 5. Types and classes of roof coverings                                     |          |

6. Purpose and location of fire rated building construction
7. Fire doors, windows, stairwells and storage areas
8. Fire safety requirements for decorative materials and furnishing.
9. Kitchen cooking equipment
10. High piled combustible storage
11. Enclosed stairwells and smokeproof enclosures

**V. Methods of Instruction**

The following methods of instruction may be used in the course:

1. classroom lecture and demonstration;
2. multimedia lab demonstrations.

**VI. Out of Class Assignments**

The following out of class assignments may be used in the course:

1. individual projects (i.e. written assignment, reading reports);
2. group projects (i.e. Homework problems, problem solving demonstrations, discussion on textbook topics).

**VII. Methods of Evaluation**

The following methods of evaluation may be used in the course:

1. daily verbal evaluation of instructor;
2. quizzes;
3. examination;
4. final examination.

**VIII. Textbooks**

International Fire Service Training Association (IFSTA), Fire Inspection & Code Enforcement [7<sup>th</sup> Edition]. Stillwater, OK: IFSTA, 2009.  
10<sup>th</sup> Grade Textbook Reading Level. ISBN: 0879393483

International Fire Code Institute, Uniform Fire Codes (UFC) [1998 Edition].  
International Conference of Building Officials, 1998.  
10<sup>th</sup> Grade Textbook Reading Level. ISBN: 0135021022

**IX. Student Learning Outcomes**

1. Student will be able to identify the responsibility and authority for fire prevention inspections and related activities.
2. Student will be able to explain and identify principles and procedures used to correct fire hazards.
3. Student will be able to identify basic electrical fire hazards and operational deficiencies in sprinkler systems and special fixed fire protection systems.