

Las Positas College  
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## Course Outline for FST 51

### FIRE SERVICE OPERATIONS

Effective: Fall 2019

#### I. CATALOG DESCRIPTION:

FST 51 — FIRE SERVICE OPERATIONS — 3.00 units

Fundamentals of fire department organization, management and resources; fire company organization; resources to control various emergencies; multi-agency coordinating systems; support and regulatory agencies; strategy and tactics applied to structural fire fighting, wildland fire fighting, and hazardous material emergencies; and safety conditions to be considered.

3.00 Units Lecture

#### **Strongly Recommended**

FST 1 - Fire Protection Organization  
with a minimum grade of C  
or  
May be Co-Enrolled

#### **Grading Methods:**

Letter Grade

#### **Discipline:**

- Fire Technology

	<b>MIN</b>
<b>Lecture Hours:</b>	54.00
<b>Expected Outside of Class Hours:</b>	108.00
<b>No Unit Value Lab</b>	18.00
<b>Total Hours:</b>	180.00

#### II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

#### III. PREREQUISITE AND/OR ADVISORY SKILLS:

**Before entering this course, it is strongly recommended that the student should be able to:**

##### A. FST1

1. Describe the components and development of the fire and emergency services.
2. Recognize careers in fire and emergency services.
3. Define the role of national, state and local support organizations in fire service and emergency services.
4. Discuss and describe the scope, purpose, and organizational structure of fire and emergency services.
5. Describe the common types of fire and emergency service facilities, equipment and apparatus.
6. Compare and contrast effective management concepts for various emergency situations.

#### IV. MEASURABLE OBJECTIVES:

**Upon completion of this course, the student should be able to:**

- A. Identify the organizational divisions of a typical fire department and explain the duties and responsibilities of these divisions;
- B. Identify the management systems and give examples of where they could be used in the fire service;
- C. Describe the elements of mutual aid and automatic aid and the constraints and capabilities of each for a second alarm or larger incident;
- D. Explain in writing what impact regulatory agencies and doctrines have upon a firefighter;
- E. List the various ways emergency calls can come into a dispatch system and explain how units are dispatched;
- F. Identify and describe three separate pieces of fire apparatus and explain where they would be used;
- G. Analyze the steps of size-up and explain how they apply to a structure fire;
- H. Provide examples of the safety procedures used on a wildland fire;
  - I. Explain the differences between the duties of a fire service unit and an ambulance on a typical traffic accident and list the sequence of how they are accomplished;
  - J. List and compare the safety considerations that should be used on various emergency incidences;
  - K. Describe how a firefighter can preserve evidence for a fire investigator on a structural fire.

#### V. CONTENT:

- A. Fire service operations
  - 1. responsibilities and authority
  - 2. types of agencies
- B. Fire department organization
  - 1. organization structure
  - 2. individual responsibilities
- C. Fire service management
  - 1. administration
  - 2. management systems
  - 3. private fire protection agencies
- D. Multi-agency coordinating systems
  - 1. state, region, country, and area
  - 2. mutual aid, automatic aid, and move-up
  - 3. alarm classifications
- E. Support and regulatory agencies
  - 1. support
  - 2. regulatory
- F. Dispatch systems
  - 1. how calls are received and units dispatched
  - 2. local and supervised alarm systems
- G. Types of fire department apparatus
  - 1. types of engines and their equipment
  - 2. ladder trucks and aerial platforms
  - 3. aircraft and airport apparatus
  - 4. wildland apparatus
  - 5. auxiliary apparatus
  - 6. EMS apparatus
- H. Structural fire fighting
  - 1. fire behavior in structures
  - 2. building construction hazards
  - 3. tactics and strategy
  - 4. types of attacks
  - 5. supporting fire protection systems
  - 6. fireline safety
- I. Wildland fire fighting
  - 1. fire behavior
  - 2. tactics and strategy
  - 3. fireline safety
- J. Emergency medical services
  - 1. types of incidents
  - 2. training requirements
  - 3. ambulances and squads
  - 4. safety
- K. Transportation incidents
  - 1. roadway
  - 2. aircraft
  - 3. rail
  - 4. marine
  - 5. safety
- L. Hazardous materials
  - 1. classification and identification system
  - 2. transportation and pipeline incidents
  - 3. handling and storage incidents
  - 4. tactics and strategy
  - 5. reference texts
  - 6. safety
- M. Fire investigation responsibilities
  - 1. preservation of evidence

#### VI. METHODS OF INSTRUCTION:

- A. **Field Trips** -
- B. **Discussion** -
- C. **Lecture** -
- D. Group activities
- E. Diagnostic quizzes
- F. Audio-visual presentations

#### VII. TYPICAL ASSIGNMENTS:

- A. Write an essay demonstrating knowledge of the structure and organization of a fire department
- B. Present a typical fire department for a large size city (greater than 100,000) population
- C. In a group, list the elements of a size-up for a structure fire

#### VIII. EVALUATION:

##### **Methods/Frequency**

- A. Exams/Tests
  - one midterm and final exam
- B. Quizzes
  - bi-weekly
- C. Papers
  - one essay
- D. Oral Presentation
  - one
- E. Class Participation
  - daily
- F. Class Work
  - daily

#### IX. TYPICAL TEXTS:

1. Stowell, Frederick. *Essentials of Fire Fighting and Fire Department Operations*. 6th ed., IFSTA Brady, 2013.
2. Corbett, Glenn. *Fire Engineering's Handbook for Fire Fighter 1 and Fire Fighter 2*. 2013 ed., Pennwell, 2013.
3. Teie, William. *Firefighters Handbook on Wildland Firefighting*. 3rd ed., Deer Valley Press, 2005.
4. Schnepf, Rob. *Hazardous Materials: Awareness and Operations*. 3rd ed., Jones and Bartlett, 2017.
5. Jones and Bartlett. *Fundamentals of Fire Fighter Skills*. 3rd ed., Jones and Bartlett Learning, 2017.
6. National Fire Protection Handbook

X. OTHER MATERIALS REQUIRED OF STUDENTS: