

Las Positas College
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Course Outline for FST 50

FIRE PROTECTION ORGANIZATION

Effective: Fall 2004

I. CATALOG DESCRIPTION:

FST 50 — FIRE PROTECTION ORGANIZATION — 3.00 units

Introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. Cultural Diversity; including discrimination and harassment laws and regulation. Course complies with State Board of Fire Services requirements (1999).

3.00 Units Lecture

Grading Methods:

Letter Grade

Discipline:

	<u>MIN</u>
Lecture Hours:	54.00
No Unit Value Lab	18.00
Total Hours:	72.00

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

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

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

- A. Analyze and describe the differences between the certificate, two-year, four-year degree programs, and state certification;
- B. Describe the educational requirements, duties, and information sources for various occupations in fire protection;
- C. Identify the basic components of fire as chemical reaction, the major phases of fire, and the main factors that influence fire spread and behavior;
- D. Identify the effects of fire on the environment and the historical efforts made to protect society;
- E. Identify the major organizations that contribute to fire protection;
- F. Define and describe the purpose and scope of fire departments;
- G. Identify the types of common fire department apparatus, equipment, and personal safety equipment used for fire fighting;
- H. Identify the various codes, standards, ordinances, and regulations that affect fire protection;
 - I. Identify the various types of public and private fire protection equipment and systems;
- J. Define the common elements of a fire prevention bureau;
- K. Identify the various applications of computers in the fire service;
- L. Define fire fighting strategy and tactics;
- M. Describe the basic elements of firefighter safety and survival;
- N. Define and describe cultural differences and diversity;
- O. Define and identify discrimination and harassment laws and regulations.

V. CONTENT:

- A. Introduction to fire technology
 1. Scope and content of fire technology curriculum
 2. Career potential assessment
 3. Work ethics and human relations
 4. Available training programs
 5. Personnel development programs
- B. Fire protection career opportunities
 1. Public fire protection careers
 - a. Private fire protection careers
- C. Public fire protection
 1. History of fire protection
 - a. Fire losses
 - b. Purpose and scope of fire service agencies
 - c. Fire defense planning
- D. Fire chemistry

1. Introduction to the characteristics and behavior of fire
 - a. Theories of fire
2. Fire triangle
3. Fire tetrahedron
 - a. Physics of fire
 - b. Fuel
 - c. Types of fuel
 - d. Flame spread characteristic
 - e. Classification of gases
4. Heat and temperature
5. Heat transfer
6. Classification of fires
7. Phases of fire
 - a. Extinguishing agents and method
 - b. Public and private support agencies
8. Types of organizations
 - a. Advisory and regulatory agencies
 - b. Private fire suppression organizations
 - c. Proprietary services
 - d. Volunteer
- E. Fire department resources
 1. Fire department facilities
 - a. Types of apparatus and their functions
 - b. Equipment and tools carried on apparatus
 - c. Personal safety equipment
- F. Operational functions of a fire department
 1. Emergency operations
 - a. Fire prevention
 - b. Training
 - c. Administration
 - d. Non-emergency operations
 - e. Aircraft for firefighting operation
 - f. Fixed wing
 2. Rotary wing
 - a. Hazardous materials control limit
- G. Emergency operations
 1. Personnel
 - a. Alarm system
 - b. Standard operating procedure
- H. Fire prevention
 1. Personnel/positions
 - a. Responsibilities of the fire prevention bureau
 - b. Company inspection programs
 - c. Fire information reporting systems
 - d. Arson
- I. Training
 1. Personnel and positions
 - a. Skill development/maintenance
 - b. Performance standards
 - c. Ambulance companies
- J. Fire administration
 1. Personnel and positions
 - a. Functions
 - b. Relationship of fire department with other agencies
 - c. Rules and regulations
 - d. Internal and external influences
 - e. Computer applications
 - f. Unity of command
 - g. Chain of command
 - h. Span of control
 - i. Division of labor
 - j. Delegation of authority
 - k. Exception of principal
 - l. Management cycle
 2. Goals
 3. Objectives
- K. Codes and ordinances
 1. Federal, state, and local
 - a. Responsibility for enforcement
 - b. Relationship of codes and standards
 - c. Relationship of federal, state, and local regulations
- L. Fire protection systems and equipment
 1. Public and private systems
 - a. Extinguishing agents
- M. Emergency incident management
 1. Introduction to strategy development
 - a. Relationship of strategy to tactics
 - b. Incident command system
- N. Purpose and importance of training
- O. Cultural diversity and pertinent laws
 1. Cultures within the fire service and general population
 2. Individual life experiences and their impact on attitudes and behaviors
 3. Define diversity
 - a. Age
 - b. Race/color
 - c. Gender
 - d. Ethnic
 - e. Religious
 - f. Sexual Orientation
 - g. Physically disadvantaged

- h. Gender dysphoria
- 4. Equality in the workplace
- 5. Affirmative action
- 6. Discrimination and harassment laws and regulations
- 7. Hostile work environment and violence in the workplace
- 8. ADA – Americans with Disabilities Act
- 9. Teamwork – Methods to overcome hostile work environment
- 10. Verbal and non-verbal communications

VI. METHODS OF INSTRUCTION:

- A. **Discussion** -
- B. Audio-visual presentations
- C. Role playing
- D. Group activities
- E. Problem-solving exercises
- F. **Lecture** -
- G. Diagnostic
- H. Quizzes
- I. Student Workbook
- J. **Field Trips** - Fire Department Visitations
- K. Reading assignments

VII. TYPICAL ASSIGNMENTS:

- A. Weekly reading assignments 1. Read the chapter in IFSTA “Orientation and Terminology” B. Group project designing a fire department 1. Develop an agency flow chart of the command structure and departments 2. Develop the staffing and resource allocations based on a 50,000-population community. C. Problem solving exercise of fire protection 1. Countertop fire-ground exercise. Basic tactics and strategies employed. D. Public speaking exercise with mock oral for employment. 1. Prepare for a mock oral with professional panel - evaluators

VIII. EVALUATION:

A. **Methods**

- 1. Exams/Tests
- 2. Quizzes
- 3. Projects
- 4. Group Projects
- 5. Class Performance
- 6. Other:
 - a. Methods
 - 1. Quizzes
 - 2. Group course project
 - 3. Classroom performance and discussion
 - 4. Completion of Student Workbook
 - a. Workbook: Diversity-The Impact of Perceptions
 - 5. Midterm and Final examinations

B. **Frequency**

- 1. Frequency
 - a. Discussion each class
 - b. Weekly quizzes
 - c. One Midterm exam
 - d. One Final Exam
 - e. One Project
 - f. One Student Workbook
- 2. Typical Questions
 - a. Identify the primary organization that publishes what is to be considered to be national standards for all aspects of the Fire Service and Fire Protection
 - b. When was this organization formed?
 - 1. Identify the primary responsibilities and tasks assigned to a first arriving truck company, at a typical single-family dwelling structure fire.
 - 2. Identify the pneumatic, RECEO, as a component of the divisions of firefighting.
 - 3. What is considered the basic level of PPE's for a firefighter on the fireground of a structure fire?

IX. TYPICAL TEXTS:

- 1. - *Essentials of Firefighting*. 4th ed., IFSTA, 0.
- 2. - *Orientation and Terminology*. 3rd ed., IFSTA, 0.
- 3. - *Introduction to Fire Protection*. 2nd ed., Thompson-Delmar Learning, 0.
- 4. Diversity the Impact of Perceptions-Student Workbook, CPF and CSFM

X. OTHER MATERIALS REQUIRED OF STUDENTS: