

PALOMAR COLLEGE  
COURSE OUTLINE OF RECORD FOR  
DEGREE CREDIT COURSE

xx Transfer course    xx A.A. degree applicable course  
(check all that apply)

**COURSE NUMBER AND TITLE:**      FIRE 100

**UNIT VALUE:**    03

**MINIMUM NUMBER OF SEMESTER HOURS:** 48

**BASIC SKILLS REQUIREMENTS:**

Appropriate language skills.

**ENTRANCE REQUIREMENTS**

**PREREQUISITE:**    None

**COREQUISITE:**

**RECOMMENDED PREPARATION:**

**SCOPE OF COURSE:**

Provides an 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. CSU.

**SPECIFIC COURSE OBJECTIVES:**

The successful student will be able to:

1. Analyze and describe the differences between the certificate, two-year, four-year degree programs, and state certification.
2. Describe the educational requirements, duties, and information sources for various occupations in fire protection.
3. Identify the basic components of fire as a chemical reaction, the major phases of fire, and the main factors that influence fire spread and fire behavior.
4. Identify the effects of fire on the environment and the historical efforts made to protect society.

5. Identify the major organizations that contribute to fire protection.
6. Define and describe the purpose and scope of fire departments.
7. Identify the types of common fire department apparatus, equipment, and personal safety equipment used for fire fighting.
8. Identify the various codes, standards, ordinances, and regulations that affect fire protection.
9. Identify the various types of public and private fire protection equipment and systems.
10. Define the common elements of a fire prevention bureau.
11. Identify the various applications of computers in the fire service.
12. Define fire fighting strategy and tactics.
13. Describe the basic elements of fire fighter safety and survival.

**CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:**

- I. INTRODUCTION TO FIRE TECHNOLOGY
  - A. Scope and content of Fire Technology curriculum
    1. College certificate of completion
    2. Associate degree
    3. Bachelor degree
    4. State certification requirements
    5. Specialized training
  - B. Career Potential Assessment
    1. Assessing an agency
    2. Applying for the job
    3. Employment processes
    4. Physical fitness assessment
    5. Career counseling
  - C. Work Ethics and Human Relations
  - D. Available Training Programs
    1. In-service
    2. Regional
    3. State
    4. National
  - E. Personnel Development Programs
    1. Need for physical fitness
    2. Aspects of firefighter safety and survival
- II. FIRE PROTECTION CAREER OPPORTUNITIES
  - A. Public Fire Protection Careers
    1. Federal agencies
    2. State agencies
    3. Local agencies
  - B. Private Fire Protection Careers
    1. Industrial
    2. Insurance
    3. Apparatus and equipment
    4. Fire protection systems
- III. PUBLIC FIRE PROTECTION
  - A. History of Fire Protection
    1. Early fire protection efforts worldwide
    2. United States fire protection development
    3. Social, political, and economic implications of the fire problem
    4. Major causes of fires in the United States
  - B. Fire Losses
    1. Deaths and injuries
    2. Property damage
  - C. Purpose and Scope of Fire Agencies
    1. Basic types of local agencies
    2. Job titles, duties, and requirements for positions in

- fire agencies
    - D. Fire Defense Planning
      - 1. Built environment
      - 2. ISO grading schedule
      - 3. Master planning
      - 4. Mutual/automatic aid
      - 5. Community role
      - 6. Wildland/urban interface
- IV. FIRE CHEMISTRY
  - A. Introduction to the Characteristics and Behavior of Fire
    - 1. Fire triangle
    - 2. Fire tetrahedron
    - 3. Fire classifications
    - 4. Fire hazard properties of materials
    - 5. Extinguishing agents and methods
    - 6. Phases of fire
    - 7. Methods of heat transfer
- V. PUBLIC AND PRIVATE SUPPORT ORGANIZATIONS
  - A. Types of Organizations
    - 1. National
    - 2. Federal
    - 3. State
    - 4. Local
  - B. Advisory and Regulatory Agencies
    - 1. Public
    - 2. Private
  - C. Private Fire Suppression Organizations
    - 1. Contract services
    - 2. Industrial fire brigades
  - D. Proprietary Services
- VI. FIRE DEPARTMENT RESOURCES
  - A. Fire Department Facilities
    - 1. Administrative Offices
    - 2. Dispatch/Communications Centers
    - 3. Fire Stations
    - 4. Training facilities
  - B. Types of Apparatus and their Functions
    - 1. Pumpers/Engines
    - 2. Aerial apparatus
    - 3. Water tenders
    - 4. Rescue
    - 5. Special
  - C. Equipment and Tools Carried on Apparatus
  - D. Personal Safety Equipment
- VII. OPERATIONAL FUNCTIONS OF A FIRE DEPARTMENT
  - A. Emergency Operations
  - B. Fire Prevention
  - C. Training
  - D. Administration
  - E. Non-emergency Operations
    - 1. Fire station daily activities/routine
    - 2. Apparatus and equipment maintenance
    - 3. Support services
- VIII. EMERGENCY OPERATIONS
  - A. Personnel
    - 1. Positions
    - 2. Fire company structure
    - 3. Administration
  - B. Alarm System
  - C. Standard Operating Procedures

- IX. FIRE PREVENTION
  - A. Personnel/Positions
  - B. Responsibilities of the Fire Prevention Bureau
    - 1. Inspections
    - 2. Records and reports
    - 3. Investigations
    - 4. Plan review
    - 5. Hazard abatement
    - 6. Public education
    - 7. Enforcement
  - C. Company Inspection Programs
  - D. Fire Information Reporting Systems
- X. TRAINING
  - A. Personnel and Positions
  - B. Skill Development/Maintenance
  - C. Performance Standards
- XI. FIRE ADMINISTRATION
  - A. Personnel and Positions
  - B. Functions
    - 1. Budgets
    - 2. Intra- and Interdepartmental relationships (communications)
    - 3. Management cycle
    - 4. Management by objectives
  - C. Relationship of Fire Department with other Agencies
  - D. Rules and Regulations
    - 1. Department policies
    - 2. Contracts and Memoranda of Understanding
    - 3. Standard Operating Procedures
  - E. Internal and External Influences
    - 1. Fire Service Labor organizations
    - 2. Health and safety regulations
    - 3. Equal employment opportunity and affirmative action programs
    - 4. California Joint Apprenticeship Program
    - 5. Local political bodies
    - 6. Professional Associations
  - F. Computer Applications
- XII. CODES AND ORDINANCES
  - A. Federal, State, and Local
    - 1. Kinds of codes
    - 2. Purpose of codes
    - 3. Contents of codes
  - B. Responsibility for Enforcement
  - C. Relationship of Codes and Standards
  - D. Relationship of Federal, State, and Local Regulations
- XIII. FIRE PROTECTION SYSTEMS AND EQUIPMENT
  - A. Public and Private Systems
    - 1. Water supplies
    - 2. Suppression systems
    - 3. Detection and alarm systems
    - 4. Special hazard systems
  - B. Extinguishing Agents
- XIV. EMERGENCY INCIDENT MANAGEMENT
  - A. Introduction to Strategy Development
  - B. Relationship of Strategy to Tactics
  - C. Incident Command System

**REQUIRED READING:**

Klinoff, Robert. Introduction to Fire Protection. St. Paul. MN: ITP West, 1997.

**SUGGESTED READING:**

**REQUIRED WRITING:**

A 5 - 8 page term paper prepared on any of the following subjects:  
(1) Past history of fire service  
(2) Today's fire service  
(3) Fire service in the future  
(4) The history of a specific fire department

**OUTSIDE ASSIGNMENTS:**

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short term classes.

pproximately six hours per week is required for reading assignments. Students are expected to read assignments, master terminology and complete writing assignment outside of class.

**INSTRUCTIONAL METHODOLOGY:**

Check all that apply:

xx  lecture  
 laboratory  
 lecture-laboratory combination  
 directed study

This course may be offered as a distance education course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes  No xx

If yes, check all that apply. (See guidelines for preparation for definitions.)

telecourse  
 mediated instruction  
 computer assisted instruction

**GRADING POLICY AND STANDARDS** (include methods of determining whether the stated objectives have been met by students):

|                    |     |
|--------------------|-----|
| Quizzes            | 25% |
| Midterm Exam       | 20% |
| Writing Assignment | 15% |
| Final Exam         | 40% |

|   |   |        |
|---|---|--------|
| A | = | >90%   |
| B | = | 80-89% |
| C | = | 70-79% |
| D | = | 60-69% |
| F | = | <60%   |

**IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?**

Yes \_\_\_\_\_ No   x   Number of times course may be taken for  
credit:   1  

If yes, identify specific provision of Title 5 Division 2 section(s)  
55761-55763 and 58161 which qualifies course as repeatable:

**CONTACT PERSON:** Dr. Larry Roberts