



El Camino College
COURSE OUTLINE OF RECORD – Official

Course Acronym:	FTEC
Course Number:	1
Descriptive Title:	Fire Protection Organization
Division:	Health Sciences and Athletics
Department:	Fire and Emergency Technology
Course Disciplines:	Fire Technology
Catalog Description:	This course provides an introduction to fire protection. Emphasis is placed on career opportunities in fire protection and related fields, and the philosophy and history of fire protection. Additional topics include: 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; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; and introduction to fire strategy and tactics.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	ENGL 1 or eligibility for ENGL 1A or qualification by appropriate assessment
Enrollment Limitation:	
Hours Lecture (per week):	3
Hours Laboratory (per week):	0
Outside Study Hours:	6
Total Course Hours:	54
Course Units:	3
Grading Method:	Letter Grade only
Credit Status:	Credit, degree applicable
Transfer CSU:	Yes
Effective Date:	Prior to July 1992
Transfer UC:	No
Effective Date:	
General Education:	ECC
Term:	
Other:	
CSU GE:	

Term:	
Other:	
IGETC:	
Term:	
Other:	
Student Learning Outcomes:	<p>SLO #1 Career Opportunities</p> <p>The Student will be able to identify a minimum of three fire protection career opportunities and the skills and training needed.</p> <p>SLO #2 Technical Training</p> <p>The student will be able to identify 5 types of technical training available for those wishing to be firefighters.</p> <p>SLO #3 Organizational & Administrative Structures</p> <p>The student will be able to identify 2 different types of fire department organizational and administrative structures.</p>
Course Objectives:	<ol style="list-style-type: none"> 1. Analyze and describe the differences among the certificate, two-year and four year degree programs, and State Fire certification program. 2. Compare and contrast educational requirements, duties, and information sources for various occupations in fire protection. 3. Compare and contrast 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 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. Discuss the types of common fire department apparatus, equipment, and personal safety equipment used for firefighting. 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. Define firefighting strategy and tactics. 12. Describe the basic elements of firefighter safety and survival.
Major Topics:	<p>I. OVERVIEW OF FIRE PROTECTION ORGANIZATION (6 hours, lecture)</p> <ol style="list-style-type: none"> A. Career potential assessment <ol style="list-style-type: none"> 1. Assessing an agency 2. Applying for the job 3. Employment processes 4. Physical fitness assessment 5. Career counseling B. Affirmative action <ol style="list-style-type: none"> 1. History and application in the fire service 2. Cultural differences

- C. Gender stereotypes
- D. Ethnic stereotypes
- E. Cross cultural and gender communications
- F. Case studies and direction
- G. Equal Employment Opportunity Commission (EEOC)
 - 1. What is EEOC
 - 2. History and application in the fire service
 - 3. Case studies and discussion
- H. Available training programs
 - 1. In-service
 - 2. Regional
 - 3. State
 - 4. National
- I. Personnel development programs
 - 1. Need for physical fitness
- J. Aspects of firefighter safety and survival

II. FIRE PROTECTION CAREER OPPORTUNITIES (3 hours, lecture)

- 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 (3 hours, lecture)

- A. History of fire protection
 - 1. United States fire protection development
 - 2. Social, political, and economic implications of the fire problem
- B. Major causes of fires in the United States
- C. Fire Losses
 - 1. Deaths and injuries
 - 2. Property damage
- D. Purpose and scope of fire agencies
 - 1. Basic types of local agencies
 - 2. Job titles, duties, and requirements for positions in fire agencies
- E. Defense planning
 - 1. Built environment
 - 2. Insurance Services Office (ISO) grading schedule
 - 3. Master planning
 - 4. Mutual/automatic aid
 - 5. Community role
 - 6. Wildland/urban Interface

IV. PUBLIC AND PRIVATE SUPPORT ORGANIZATIONS (3 hours, lecture)

- 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

V. CHEMISTRY (3 hours, lecture)

- 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
- B. Methods of heat transfer

VI. FIRE DEPARTMENT RESOURCES (3 hours, lecture)

- A. Department facilities
1. Administrative offices
 2. Dispatch/communications centers
 3. Fire stations
 4. Training stations
- B. Types of apparatus and their functions
1. Pumpers/engines
 2. Aerial apparatus
 3. Water tenders
 4. Rescue
 5. Special
- C. Tools and equipment carried on apparatus
- D. Personal safety equipment

VII. OPERATIONAL FUNCTIONS OF A FIRE DEPARTMENT (3 hours, lecture)

- A. Emergency operations
- B. Fire prevention training
- C. Administration
- D. Non-emergency operations
1. Fire station daily activities/routine
 2. Apparatus and equipment maintenance
 3. Support services

VIII. EMERGENCY OPERATIONS (3 hours, lecture)

- A. Personnel
1. Positions

- 2. Fire company structure
- 3. Administration
- B. Alarm system
- C. Standard operating procedures

IX. FIRE PREVENTION (3 hours, lecture)

- A. Personnel and 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. Fire company inspection programs
- D. Fire information reporting systems

X. TRAINING (3 hours, lecture)

- A. Personnel and positions
- B. Skill development/maintenance
- C. Performance standards

XI. FIRE ADMINISTRATION (3 hours lecture)

- A. Personnel and positions
- B. Functions
 - 1. Budgets
 - 2. Intra and interdepartmental
- C. Relationships (communication)
 - 1. Management cycle
 - 2. Management by objectives
- D. Relationships of fire department with other agencies
- E. Rules and regulations
 - 1. Department policies
 - 2. Contracts and memorandums of understanding
 - 3. Standard operating procedures
- F. 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 applications
- G. Computer Applications

XII. CODES AND ORDINANCES (5 hours, lecture)

- A. Federal, state, and local
 - 1. Types of codes

	<ul style="list-style-type: none"> 2. Purpose of codes 3. Contents of codes <ul style="list-style-type: none"> B. Responsibility for enforcement C. Relationship of codes and standards D. Relationship of federal, state, and local regulations <p>XIII. FIRE PROTECTION EQUIPMENT AND SYSTEMS (5 hours, lecture)</p> <ul style="list-style-type: none"> A. Public and private systems <ul style="list-style-type: none"> 1. Water supplies 2. Suppression systems 3. Detection and alarm systems 4. Special hazard systems B. Extinguishing agents <p>XIV. EMERGENCY INCIDENT MANAGEMENT (5 hours, lecture)</p> <ul style="list-style-type: none"> A. Introduction to strategy development B. Relationship of strategy to tactics C. Incident Command System
Total Lecture Hours:	54
Total Laboratory Hours:	0
Total Hours:	54
Primary Method of Evaluation:	1) Substantial writing assignments
Typical Assignment Using Primary Method of Evaluation:	Interview a person who is currently employed in the field of fire and/or emergency technology. Prepare a three-page report which reflects their analysis of the duties, responsibilities and entry level requirements for their position.
Critical Thinking Assignment 1:	Analyze, prepare, and present a three-page report on the fire loss problem in the United States in terms of property loss and fire deaths. Compare and contrast the changes that have occurred over the past thirty years.
Critical Thinking Assignment 2:	Given the positions and functions of the personnel within a hypothetical medium sized fire department, develop an organizational chart that clearly depicts the organizational structure and the chain of command for all personnel.
Other Evaluation Methods:	Class Performance, Completion, Multiple Choice, Objective Exam, Other Exams, Performance Exams, Quizzes, Reading Reports, Term or Other Papers, True/False, Written Homework
Instructional Methods:	Discussion, Field trips, Lecture, Multimedia presentations
If other:	
Work Outside of Class:	Answer questions, Observation of or participation in an activity related to course content (such as theatre event, museum, concert, debate, meeting), Required reading, Study, Written work (such as essay/composition/report/analysis/research)
If Other:	

Up-To-Date Representative Textbooks:	Robert Klinoff. <u>INTRODUCTION TO FIRE PROTECTION AND EMERGENCY SERVICES SIXTH EDITION</u> , Jones and Bartlett Learning, 2021. ISBN 978-1284180169
Alternative Textbooks:	
Required Supplementary Readings:	
Other Required Materials:	
Requisite:	
Category:	
Requisite course(s): List both prerequisites and corequisites in this box.	
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	
Requisite Skill:	
Requisite Skill and Matching Skill(s): Bold the requisite skill(s). If applicable	
Requisite course:	English 1
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	<p>Ability to compose a written report. ENGL 1 - Write a well-reasoned, well-supported expository essay that demonstrates application of the academic writing process.</p> <p>Ability to read and understand fire related material. ENGL 1 - Summarize, analyze, evaluate, and synthesize college-level texts.</p>
Requisite Skill:	eligibility for English 1A or qualification by appropriate assessment
Requisite Skill and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s). If applicable	<p>Ability to compose a written report. Write a well-reasoned, well-supported expository essay that demonstrates application of the academic writing process.</p> <p>Ability to read and understand fire related material. Summarize, analyze, evaluate, and synthesize college-level texts.</p>
Enrollment Limitations and Category:	
Enrollment Limitations Impact:	

Course Created by:	Craig Neumann
Date:	02/01/1988
Original Board Approval Date:	
Last Reviewed and/or Revised by:	Ryan Carey
Date:	10/15/2021
Last Board Approval Date:	12/20/2021