

## Fire Technology

### FT 101 Fire Protection Organization

#### 3.0 units

Acceptable for credit: Transfer CSU

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 fire services, fire service nomenclature, specific protection functions, basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. (Fall, Spring) (Letter Grade or Pass/No Pass)

### FT 102 Fire Prevention Technology

#### 3.0 units

Acceptable for credit: Transfer CSU

Advisories: Completion of or concurrent enrollment in; FT 101 - Fire Protection Organization

Provides fundamental information 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 with fire safety education and detection and suppression systems. (Letter Grade Only)

### FT 103 Fire Protection Equipment and Systems

#### 3.0 units

Acceptable for credit: Transfer CSU

Advisories: Completion of or concurrent enrollment in; FT 101 - Fire Protection Organization

Provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers. (A) (Letter Grade Only)

### FT 104 Building Construction for Fire Protection

#### 3.0 units

Acceptable for credit: Transfer CSU

Advisories: Completion of or concurrent enrollment in; FT 101 - Fire Protection Organization

A study of the components of building construction that relates to fire safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at fires. The development and evolution of building and fire codes will be studied in relationship to past fires in residential, commercial, and industrial occupancies. (A) (Letter Grade Only)

### FT 105 Fire Behavior and Combustion

#### 3.0 units

Acceptable for credit: Transfer CSU

Corequisite: Completion of or concurrent enrollment in

Prerequisite: FT 101 - Fire Protection Organization

This course of study presents theory and fundamentals of how and why fires starts, spread, and are controlled; an in-depth study

of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques. (A) (Letter Grade Only)

### FT 106 Principles of Fire & Emergency Safety & Survival

#### 3.0 units

Acceptable for credit: Transfer CSU

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. (Letter Grade or Pass/No Pass)

### FT 107 Apparatus and Equipment

#### 3.0 units

Acceptable for credit: Transfer CSU

This course exposes the student to mechanized equipment operated by the men and women of the fire service and regulations pertaining to their use. Subject matter includes: driving laws, driving techniques, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment and apparatus maintenance. (U) (Summer) (Letter Grade Only)

### FT 111 Develop A Personal Philosophy of Leadership

#### 2.0 units

Acceptable for credit:

This is the first of four courses in the Public Safety Leadership and Ethics Program that centers on the students introspective look at what makes a good leader and setting a plan to personally move in that direction. (Letter Grade Only)

### FT 112 Leading Others

#### 1.5 units

Acceptable for credit:

Prerequisite: FT 111

Training courses focusing on specialized fire technology topics. Topics will be identified on a periodic basis in conjunction with employment or program/discipline needs. (Letter Grade Only)

### FT 113 Organizational Leaderships

#### 2.0 units

Acceptable for credit:

Prerequisite: FT 112

Training courses focusing on specialized fire technology topics. Topics will be identified on a periodic basis in conjunction with employment or program/discipline needs. (Letter Grade Only)

### FT 130 Principles of Emergency Management

#### 3.0 units

Acceptable for credit: Transfer CSU

An introduction to the fundamentals of the emergency management system. Topics include the four phases of the emergency management cycle, community-focused hazard analysis, and the connection between planning and emergency management. This course is not open to students who have completed or who are enrolled in Emergency Medical Services 130. (F,S,U) (Fall, Spring, Summer) (Letter Grade Only)

### **FT 149 Cooperative Work Experience: Occupational**

**1.0 - 8.0 units**

Acceptable for credit:

- (Letter Grade or Pass/No Pass)

### **FT 307 Firefighter I Academy IA**

**6.0 units**

Acceptable for credit: D - Credit - Degree Applicable

Advisories: EMT Basic or Paramedic or Public Safety First Aid and CPR as defined by California Health and Safety Code, Section 1797.182 NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Technical and manipulative training in concepts of fire department organization and operations. Includes fire behavior, ICS, building construction, safety, rescue, ropes and knots, ladders, low angle rope rescue, hose and appliances, personal protective equipment, and accountability. (Fall, Spring) (Letter Grade Only)

### **FT 308 Firefighter I Academy IB**

**6.0 units**

Acceptable for credit: D - Credit - Degree Applicable

Prerequisite: FT 307 - Firefighter I Academy IA

Technical and manipulative training in concepts of fire department organization and operations. Includes hazardous materials, wildland, fire protection systems, fire investigation, tactics, ladders, loss prevention, oil fire/LPG control, forcible entry. (F,S) (Letter Grade Only)

### **FT 310 Fire Service Physical Fitness**

**2.0 units**

Acceptable for credit: C - Credit - Not Degree Applicable

Advisories: Concurrent enrollment in; FT 307 - Firefighter I Academy IA

Explores the physical demands of the fire service and provides the correct training practices to meet those physical demands. (Letter Grade Only)

### **FT 319 Emergency Response to Terrorism**

**3.0 units**

Acceptable for credit: D - Credit - Degree Applicable

Prerequisite: California State Fire Training certification standards require candidate to have met educational requirements for Fire Fighter I prior to Fire Officer (Level 1 and II) certification or equivalent. NOTE: Approval of equivalent enrollment eligibility is not a guarantee that state regulatory and licensing authorities will also grant equivalency for licensure or employment purposes.

Enables emergency responders to recognize circumstances and key indicators that may signify a terrorist incident or threat potential. Topics include implementing incident command, self-protective measures, scene security, force protection, and defensive measures associated with biological, nuclear, incendiary, chemical, and explosives incidents. Materials and information relevant to current events on emergency preparedness in terrorist incident management for emergency responders of all disciplines are explored. This course is not open to students who are enrolled in or have received credit for Emergency Medical Services 319. (Pass/No Pass)

### **FT 338 Land Navigation**

**2.0 units**

Acceptable for credit: D - Credit - Degree Applicable

A study of mapping and GPS skills as applied to fire, Haz-Mat and EMS emergency response. Emphasizes interpreting topographic maps and use of both the compass and GPS device. This course is not open to students who are enrolled in or have received credit for Emergency Medical Services 338 or Environmental Technology 338. (Fall, Spring) (Pass/No Pass)

### **FT 341 Fire Hydraulics**

**3.0 units**

Acceptable for credit: D - Credit - Degree Applicable

Repeatable: 99.00

Prerequisite: FT 308 - Firefighter I Academy IB ; or State Fire Marshall certified basic fire fighting academy or equivalent as determined by the Director, Fire, Safety, and Emergency Medical Services. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will all grant equivalency

Hydraulic laws and formulas as applied to the fire service, including application of formulas and mental calculations to hydraulic problems, water supply problems, and underwriters' requirements for pumps. Reviews basic mathematics. (A) (Letter Grade or Pass/No Pass)

### **FT 343 Pump Theory**

**0.5 units**

Acceptable for credit: D - Credit - Degree Applicable

Prerequisite: FT 308 - Firefighter I Academy IB ; or State Fire Marshall certified basic fire fighting academy or equivalent as determined by the Director, Fire, Safety, and Emergency Medical Services. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency.

Explores theory and workings of different types of fire pumps. Topics include positive displacement, centrifugal, and varieties of pump impellers. (A) (Pass/No Pass)

### **FT 344 Emergency Vehicle Operations**

**0.5 units**

Acceptable for credit: C - Credit - Not Degree Applicable

Students will learn defensive driving principles and apparatus handling techniques. Driving problems will be presented to the student in both class situations and field examples. The student will gain actual field experience by driving over a prepared course and having to react to different traffic problems. (Fall, Spring) (Letter Grade Only)

### **FT 346 Driver Operator 1B**

**2.0 units**

Acceptable for credit: D - Credit - Degree Applicable

Limitations on Enrollment: Valid Class C Firefighter Endorsed driver's license and Fire Apparatus/Operator 1A (2008 or 2015 version)

Prerequisite: FT 308 - Firefighter I Academy IB or ; or State Fire Marshall certified basic fire fighting academy or equivalent as determined by the Director, Fire, Safety, and Emergency Medical Services. NOTE: Approval of equivalent enrollment eligibility is

not a guarantee that state regulatory and licensing authorities will also grant equivalency for licensure or employment purposes. Provides the student with theory and operation of fire service pumps. Topics include pump maintenance, water supplies, field hydraulics and pump operating techniques. (A) (Pass/No Pass)

### **FT 347 Auto Extrication**

#### **0.5 units**

Acceptable for credit: C - Credit - Not Degree Applicable  
Introduction to the safe and proper techniques for extrication of trapped victims of vehicle accidents. Various tools are used and different extrication methods are presented. (Letter Grade Only)

### **FT 348 Pump Operation for Volunteers**

#### **0.5 units**

Acceptable for credit: D - Credit - Degree Applicable  
Basic theory, methods, and techniques for operating fire service pumps at an emergency scene. (Letter Grade Only)

### **FT 360 Rescue Systems I**

#### **1.5 units**

Acceptable for credit: D - Credit - Degree Applicable  
Prerequisite: FT 308 - Firefighter I Academy IB ; or State Fire Marshall certified basic fire fighting academy or equivalent as determined by the Director, Fire, Safety, and Emergency Medical Services. NOTE: Approval of equivalent enrollment eligibility is not a guarantee that state regulatory and licensing authorities will also grant equivalencies for licensure or employment purposes. Presents various rescue systems, ladders systems, lifting and moving heavy objects, emergency building shores, breaching walls and basic rope rescue. (Pass/No Pass)

### **FT 361 Confined Space Awareness**

#### **units**

Acceptable for credit: C - Credit - Not Degree Applicable  
Introduces fire service personnel to confined space entry/rescue training as required by CAL-OSHA title 8 General Safety Orders. (Letter Grade Only)

### **FT 362 Confined Space Rescue Technician**

#### **1.0 unit**

Acceptable for credit: C - Credit - Not Degree Applicable  
Prerequisite: FT 308 - Firefighter I Academy IB ; or State Fire Marshall certified basic fire fighting academy or equivalent as determined by the Director, Fire, Safety, and Emergency Medical Services. NOTE: Approval of equivalent enrollment eligibility is not a guarantee that state regulatory and licensing authorities will also grant equivalencies for licensure or employment purposes. Identification of confined spaces and familiarization with CAL-OSHA and federal regulations. Techniques for hazard mitigation will be explored. (Fall, Spring) (Letter Grade or Pass/No Pass)

### **FT 363 Low Angle Rescue**

#### **1.0 unit**

Acceptable for credit: C - Credit - Not Degree Applicable  
Provides information on the skills, equipment and techniques that are necessary to successfully accomplish a basic low angle rescue. (Letter Grade Only)

### **FT 364 Advanced Cliffside Rescue**

#### **0.0 units**

Acceptable for credit: C - Credit - Not Degree Applicable  
Course provides information on the skills necessary to safely effect complex or multiple cliffside rescues. It emphasizes helicopter and night rescues. (Letter Grade Only)

### **FT 365 Emergency Trench Rescue Oper**

#### **1.0 unit**

Acceptable for credit: C - Credit - Not Degree Applicable  
Presents the skills necessary to extricate trapped people (or animals) from a collapsed trench. Securing the site and methods for removing victims will be emphasized. (Letter Grade Only)

### **FT 370 Introduction to Surf Rescue**

#### **0.5 units**

Acceptable for credit: C - Credit - Not Degree Applicable  
Designed to acquaint rescue personnel with the surf environment, surf rescue equipment, and safe surf rescue practices. (Letter Grade Only)

### **FT 399 Special Topics in Fire Technology**

#### **0.5 - 3.0 units**

Acceptable for credit:  
- (Letter Grade or Pass/No Pass)

### **FT 410 Volunteer Firefighter**

#### **3.0 units**

Acceptable for credit: C - Credit - Not Degree Applicable  
Provides the volunteer firefighter with the minimum safety and technical training required for them to function in an effective, competent manner. (Letter Grade Only)

### **FT 483 Competency of Ignition Sources**

#### **1.0 unit**

Acceptable for credit: D - Credit - Degree Applicable  
Theory and fundamentals of how to conduct fire investigation in structures. Required course in order to maintain certification as a Certified Fire Investigator (CFI). (Fall, Spring) (Pass/No Pass)