

Degree: A.A. - Fire Technology  
 Certificate: Fire Technology

Dean: Richard W. McKee  
 Director: Albert Iannone  
 Phone: (916) 570-5000  
 Counseling: (916) 484-8572

## Fire Technology Degree and Certificate

The Fire Technology A.A. degree or certificate focuses on preparation for a career in the fire service. It includes educational opportunities for those currently employed within the fire service, and those within volunteer fire agencies. Courses include those required for transfer to four-year colleges, those required to meet eligibility requirements for employment, and those required for incentive salary increases.

### Career Opportunities

A great variety of career opportunities is open to students who successfully complete specific portions of this program of study. There is an urgent demand for trained personnel in such areas as fire investigation, fire prevention, hazardous materials, public education, and firefighter. Financially and professionally rewarding employment in these areas may be found on the local, state, federal and private levels.

| Requirements for Degree or Certificate               |  | 35 units |
|--|--|----------|
| FT 200   | Emergency Medical Technician I (5)           | 5        |
| or PMED 100  | Emergency Medical Technician - Basic (5)     |          |
| FT 300   | Fire Protection Organization                 | 3        |
| FT 301   | Fire Prevention Technology                   | 3        |
| FT 302   | Fire Protection Equipment and Systems        | 3        |
| FT 303   | Building Construction for Fire Protection    | 3        |
| FT 304   | Fire Behavior and Combustion                 | 3        |
| <i>And a minimum of 15 units from the following:</i> |  | 15       |
| FT 110   | Fire Apparatus (3)                           |          |
| FT 130   | Fire Company Organization and Management (3) |          |
| FT 132   | Fire Service Records and Reports (3)         |          |
| FT 140   | Related Codes and Ordinances (3)             |          |
| FT 170   | Fire Investigation (3)                       |          |
| FT 180   | Rescue Practices (3)                         |          |
| FT 190   | Fire Tactics and Strategy (3)                |          |
| FT 192   | Wildland Fire Control (3)                    |          |
| FT 310   | Fire Service Hydraulics (3)                  |          |
| FT 320   | Hazardous Materials (3)                      |          |

**Associate Degree Requirements:** The Fire Technology Associate in Arts (A.A.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See ARC graduation requirements.

### FT 110 Fire Apparatus 3 Units

*Formerly: FT 73*  
*Prerequisite: None*  
*Advisory: FT 300 or FIRE 1090.*  
*Hours: 54 hours LEC*

This course covers fire apparatus design, specifications and performance capabilities. It also includes the effective utilization of apparatus in fire service emergencies.

### FT 130 Fire Company Organization and Management 3 Units

*Formerly: FT 61*  
*Prerequisite: None*  
*Advisory: FT 300 or FIRE 1090.*  
*Hours: 54 hours LEC*

This course provides a review of fire department organization, planning, organizing and supervising to meet the needs of the fire department, with emphasis on the company officer's role.

### FT 132 Fire Service Records and Reports 3 Units

*Formerly: FT 62*  
*Prerequisite: None*  
*Advisory: FT 300 or FIRE 1090.*  
*Hours: 54 hours LEC*

This course covers fire department records systems, principles of report writing, applications in the area of pre-fire survey, and post-fire reporting.

### FT 140 Related Codes and Ordinances 3 Units

*Formerly: FT 63*  
*Prerequisite: None*  
*Advisory: FT 300 or FIRE 1090.*  
*Hours: 54 hours LEC*

This course includes familiarization and interpretation of national, state and local codes, ordinances and laws which influence the field of fire prevention.

### FT 170 Fire Investigation 3 Units

*Formerly: FT 65*  
*Prerequisite: None*  
*Advisory: FT 300 or FIRE 1090.*  
*Hours: 54 hours LEC*

This course includes determining the cause of fires (accidental, suspicious and incendiary); types of fires, related laws; introduction to incendiary fires; recognizing and preserving evidence; interviewing witnesses and suspects, arrest, detention, and court procedures.

### FT 180 Rescue Practices 3 Units

*Formerly: FT 68*  
*Prerequisite: None*  
*Advisory: FT 300 or FIRE 1090.*  
*Hours: 54 hours LEC*

This course focuses on rescue problems and techniques, emergency rescue equipment; toxic gases, chemicals, diseases, and radiation hazards. Also included are the care of victims including emergency childbirth, respiration and resuscitation, extrication and other emergency conditions.

**FT 190 Fire Tactics and Strategy 3 Units**

*Formerly: FT 66*

*Prerequisite: None*

*Advisory: FT 300 or FIRE 1090.*

*Hours: 54 hours LEC*

This course includes principles of fire control through the utilization of manpower, equipment, and extinguishing agents on the fireground.

**FT 192 Wildland Fire Control 3 Units**

*Prerequisite: None*

*Advisory: FT 300 or FIRE 1090.*

*Hours: 54 hours LEC*

This course covers all aspects of wildland fire fighting and introduces new advances in technology for wildland fire suppression.

**FT 200 Emergency Medical Technician I (Same as PMED 100) 5 Units**

*Formerly: FT 77*

*Same As: PMED 100.*

*Prerequisite: HEED 310 or current Cardiopulmonary Resuscitation certification*

*Hours: 72 hours LEC; 72 hours LAB*

This course is designed to instruct a student to the level of Emergency Medical Technician I. This includes all skills necessary for the individual to provide emergency medical care at a basic life support level with a fire, ambulance or other specialized service. This course is conducted in compliance with Title 22, Division 9, Chapter 2 of the California Code of Regulation and Emergency Medical Technician I. A grade of "C" or better is required for certification as EMT-1. Not open to students who have taken Paramedic 100. May be repeated by students whose EMT certification has lapsed.

**FT 209 Emergency Medical Technician IFS Refresher Course 1 Unit**

*Formerly: FT 78*

*Prerequisite: Valid EMT certificate.*

*Hours: 20 hours LEC; 4 hours LAB*

Persons who hold a valid Emergency Medical Technician I certificate, or a certificate that has been expired for less than one year, shall be admitted. Consists of classroom instruction, simulation and supervised field instruction. May be taken four times for credit.

**FT 300 Fire Protection Organization 3 Units**

*Prerequisite: None*

*Course Transferable to CSU*

*Hours: 54 hours LEC*

This course provides an introduction to fire protection, career opportunities and related fire service fields. Topics include 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, and introduction to fire strategy and tactics.

**FT 301 Fire Prevention Technology 3 Units**

*Prerequisite: None*

*Corequisite: FIRE 1090 or FT 300.*

*Course Transferable to CSU*

*Hours: 54 hours LEC*

This course provides fundamental information regarding the history and philosophy of fire prevention. Topics include organization and operation of a fire prevention bureau, use of fire and building codes, fire investigation, identification and correction of fire hazards, plan review, report and record keeping, and duties and responsibilities of a fire prevention officer.

**FT 302 Fire Protection Equipment and Systems 3 Units**

*Prerequisite: None*

*Corequisite: FIRE 1090 or FT 300.*

*Course Transferable to CSU*

*Hours: 54 hours LEC*

This course provides information relating to sprinkler design and the operation of fire detection and alarm systems. Topics include fire cause and effect, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, standpipe systems, and portable fire extinguishers.

**FT 303 Building Construction for Fire Protection 3 Units**

*Prerequisite: None*

*Corequisite: FIRE 1090 or FT 300.*

*Course Transferable to CSU*

*Hours: 54 hours LEC*

This course is the study of the components of building construction that relate to fire safety. Specific focus is on elements of construction and the design of structures that are shown to be key factors when inspecting buildings, pre-planning fire operations and emergency operations at fires. Topics include wood, ordinary, steel, and concrete construction, principles of fire and smoke growth, and fire resistance construction.

**FT 304 Fire Behavior and Combustion 3 Units**

*Prerequisite: None*

*Corequisite: FIRE 1090 or FT 300.*

*Course Transferable to CSU*

*Hours: 54 hours LEC*

This course provides the theories and fundamentals of how and why fires start, spread and are controlled. Topics include an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques.

**FT 310 Fire Service Hydraulics 3 Units**

*Formerly: FT 7*

*Prerequisite: None*

*Advisory: FT 300 or FIRE 1090.*

*Course Transferable to CSU*

*Hours: 54 hours LEC*

This course provides information on obtaining water from various sources of supply, properly routing it through the pump, and discharging it through various devices with the proper pressures for fire suppression.

**FT 320 Hazardous Materials 3 Units**

*Formerly: FT 6*

*Prerequisite: None*

*Advisory: FT 300 or FIRE 1090.*

*Course Transferable to CSU*

*Hours: 54 hours LEC*

This course is an Introduction to the world of hazardous chemicals, including physical properties, uses in industry, and characteristics when involved in spills, fires, and accidents. This course also provides basic hazardous materials information regarding emergency procedures, legal requirements, and compliance to regulations.