

# Fire Technology

**ACADEMIC  
COUNSELING**

Folsom campus - 916-608-6500  
El Dorado Center - 530-642-5645  
Rancho Cordova Center - 916-255-0717

The fire service is one of the most dynamic employers in the country. The course at Folsom Lake College complements the American River College and Cosumnes River College programs, which are designed to provide the student with updated skills and knowledge necessary to complete and successfully apply for fire service positions.

## Career Options

Firefighter; Inspector; Investigator; Plan Checker; Supervisor; Manager

*Some career options may require more than two years of college study. Classes beyond the associate degree may be required to fulfill some career options or for preparation for transfer to a university program.*

## Highlights

- Up-to-date technical information
- Field trips to a variety of fire service locations
- Networking with other fire service members
- Fire Technology work experience internships (Fire Technology 498 for on-the-job experience)

## Fire Technology (FT)

### FT 110 FIRE APPARATUS 3 UNITS

Prerequisite: None.

Advisory: FT 300

Hours: 54 hours lecture

This course introduces students to many aspects of fire apparatus. Students are acquainted with apparatus design, specifications, and performance capabilities. Emphasis includes effective use of fire apparatus during fire emergencies.

### FT 132 FIRE SERVICE RECORDS AND REPORTS 3 UNITS

Prerequisite: None.

Advisory: FT 300

Hours: 54 hours LEC

This course is for all members of the fire service in the use of typical records and report systems. The course expands knowledge and understanding of the fire department records systems, principles of report writing. It also covers applications in pre-fire survey, post-fire reporting, research, and planning.

### FT 170 FIRE INVESTIGATION 3 UNITS

Prerequisite: None.

Advisory: FT 300

Hours: 54 hours lecture

This course introduces students to the implications of accidental, suspicious, and incendiary causes of fire and examines arson as a crime. Students will analyze the methods used in gathering evidence at a crime scene, the developments of court procedures, the techniques of interviewing witnesses and suspects, and detention procedures for adults and juveniles.

### FT 180 RESCUE PRACTICES 3 UNITS

Prerequisite: None.

Advisory: FT 300 and HEED 314

Hours: 54 hours lecture

This course will introduce students to current rescue practices, procedures, and techniques used in the fire service. Course topics will include ladder rescue and escape, rapid intervention, operations, main search rope, and firefighter rescue and survival. Completion of the course will provide students with knowledge and skills needed for safe operation with the fire service.

### FT 190 FIRE TACTICS AND STRATEGY 3 UNITS

Prerequisite: None.

Advisory: FT 300

Hours: 54 hours lecture

This course introduces the relationship between tactics and strategies on the fireground and emergency scene. Topics include principles of fire control through the utilization of manpower, equipment, and extinguishing agents on the fireground. The course will take an all-risk approach to multiple types of target hazards and approaches.

### FT 192 WILDLAND FIRE CONTROL 3 UNITS

Prerequisite: None.

Advisory: FT 300

Hours: 54 hours lecture

This course covers fundamental components of wildland fire fighting. Firefighters requiring additional skills, experiences, and knowledge surrounding wildland fire will benefit. Also benefiting, are firefighters with primary and intermittent wildland responsibilities and those called into wildland fire situations and mutual aid response.

### 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, and fire departments as part of the local government. Additional topics include laws and regulations affecting the fire service, fire service nomenclature, specific fire protection functions, and basic fire chemistry and physics. This course is an introduction to fire strategy and tactics, and fire protection systems.

### FT 301 FIRE PREVENTION TECHNOLOGY 3 UNITS

Prerequisite: None.

Corequisite: FT 300

Course Transferable to CSU

Hours: 54 hours LEC

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

### FT 302 FIRE PROTECTION EQUIPMENT AND SYSTEMS 3 UNITS

Prerequisite: None.

Corequisite: FT 300 (Fire Protection Organization)

Hours: 54 hours lecture

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: FT 300 (Fire Protection Organization)

Hours: 54 hours lecture

This course is the study of the components of building construction that relate to the fire service. 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, steel, and concrete construction, principles of fire and smoke growth, and fire resistance construction.

### FT 304 FIRE BEHAVIOR AND COMBUSTION 3 UNITS

Prerequisite: None.

Advisory: 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 305 LEADERSHIP AND ETHICS FOR FIRE SERVICE PERSONNEL 3 UNITS

Prerequisite: None.

Course Transferable to CSU

Hours: 54 hours LEC

This course is designed to provide students with a detailed description of the characteristics of a successful fire service leader. The course will focus on how to develop leadership skills and how to implement them into the modern fire service. Students will learn how to use ethical decision making processes that are important to the emergency scene operations and the day to day fire service situations.

**FT 310 FIRE SERVICE HYDRAULICS 3 UNITS**

Prerequisite: None.

Advisory: FT 300 and MATH 30

Course Transferable to CSU (pending)

Hours: 54 hours lecture

Description: This course covers the theory of water hydraulics, hydraulic distribution systems, hydraulic practices, and extinguishing agents used with fire service hydraulics. Additional topics include: the properties of water in rest and motion, water velocity and discharge, distribution systems, fire service pumps, friction loss calculations, engine and nozzle pressures, and fire streams. Other topics will focus on standpipe systems, automatic sprinkler systems, and foam systems. This course is a part of the Fire Technology certificate.

**FT 498 WORK EXPERIENCE IN FIRE TECHNOLOGY 1-4 UNITS**

Prerequisite: None

Course Transferable to CSU

Hours: 18 hours LEC ; 54 hours LAB