Fire Technology

Overview

The fire service is one of the most dynamic employers in the country. This CRC program is designed to provide the student with updated skills and knowledge necessary to complete and successfully apply for fire service positions. The curriculum serves as an inservice program as well as a pre-employment program for students seeking employment or advancement in the profession of urban fire fighting and fire suppression.

The Fire Technology program is accredited by the California State Fire Marshal – State Fire Training.

State Fire Marshal's Office
2251 Harvard St. #400
Sacramento, CA 95815

Degrees and Certificates Offered

A.S. in Fire Prevention
A.S. in Fire Technology
Firefighter Suppression Specialist Certificate

Associate Degrees

A.S. in Fire Prevention

The fire service is one of the most dynamic employers in the country. This CRC program is designed to provide the student with updated skills and knowledge necessary to complete and successfully apply for fire service positions. The curriculum serves as an in-service program as well as a pre-employment program for students seeking employment or advancement in the profession of fire prevention.

Catalog Date: January 1, 2022

Degree Requirements

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT 300</td>
<td>Fire Protection Organization</td>
<td>3</td>
</tr>
<tr>
<td>FT 301</td>
<td>Fire Prevention Technology</td>
<td>3</td>
</tr>
<tr>
<td>FT 302</td>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
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<tr>
<td>FT 303</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FT 304</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FT 498</td>
<td>Work Experience in Fire Technology</td>
<td>0.5 - 4</td>
</tr>
</tbody>
</table>

A minimum of 9 units from the following:

<table>
<thead>
<tr>
<th>COURSE CODE</th>
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</thead>
<tbody>
<tr>
<td>BIT 100</td>
<td>Introduction to the International Building Code (3)</td>
</tr>
<tr>
<td>BIT 102</td>
<td>Plan Reading and Non-Structural Plan Review (3)</td>
</tr>
<tr>
<td>BIT 104</td>
<td>International Building Code - Fire &amp; Life Safety (3)</td>
</tr>
<tr>
<td>BIT 130</td>
<td>Introduction to Inspection of Wood Frame Construction (3)</td>
</tr>
</tbody>
</table>

Total Units: 24.5 - 28

The student must have 1-4 units of work experience in Fire Prevention to receive a degree.

The Fire Prevention Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.
Upon completion of this program, the student will be able to:

- **PSLO #1:** Comprehend the qualifications for entry level skills, the discipline and evaluation process, fire service structure, history, and culture for the field of fire prevention.
- **PSLO #2:** Identify and comprehend laws, regulations, codes, standards and the regulatory and advisory organizations that influence fire prevention operations.
- **PSLO #3:** Analyze and determine the causes of fire, extinguishing agents, stages of fire, fire development, and methods of heat transfer.
- **PSLO #4:** Identify and describe the common types of building construction and conditions associated with structural collapse.
- **PSLO #5:** Differentiate between fire detection and fire suppression systems.

### Career Information

Fire Inspector, Fire Investigator, Plans Examiner, Building Inspector, Fire Prevention Specialist/Officer, Public Education Specialist/Officer, Manager, Firefighter

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

### A.S. in Fire Technology

The fire service is one of the most dynamic employers in the country. This CRC program is designed to provide the student with updated skills and knowledge necessary to complete and successfully apply for fire service positions. The curriculum serves as an inservice program as well as a pre-employment program for students seeking employment or advancement in the profession of urban fire fighting and fire suppression.

### 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)

**NOTE TO TRANSFER STUDENTS:** If you are interested in transferring to a four-year college or university to pursue a bachelor's degree in this major, it is critical that you meet with a CRC counselor to select and plan the courses for your major. Schools vary widely in terms of the required preparation. The courses that CRC requires for an Associate's degree in this major may be different from the requirements needed for the Bachelor's degree.

### Catalog Date: January 1, 2022

### Degree Requirements

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<td>FT 304</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FT 305</td>
<td>Firefighter Safety and Survival</td>
<td>3</td>
</tr>
<tr>
<td>FT 320</td>
<td>Hazardous Materials</td>
<td>3</td>
</tr>
<tr>
<td>EMT 115</td>
<td>Emergency Medical Technician (EMT) Didactic Introduction</td>
<td>1.5&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>EMT 116</td>
<td>Emergency Medical Technician (EMT) Didactic Conclusion</td>
<td>5</td>
</tr>
<tr>
<td>EMT 117</td>
<td>Emergency Medical Technician (EMT) Practicum</td>
<td>1.5&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
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<td>FT 498</td>
<td>Work Experience in Fire Technology (0.5 - 4)</td>
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**A minimum of 9 units from the following:**

- FT 110 Fire Apparatus (3)
- FT 130 Fire Company Organization and Management (3)
- FT 170 Fire Investigation (3)
- FT 180 Rescue Practices (3)
- FT 190 Fire Tactics and Strategy (3)
- FT 210 Firefighter Academy for the Internship Program (Structure Module) (9.5)

and FT 211 Firefighter Academy for the Internship Program (Haz Mat, Wildland, Confined Space Modules) (3.75)

Total Units: 38.5 - 42

<sup>1</sup>A current California EMT certificate or Paramedic license will be accepted as satisfactory completion of the EMT course requirement.

<sup>2</sup>The student must have 1-4 units of work experience in Firefighting or Emergency Medical Services to receive a degree.

The Fire Technology Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

### Student Learning Outcomes

Upon completion of this program, the student will be able to:
PSLO #1: Comprehend the qualifications for entry level skills, the discipline and evaluation process, fire service structure, history, and culture for the field of fire technology.

PSLO #2: Analyze, appraise, and evaluate fire incidents and components of emergency management and firefighter safety.

PSLO #3: Comprehend laws, regulations, codes, standards and the regulatory and advisory organizations that influence fire department operations.

PSLO #4: Develop policies, procedures, and training programs to inform and educate population in fire prevention principles and fire and life safety practices.

PSLO #5: Recognize system approaches to property classes; assessing life safety as it relates to fire protection in special occupancies and understanding fire protection in warehouse and storage operations.

PSLO #6: Analyze facility fire hazard management to include capturing knowledge of property fire insurance, building construction and/or field experience; performing fire/property surveys involving detailed analyses; observation, examination, inspection, and gathering of data to describe all aspects of a property/building and business; conducting complex inspection surveys of commercial and residential properties to evaluate physical characteristics of a property and business.

PSLO #7: Evaluate fire detection and fire suppression systems.

PSLO #8: Describe the appropriate uses and maintenance for apparatus and equipment used in the fire service.

Career Information

Firefighter; Inspector; Investigator; 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.

Certificate of Achievement

Firefighter Suppression Specialist Certificate

The fire service is one of the most dynamic employers in the country. This CRC program is designed to provide students with updated skills and knowledge necessary to complete and successfully apply for fire service positions. The purpose of the Fire Suppression Specialist Certificate is to recognize, through certification, qualified individuals who are dedicated to curtailing fire loss, both physical and financial, and who have acquired a level of professionalism through applied work experiences and related education opportunities, and through successful completion of a certification examination.

The curriculum serves as an in-service program as well as a pre-employment program for students seeking employment or advancement in the profession of urban fire fighting, fire prevention, and public and private fire suppression.

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)

Catalog Date: January 1, 2022

Certificate Requirements

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<tr>
<td>FT 210</td>
<td>Firefighter Academy for the Internship Program (Structure Module) (9.5)</td>
<td>13.25</td>
</tr>
<tr>
<td>and FT 211</td>
<td>Firefighter Academy for the Internship Program (Haz Mat, Wildland, Confined Space Modules) (3.75)</td>
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</tr>
<tr>
<td>FT 320</td>
<td>Hazardous Materials</td>
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A minimum of 16 units from the following:

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Total Units: 43.25

1 A current California EMT certificate or Paramedic license will be accepted as satisfactory completion of the EMT course requirement.

2 Students should take 4 units of Fire Technology Work Experience (FT 498) each semester for 4 semesters, earning a total of 16 units of work experience through FT 498.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- PSLO 1: Comprehend the qualifications for entry level skills, the discipline and evaluation process, fire service structure, history, and culture for the field of fire technology.
- PSLO 2: Analyze, appraise, and evaluate fire incidents and components of emergency management and firefighter safety.
- PSLO 3: Comprehend laws, regulations, codes, standards, and the regulatory and advisory organizations that influence fire department operations.
- PSLO 4: Develop policies, procedures, and training programs to inform and educate population in fire prevention principles and fire and life safety practices; understand proper design, installation, and maintenance of electrical systems and appliances while identifying the components that, alone or in combination, form emergency and standby power systems; analyze the dynamics of heating systems; identify basic components of and the hazards associated with ‘hot work’ and the manufacturing processes necessary for effective fire prevention.
- PSLO 5: Analyze facility fire hazard management to include capturing knowledge of property fire insurance, building construction and/or field experience; performing fire/property surveys involving detailed analyses; observation, examination, inspection, and gathering of data to describe all aspects of a property/building and business; conducting complex inspection surveys of commercial and residential properties to evaluate physical characteristics of a property and business.
- PSLO 6: Evaluate fire detection and fire suppression systems.
- PSLO 7: Describe the appropriate uses and maintenance for apparatus and equipment used in the fire service.
- PSLO 8: Evaluate fire detection and fire suppression systems.
- PSLO 9: Recognize system approaches to property classes; assessing life safety as it relates to fire protection in special occupancies and understanding fire protection in warehouse and storage operations.
- PSLO 10: Define organizations for fire and rescue services; perform pre-incident planning for industrial and commercial facilities, interpret operations of fire loss prevention and
emergency organizations, understand operations of emergency medical services, describe municipal fire prevention and code enforcement operations; train fire and emergency services; understand the use and function of fire and emergency services protective clothing and protective equipment; and evaluate fire department resources and the placement thereof.

Career Information
Firefighter; Fire Inspector; Investigator; Supervisor; Manager, Plans Examiner; Building Inspector; Fire Prevention Specialist/Officer; Public Education Specialist/Officer

Fire and Forestry Services (FFS) Courses

FFS 299 Experimental Offering in Fire and Forestry Services

Units: 0.5 - 4
Prerequisite: None.
Catalog Date: January 1, 2022

This is the experimental courses description.

FFS 499 Experimental Offering in Fire and Forestry Services

Units: 0.5 - 4
Prerequisite: None.
Catalog Date: January 1, 2022

This is the experimental courses description.

FFS 1540 Introduction to Wildland Fire Behavior (S-190)

Units: 0.25
Hours: 7 hours LEC
Prerequisite: None.
Enrollment Limitation: To enroll in this course (FFS 1540) the student must be an employee of a federal wildland fire fighting agency, which includes: United States Department of Agriculture, Forest Service, the United States Department of Interior's Bureau of Land Management, National Park Service, United States Fish and Wildlife Service, the Bureau of Indian Affairs, or a member of a local or state fire agency.
Catalog Date: January 1, 2022

This is the first course in a series that collectively serves to develop fire behavior prediction knowledge and skills. Topics include the fire triangle, topography, fuels, weather, and fire behavior. Pass/No Pass only.

Fire Technology (FT) Courses

FT 110 Fire Apparatus

Units: 3
Hours: 54 hours LEC, 40 hours LAB
Prerequisite: None.
Advisory: FT 130 or FT 300, or employment as a firefighter
Catalog Date: January 1, 2022

This course covers various aspects of fire apparatus. Topics include design, typing, specifications, construction, performance capabilities, and maintenance. This course includes principles and techniques for maintaining and operating fire service pumping and other mobile apparatus. The course includes fire service equipment and apparatus troubleshooting; principles and techniques of preventive maintenance; construction and operation of fire service pumps and pump accessories; basic highway operating techniques for fire apparatus; fire apparatus specifications and testing procedures. Also included are warning devices and the utilization of apparatus in fire service emergencies. Effective utilization of equipment on the fireground will be the focus with emphasis on practical applications. Students will also become familiar with use of pumping charts and associated industry related materials for task proficiency.

FT 130 Fire Company Organization and Management

Units: 3
Hours: 54 hours LEC
Prerequisite: Company Officer is the preferred prerequisite, however, the minimum qualifications of Firefighter II in accordance with the State of California Office of the Fire Marshal may be accepted at the discretion of the instructor as this course meets Company Officer 2A instruction.
Advisory: FT 300 or employment as a firefighter.
Catalog Date: January 1, 2022

An in-depth review of the operation, organization and planning concepts of today's fire departments. Emphasizes the functions of management including budgeting, time management, delegation, motivation, and discipline. Explores concepts of continuous improvement, team-building, and principles of quality management, relative to fire service operations.

FT 170 Fire Investigation
This course focuses on determining causes of fires (accidental, suspicious and incendiary), the types of fires, related laws, an introduction to arson and incendiarism, recognizing and preserving evidence, the interviewing of witnesses and suspects, arrest and detention procedures, court procedures and giving court testimony.

**FT 180 Rescue Practices**

- **Units:** 3
- **Hours:** 38 hours LEC; 48 hours LAB
- **Prerequisite:** None
- **Advisory:** FT 300 or employment as a firefighter
- **Catalog Date:** January 1, 2022

This course focuses on the identification and management of rescue situations, such as proper utilization and awareness of equipment, tools, and techniques to handle various rescue situations. Topics include vehicle extrication, water rescue, vertical rescue, building collapse, radiation hazards, hazardous materials rescue, fire situations including rapid intervention awareness, and other emergency situations. A strong emphasis will be placed on practicum of rescuer efficiency to include pass/fail evaluations of delivered material and each candidate is subject to meeting the criteria for successful certification set forth by the OFM.

**FT 190 Fire Tactics and Strategy**

- **Units:** 3
- **Hours:** 54 hours LEC
- **Prerequisite:** FT 300 with a grade of "C" or better
- **Advisory:** FT 301, 302, 303, and 304; or employment as a firefighter.
- **Catalog Date:** January 1, 2022

This course provides the study of fundamental principles of fire tactics and strategy under fireground conditions and procedures for effective development and application of pre-fire plans. Fire emergency problems are critically analyzed and definitive coping strategies are examined as it relates to staffing resources, equipment and extinguishing agents available during the emergency incident. This course meets the National Fire Academy, Fire and Emergency Services Higher Education (FESHE) curriculum model for the Strategy and Tactics Course. This course is also aligned with the State of California Fire Marshal “All Risk Command for Company Officers” (2D) certification track series.

**FT 210 Firefighter Academy for the Internship Program (Structure Module)**

- **Units:** 9.5
- **Hours:** 99.25 hours LEC; 219.75 hours LAB
- **Prerequisite:** FT 300 with a grade of "C" or better; Current EMT Certification in the State of California. BLS Provider or BLS for the Healthcare Provider from American Heart Association; or current American Red Cross CPR for Professional Rescuer. CPR certification must remain current for the entire internship. The student must meet other Academy requirements including but not limited to: drug screening, background check, purchasing firefighting personal protective equipment, college GPA of 2.5, physical, physical ability test, respirator fit testing, valid California driver’s license, be able to acquire a Candidate Physical Ability Test (CPAT) card prior to the end of the academy. Students applying for FT 210 must pass a fire interview oral board to be accepted into the course.
- **Corequisite:** FT 498; Students must complete the FEMA independent study courses: IS-100, IS-200, IS-700, IS-800 prior to being accepted into the course. These courses may be found online through FEMA’s ICS Resource Center. These courses are free of charge and are self-paced online courses.
- **Enrollment Limitation:** All students must be enrolled in FT 498 to sign up for FT 210.
- **Catalog Date:** January 1, 2022

FT 210 is the first of two modules (FT 211 is the second) of the Firefighter Academy to provide the techniques and skills to work effectively and safely within the fire environment as well as in the fire department. This Firefighter Academy is a partnership with CSD Fire Department. It is a State Certified Regional Fire Academy. Students that successfully complete this course along with FT 211 and the CRC/CSD Firefighter work experience program (FT 498) are allowed to apply for the State of California Fire Fighter I and II certification. Topics include indoctrination into the fire service, general maintenance, apparatus and equipment operations, fire control, salvage, fire prevention and public education, fire and arson investigation, rapid intervention crew tactics, physical fitness/wellness, emergency care, and forcible entry. Students may be charged a lab fee for personal protective equipment (PPE) in the use of and maintenance of structural firefighter turnouts and equipment in this course. Students will also be responsible for purchasing other equipment, liability insurance and uniforms. Pass/no pass only.

**FT 211 Firefighter Academy for the Internship Program (Haz Mat, Wildland, Confined Space Modules)**

- **Units:** 3.75
- **Hours:** 54 hours LEC; 36.95 hours LAB
- **Prerequisite:** FT 210; Current EMT Certification in the State of California. BLS Provider or BLS for the Healthcare Provider from American Heart Association; or current American Red Cross CPR for Professional Rescuer. CPR certification must remain current for the entire internship. The student must meet other Academy requirements including but not limited to: drug screening, background check, purchasing firefighting personal protective equipment, college GPA of 2.5, physical, physical ability test, respirator fit testing, valid California driver’s license, be able to acquire a Candidate Physical Ability Test (CPAT) card prior to the end of the academy.
- **Corequisite:** FT 498
- **Enrollment Limitation:** All students must be enrolled in FT 498 to sign up for FT 211.
- **Catalog Date:** January 1, 2022

FT 211 is the second of two classes (FT 210 is the first) of the Firefighter Academy to provide the techniques and skills to work effectively and safely within the fire environment as well as in the fire department. This Firefighter Academy is a partnership with CSD Fire Department. It is a State Certified Regional Fire Academy. Students that successfully complete this course along with FT 210 and the CRC/CSD Firefighter work experience program (FT 498) are allowed to apply for the State of California Fire Fighter I and II certification. Topics include indoctrination into the fire service, general maintenance, apparatus and equipment operations, fire control, salvage, fire prevention and public education, fire and arson investigation, rapid intervention crew tactics, physical fitness/wellness, emergency care, and forcible entry. Students may be charged a lab fee for personal protective equipment (PPE) in the use of and maintenance of structural firefighter turnouts and equipment in this course. Students will also be responsible for purchasing other equipment, liability insurance and uniforms. Pass/no pass only.
FT 295 Independent Studies in Fire Technology

Units: 1 - 3
Hours: 54 - 162 hours LAB
Prerequisite: None.
Catalog Date: January 1, 2022

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of "Special Studies" for full details of Independent Studies.

FT 299 Experimental Offering in Fire Technology

Units: 0.5 - 4
Prerequisite: None.
Catalog Date: January 1, 2022

This is the experimental courses description.

FT 300 Fire Protection Organization

Units: 3
Hours: 54 hours LEC
Prerequisite: None.
Transferable: CSU
C-ID: C-ID FIRE 100X
Catalog Date: January 1, 2022

This course provides an introduction to fire protection and emergency services. Fire Protection Organization is recommended as the first course in the series of fire technology courses. Topics covered include: career opportunities in fire protection and related fields; culture and history of emergency services; 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; an introduction to fire protection systems; and an introduction to fire strategy and tactics; life safety initiatives. This course meets the National Fire Academy, Fire and Emergency Services Higher Education (FESHE) curriculum model for the Principles of Emergency Services.

FT 301 Fire Prevention Technology

Units: 3
Hours: 54 hours LEC
Prerequisite: FT 300
Advisory: FT 300 with a grade of "C" or better
Transferable: CSU
C-ID: C-ID FIRE 110X
Catalog Date: January 1, 2022

This course provides fundamental knowledge relating to the field of fire prevention, history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use and application of codes and standards, plans review, fire inspection practices with identification and correction of fire hazards, fire and life safety education, and fire investigation. This course meets the National Fire Academy, Fire and Emergency Services Higher Education (FESHE) curriculum model for Fire Prevention.

FT 302 Fire Protection Equipment and Systems

Units: 3
Hours: 54 hours LEC
Prerequisite: None.
Advisory: FT 300 with a grade of "C" or better
Transferable: CSU
Catalog Date: January 1, 2022

This course provides information relating to the features of design and operation of fire detection and fire alarm systems, heat and smoke control systems, water-based fire suppression systems, special hazard fire suppression systems, fire protection and sprinkler systems, water supply for fire protection, as well as portable fire extinguishers. This course meets the National Fire Academy, Fire and Emergency Services Higher Education (FESHE) curriculum model for Fire Protection Systems.

FT 303 Building Construction for Fire Protection

Units: 3
Hours: 54 hours LEC
Prerequisite: None.
Advisory: FT 300 with a grade of "C" or better
Transferable: CSU
Catalog Date: January 1, 2022

This course is the study of the components of building construction that relate to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, pre-planning fire operations and operating at fires and other emergencies. The development and evolution of building and fire codes will be studied in relationship to past fires in residential, commercial and industrial occupancies. This course meets the National Fire Academy, Fire and Emergency Services Higher Education (FESHE) curriculum model for Building Construction for Fire Prevention.

FT 304 Fire Behavior and Combustion

Units: 3
This course provides the student with theories and fundamentals of how and why fires start, spread and are controlled; an in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents and fire control techniques. This course meets the National Fire Academy, Fire and Emergency Services Higher Education (FESHE) curriculum model for Fire Behavior and Combustion.

FT 305 Firefighter Safety and Survival

Units: 3
Hours: 54 hours LEC
Prerequisite: None.
Advisory: FT 300
Transferable: CSU
Catalog Date: January 1, 2022

The course introduces the principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral changes throughout the emergency services profession. Emphasis is placed on occupational health and safety of firefighters as well as their personal and organizational accountability. Topics include safety, risk management, medical and fitness standards, industry standards relating to vehicle operation and road scene safety as well as firefighter fatality case studies and analysis. The course emphasizes best safety practices before, during, and after the emergency incident. This course meets the National Fire Academy, Fire and Emergency Services Higher Education (FESHE) curriculum model for Principles of Fire and Emergency Services Safety and Survival.

FT 320 Hazardous Materials

Units: 3
Hours: 54 hours LEC
Prerequisite: None.
Advisory: FT 300, 301, 302, 303, and 304
Transferable: CSU
Catalog Date: January 1, 2022

This course provides a study of the fire fighting practices related to hazardous chemicals, including their physical properties, uses in industry, and characteristics when involved in spills, fires, and accidents. Basic information regarding health effects and treatment, and fire department protocols and responsibilities.

FT 495 Independent Studies in Fire Technology

Units: 1 - 3
Hours: 54 - 162 hours LAB
Prerequisite: None.
Transferable: CSU
Catalog Date: January 1, 2022

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of "Special Studies" for full details of Independent Studies.

FT 498 Work Experience in Fire Technology

Units: 0.5 - 4
Hours: 30 - 300 hours LAB
Prerequisite: None.
Corequisite: FT 210 and 211
Enrollment Limitation: Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Fire Technology.
Transferable: CSU
General Education: AA/AS Area III(b)
Catalog Date: January 1, 2022

This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 37.5 hours of related paid work experience, or 30 hours of unpaid work experience for 0.5 unit. An additional 37.5 or 30 hours of related work experience is required for each additional 0.5 units. Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

FT 499 Experimental Offering in Fire Technology

Units: 0.5 - 4
Prerequisite: None.
Transferable: CSU
Catalog Date: January 1, 2022

This is the experimental courses description.

Firefighting Training Center (FIRE) Courses
FIRE 1130 Company Officer 2A (Human Resource Management for Company Officers)

Units: 1.75
Hours: 33 hours LEC; 7 hours LAB
Prerequisite: Meet the educational requirements for Office of the State Fire Marshal (OSFM) Fire Fighter II. The rank of Officer waives this prerequisite. The CAL FIRE rank of Fire Apparatus Engineer is equivalent to Officer level. Performing in an “acting” capacity does not qualify for this waiver.
Catalog Date: January 1, 2022

This course provides information on the use of human resources to accomplish assignments, evaluate member performance, supervise personnel, and integrate health and safety plans, policies, and procedures into daily activities as well as the emergency scene. Topics include human resource management, and health and safety. This course is offered as a Pass/No Pass course only.

FIRE 1131 Company Officer 2B (General Administration Functions for Company Officers)

Units: 0.75
Hours: 15 hours LEC; 5 hours LAB
Prerequisite: Meet the educational requirements for Office of the State Fire Marshal (OSFM) Fire Fighter II. The rank of Officer waives this prerequisite. The CAL FIRE rank of Fire Apparatus Engineer is equivalent to Officer level. Performing in an “acting” capacity does not qualify for this waiver.
Catalog Date: January 1, 2022

This course provides information on general administrative functions and the implementation of department policies and procedures, and addresses conveying the fire department’s role, image, and mission to the public. Topics include administration, and community and government relations. Pass/No Pass only.

FIRE 1132 Company Officer 2C (Fire Inspections and Investigation for Company Officers)

Units: 1.75
Hours: 33 hours LEC; 7 hours LAB
Prerequisite: Meet the educational requirements for Office of the State Fire Marshal (OSFM) Fire Fighter II. The rank of Officer waives this prerequisite. The CAL FIRE rank of Fire Apparatus Engineer is equivalent to Officer level. Performing in an “acting” capacity does not qualify for this waiver.
Catalog Date: January 1, 2022

This course provides information on conducting inspections, identifying hazards and addressing violations, performing a fire investigation to determine preliminary cause, and securing the incident scene and preserving evidence. Topics include orientation, fire and life safety inspections, and fire investigation. Pass/No Pass only.

FIRE 1133 Company Officer 2D (All-Risk Operations for Company Officers)

Units: 1.25
Hours: 20 hours LEC; 20 hours LAB
Prerequisite: Meet the educational requirements for Office of the State Fire Marshal (OSFM) Fire Fighter II. The rank of Officer waives this prerequisite. The CAL FIRE rank of Fire Apparatus Engineer is equivalent to Officer level. Performing in an “acting” capacity does not qualify for this waiver.
Enrollment Limitation: Completion of Incident Command System (I-200), which is an online course offered by Federal Emergency Management Agency (FEMA).
Catalog Date: January 1, 2022

This course provides information on conducting incident size-up, developing and implementing an initial plan of action involving single and multiunit operations for various types of emergency incidents to mitigate the situation following agency safety procedures, conducting preincident planning, and develop and conduct a post-incident analysis. Topics include initial Incident Action Plan (IAP), postincident analysis, operational planning, and service demands. Pass/No Pass only.

FIRE 1134 Company Officer 2E (Wildland Incident Operations for Company Officers)

Units: 1.75
Hours: 28 hours LEC; 12 hours LAB
Prerequisite: Meet the educational requirements for Office of the State Fire Marshal (OSFM) Fire Fighter II. The rank of Officer waives this prerequisite. The CAL FIRE rank of Fire Apparatus Engineer is equivalent to Officer level. Performing in an “acting” capacity does not qualify for this waiver.
Catalog Date: January 1, 2022

This course provides information on evaluating and reporting incident conditions, analyzing incident needs, developing and implementing a plan of action to deploy incident resources completing all operations to suppress a wildland fire, establishing an incident command post, creating and incident action plan, and completing incident records and reports. Topics include report on conditions, ongoing incident conditions, establishing an incident command post, deploying resources, incident needs, suppression operations, personnel needs and issues, and incident records and reports. Pass/No Pass only.

FIRE 1140 Chief Fire Officer 3A: Human Resources Management

Units: 1
Hours: 16.25 hours LEC; 9.75 hours LAB
Prerequisite: Meet the educational requirements for Company Officer, or seeking Fire Marshal Certification or four (4) years as a career fire fighter, or six (6) years as a volunteer fire fighter.
Enrollment Limitation: Meet the educational requirements for Company Officer.
This course provides students with a basic knowledge of the human resources requirements related to the roles and responsibilities of a chief fire officer. Topics include developing plans for providing employee accommodation, developing hiring procedures, establishing personnel assignments, describing methods of facilitating and encouraging professional development, developing an ongoing education training program, developing promotion procedures, developing proposals for improving employee benefits, and developing a measurable accident and injury prevention program. Pass/No Pass only.

FIRE 1141 Chief Fire Officer 3B: Budget and Fiscal Responsibilities

Units: 0.5
Hours: 9.5 hours LEC; 8.5 hours LAB
Prerequisite: Meet the educational requirements for Company Officer or five (5) years as a career officer (Lieutenant or higher), or seven (7) years as a volunteer officer (Lieutenant or higher) or five (5) years as a CAL FIRE Fire Apparatus Engineer.
Enrollment Limitation: Meet the educational requirements for Company Officer.
Catalog Date: January 1, 2022

This course provides students with a basic knowledge of the budgeting requirements related to the roles and responsibilities of a Chief Fire Officer. Topics include developing a budget management system, developing a division or departmental budget, and describing the process for ensuring competitive bidding. Pass/No Pass only.

FIRE 1142 Chief Fire Officer 3C: General Administration Functions for Chief Fire Officers

Units: 0.75
Hours: 14 hours LEC; 10 hours LAB
Prerequisite: Meet the educational requirements for Company Officer or five (5) years as a career officer (Lieutenant or higher), or seven (7) years as a volunteer officer (Lieutenant or higher) or five (5) years as a CAL FIRE Fire Apparatus Engineer.
Enrollment Limitation: Meet the educational requirements for Company Officer.
Catalog Date: January 1, 2022

This course provides a basic knowledge of the administration requirements related to the roles and responsibilities of a Chief Fire Officer. Topics include directing a department records management system, analyzing and interpreting records and data, developing a model plan for continuous organizational improvement, developing a plan to facilitate approval, preparing community awareness programs, and evaluating the inspection program of the Agency Having Jurisdiction (AHJ). Pass/No Pass only.

FIRE 1144 Chief Fire Officer 3D: Command of Expanding All-Hazard Incidents

Units: 1.25
Hours: 18 hours LEC; 20 hours LAB
Prerequisite: Meet the educational requirements for Company Officer.
Enrollment Limitation: Meet the educational requirements for Company Officer.
Catalog Date: January 1, 2022

This course provides a basic knowledge of the administration requirements related to the roles and responsibilities of a Chief Fire Officer. Topics include developing an agency resource contingency plan, analyzing incident facilities, supervising multiple resources, developing and utilizing an incident action plan, obtaining incident information to facilitate transfer of command, developing and conducting a post-incident analysis, and maintaining incident records. Pass/No Pass only.

FIRE 1520 Fire Apparatus Driver/Operator 1A - Pumping Apparatus

Units: 1.25
Hours: 19.5 hours LEC; 20.5 hours LAB
Prerequisite: Valid Class C California Driver's License.
Enrollment Limitation: None.
Catalog Date: January 1, 2022

This course provides information on fire apparatus preventive maintenance and driving/operating. Topics include routine tests, inspections, and servicing functions, operate, reverse, maneuver, and turn a fire apparatus in a variety of conditions, and operate all fixed systems and equipment on a fire apparatus. This course is based on the latest edition of NFPA 1002 Standard for Fire Apparatus Driver/Operator Professional Qualifications. This course fulfills the requirements for a Class C Firefighter Endorsement. Pass/No Pass only.

FIRE 1521 Fire Apparatus Driver/Operator 1B - Pumping Apparatus Operations

Units: 1.25
Hours: 18 hours LEC; 22 hours LAB
Prerequisite: Valid Class C California Driver's License (minimum).
Enrollment Limitation: Hold a valid Class C Firefighter Endorsed driver's license.
Catalog Date: January 1, 2022

This course provides information on pumping apparatus preventive maintenance and operations. Topics include routine tests, inspections, and servicing functions, producing hand, master, and foam fire streams, relay pump operations, and supplying water to fire sprinkler and standpipe systems. Pass/No Pass only.

FIRE 1800 Firefighter Training (S-130)
This course provides new firefighters with basic wildland firefighting skills. It also provides the knowledge needed to identify basic weather conditions, topography, fuels, and their effect on fire behavior. This course aligns with the National Wildfire Coordinating Group (NWCG) Incident Position Description (IPDs) that serve as the single authoritative source for the essential duties and responsibilities of a NWCG incident position. Pass/No Pass only.

FIRE 1807 Advanced Firefighter Training (S-131)

This course provides advanced training in wildland firefighting skills with an emphasis on safety and tactics. This is suggested training for firefighters who wish to become qualified at first level supervisory positions. This course also meets the training requirements for Advanced Firefighter/Squad Boss and Incident Commander Type 5. Pass/No Pass only.

FIRE 1809 Wildland Fire Chain Saws (S-212)

This course is designed for prospective chainsaw operators. Topics include introduction to the function, maintenance and use of internal combustion engine powered chain saws, tactical wildland fire applications, and training for firefighters with little or no previous experience in operating a chain saw, providing hands-on cutting experience in surroundings similar to fireline situations. Pass/No pass only.

FIRE 1861 Behavioral Health and Cancer Awareness 1A

This course provides awareness-level information on behavioral health and cancer for front-line responders, including describing stress and listing stressors; identifying and describing the impacts of stress; describing factors and demonstrating practices for resilience; describing types, prevalence, and causes of cancer; describing exposure to carcinogenic chemicals; and describing and demonstrating minimizing exposure and risk to cancerous contaminants. Pass/No pass only.

FIRE 1862 Behavioral Health and Cancer Awareness 2A

This course provides leadership-level information on and best practices for cancer awareness, including communicating risk about and minimizing and mitigating toxic exposure and risk; creating a supportive environment, overcoming barriers, and effecting change; and laws, regulations, standards and policies. This course also provides leadership-level information on and best practices for behavioral health, including stressors on members and leaders; stress impacts; overcoming barriers to behavioral health and resiliency, creating a supportive environment, member engagement, and effecting change; support resources and how to access them; and documentation types and requirements. Pass/No pass only.

FIRE 1863 Behavioral Health and Cancer Awareness 3A

This course provides organizational/leadership-level information on the science of cancer, the budgetary and policy impacts, implementing policies and procedures and overcoming challenges to mitigation and minimization of toxic exposure, and developing a cancer-prevention program. It also provides information on the prevalence of behavioral-health issues and the impacts of prevention, implementing policies and procedures and overcoming challenges to increase wellness, and developing a behavioral health and wellness program. Pass/No pass only.