

# 190 Fire Technology

## Definition

This program is designed to prepare students to work as firefighters and to provide an opportunity for those now working in this field to upgrade their skills.

## Staff

To access faculty and staff, dial (661) 722-6300, then the 4-digit extension.

### Program Advisement:

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### Administrative Assistant:

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### Faculty:

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### Adjunct Faculty:

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## Program Description

This program is made up of courses conforming to the recommended Uniform Fire Technology Curriculum of the California Community College System. Upon completion of the UFTC, professional firefighters should plan to enroll in appropriate programs at Regional Training Centers sponsored by the California Fire Academy System.

Fire Technology courses are offered in the evening to allow working persons easy access to instruction. Classes are updated by the local advisory group to maintain relevancy and meet changing industry needs.

Students must receive a minimum grade of "C" or better in all required core

courses and the specific courses listed as program electives in order to qualify for the degree or certificate.

## Distinctive Features

Field trips, demonstrations, and other innovative methods of instruction are utilized in the program.

## Career Options

Engineer  
 Firefighter  
 Fire Protection Services  
 Forestry Technicians  
 Hazardous Materials  
 Health and Safety Inspector  
 Industrial Safety  
 Industrial Fire Brigade  
 Law Enforcement  
 Plant Protection  
 Security Guard

## Certificate Programs

### Fire Technology

The following courses (24 units minimum) are required for the certificate.

Required Courses:	units
FTEC 111, Fire Protection Organization	3
FTEC 112, Fire Prevention Tech.	3
FTEC 113, Fire Protection Equip. and Systems	3
FTEC 114, Building Construction for Fire Protection	3
FTEC 115, Fire Behavior and Combustion	3
Program Electives	9
<b>Total</b>	<b>24</b>

For a recommended plan of study for the certificate, please refer to the Associate Degree plan minus the general education requirements.

Program Electives:	units
EMT 101, Emergency Medical Technician 1	5.5
FTEC 102, Basic Incident Command System	1
FTEC 117, Preparing to be a Firefighter	3
FTEC 120, Wildfire Power Saws	2
FTEC 122, Wildland Firefighter	4

FTEC 123, First Responder EMS	2
FTEC 125, Haz Mat First Responder Operations	1.5
FTEC 126, Wildland Fire Behavior	3
FTEC 127, Wildland Firefighter Safety and Survival	3
FTEC 128, Wildland Fire Operations	3
FTEC 129, Wildland Public Info. Officer, Prevention, and Investigation	3
FTEC 130, Wildland Fire Logistics, Finance and Planning	3
FTEC 131, Followership to Leadership	1
FTEC 132, Advanced Firefighter Training	.5
FTEC 137, Portable Pumps and Water Use	1
FTEC 138, Wildland Engine Firefighter	4
FTEC 149, Interagency Incident Business Management	.5
FTEC 150, Basic Air Operations	.5
FTEC 199, Occupational Work Experience	1-8
FTEC 215, Rescue Practices	3
FTEC 216, Engine Company Operations	3
FTEC 217, Truck Company Operations	3
FTEC 222, Wildland Fire Control	3
FTEC 240, Fuel Management and Fire Use	1.5
FTEC 250, Intermediate Incident Command System	1.5
GEOG 201, Map Interpretation and GPS	4

## Firefighter 1 Academy

The Firefighter 1 Academy is intended to provide students the necessary skills and knowledge to complete training for California State Fire Marshall Firefighter 1 certification. Emphasis is placed on knowledge and skills development in classroom and drill ground settings.

Students desiring to enter the Academy are required to have completed a medical examination and Candidate Physical Ability Test (CPAT). In addition to the enrollment fee, students are required to buy books, materials, uniforms, and protective equipment. The cost for these items is approximately \$2000. Informational meetings are scheduled at various times prior to registration for an

Academy to give prospective students information on the requirements of the program.

**Career Options**

- Municipal fire service (Cities and Counties)
- Private Fire Protection Agencies
- Federal Fire Departments
- Military Base Fire Departments

<b>Required Courses:</b>	<b>units</b>
The following courses (19.5 units) are required for the certificate.	
FTEC 295A, Firefighter I Academy Module A	8
FTEC 295AL, Firefighter I Academy Module A Lab	2
FTEC 295B, Firefighter 1 Academy Module B	7
FTEC 295BL, Firefighter 1 Academy Module B Lab	2.5
<b>Total</b>	<b>19.5</b>

**Low-Unit Certificate of Achievement**

**Wildland Fire Technology**

The Wildland Fire Technology program is designed to give students the necessary skills and knowledge in wildland fire management to obtain entry-level employment as a firefighter. Emphasis is placed on the use of tools and equipment, fire behavior, fire organization, basic EMS, hazardous materials, and the use of aircraft. Students will receive certificates for courses recognized as National Wildfire Coordinating Group curriculum in addition to the program certificate of completion.

**Career Options**

- Type II Hand Crewmember
- Hot Shot Crewmember
- Engine Crewmember
- Fire Prevention Technician
- Heli-Tack Crewmember

<b>Required Courses:</b>	<b>units</b>
The following courses (17.5 units) are required for the certificate.	
FTEC 102, (I-200) Basic Incident Command System	1
FTEC 120, (S-212) Wildfire Power Saws	2

FTEC 122, Wildland Firefighter	4
FTEC 125, Haz Mat First Responder Operations	1.5
FTEC 126, Wildland Fire Behavior	3
FTEC 137, (S-211) Portable Pumps and Water Use	1
FTEC 138, Wildland Firefighter Engine	4
FTEC 149, (S-260) Interagency Incident Business Management	.5
FTEC 150, (S-270) Basic Air Operations	.5
<b>Total</b>	<b>17.5</b>

**National Wildfire Coordinating Group / Wildland Fire Fighter Academy**

The Wildland Fire Fighter Academy program is designed to give students the basic necessary skills and knowledge in wildland fire fighting to obtain an entry-level temporary position as a wildland firefighter. Emphasis is placed on the field use of tools and equipment, physical training, as well as classroom academics. **The academy is a cohort of courses which are offered only during summer session. Admission is based on an interview with the Fire Technology instructors.** After successful completion of the cohort, a certificate will be awarded by the National Wildfire Coordinating Group.

**Career Options**

- Type II Hand Crewmember
- Hot Shot Crewmember
- Engine Crewmember

<b>Required Courses:</b>	<b>units</b>
The following courses (12.5 units) are required for the certificate.	
FTEC 120, Wildfire Power Saws	2
FTEC 122, Wildland Firefighter	4
FTEC 131, Followership to Leadership	1
FTEC 132, Advanced Firefighter Training	.5
FTEC 137, Portable Pumps and Water Use	1
FTEC 138, Wildland Engine Firefighter	.4
<b>Total</b>	<b>12.5</b>

**Associate Degree**

**Fire Technology**

The requirements for an associate degree in Fire Technology may be satisfied by completing 15 units of required courses, selecting an additional 9 units from the restricted list of program electives, 21 units of general education requirements, and sufficient elective credits to total 60 units. (See Graduation/Associate Degree Requirements.)

Students who complete the associate degree have enhanced employability in the field of fire fighting. They are well prepared full-time, permanent positions rather than temporary, on-call positions. Additionally, they have enhanced for promotional opportunities into supervisory and management positions as they gain experience with various agencies. The associate degree will also provide students with a broad range of knowledge with which to evaluate and appreciate the physical environment, the culture, and the society in which they live and with the ability to think and communicate clearly and effectively.

Except in cases of a prerequisite requirement, it is not required to take courses in exactly this sequence; they are recommended in this order to facilitate success.

<b>Recommended Plan of Study</b>	
<b>First Semester</b>	<b>units</b>
FTEC 111, Fire Protection Organization	3
FTEC 112, Fire Prevention Tech.	3
FTEC 113, Fire Protection Equipment and Systems	3
Course from GE requirement Area A	3
Course from GE requirement Area D1	3
<b>Total</b>	<b>15</b>
<b>Second Semester</b>	<b>units</b>
FTEC 114, Building Construction for Fire Protection	3
FTEC 115, Fire Behavior and Combustion	3
Course from GE requirement Area B	3
Course from GE requirement Area D2	3
Program Elective	3
<b>Total</b>	<b>15</b>

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<b>Third Semester</b>	<b>units</b>
Course from GE requirement Area E	3
Course from GE requirement Area F	3
Program Electives	6
Elective	<u>3</u>
<b>Total</b>	<b>15</b>

<b>Fourth Semester</b>	<b>units</b>
Course from GE requirement Area C	3
Electives	<u>12</u>
<b>Total</b>	<b>15</b>

**Degree Total 60**

### Program Electives:

Please refer to the Program Electives listed under the certificate program.

### Wildland Fire Technology

The requirements for an associate degree in Wildland Fire Technology may be satisfied by completing the 15 units of required courses, selecting an additional 15 units from the restricted list of program electives, 21 units of units of General Education requirements, and sufficient electives to total 60 units. (See Graduation/Associate Degree Requirements.)

Students who complete the associate degree have enhanced employability in the field of wildland fire fighting. They are well prepared full-time, permanent positions rather than temporary, on-call positions. Additionally, they have enhanced for promotional opportunities into supervisory and management positions as they gain experience with various agencies. The associate degree will also provide students with a broad range of knowledge with which to evaluate and appreciate the physical environment, the culture, and the society in which they live and with the ability to think and communicate clearly and effectively.

<b>Required Courses:</b>	<b>units</b>
FTEC 126, Wildland Fire Behavior	3
FTEC 127, Wildland Firefighter Safety and Survival	3
FTEC 128, Wildland Fire Operations	3
FTEC 129, Wildland Public Information Office, Prevention, and Investigation	3
FTEC 130, Wildland Fire Logistics, Finance and Planning	3

Program Electives	<u>15</u>
<b>Total</b>	<b>30</b>

### Program Electives: units

Select 15 units from the list below.	
EMT 101, Emergency Medical Technician (EMT)	5.5
FTEC 102, Basic Incident Command System	1
FTEC 120, Wildfire Power Saws	2
FTEC 122, Wildland Firefighter	4
FTEC 123, First Responder EMS	2
FTEC 125, Haz Mat First Responder Operations	1.5
FTEC 131, Followership to Leadership	1
FTEC 132, Advanced Firefighter Training	.5
FTEC 137, Portable Pumps and Water Use	1
FTEC 138, Wildland Engine Firefighter	4
FTEC 139, Wildland Fire Dispatcher	3
FTEC 141, Ignition Operations	1
FTEC 142, Wildland Origin and Cause Determination	1.5
FTEC 144, Single Resource Crew Boss	1.5
FTEC 149, Interagency Incident Business Management	.5
FTEC 150, Basic Air Operations	.5
FTEC 222, Wildland Fire Control	3
FTEC 240, Fuel Management and Fire Use	1.5
FTEC 250, Intermediate Incident Command System	1.5
GEOG 201, Map Interpretation and GPS	4
GEOG 205, Intro. to Geographic Information Systems	3

Except in cases of a prerequisite requirement, it is not required to take courses in exactly this sequence; they are recommended in this order to facilitate success.

### Recommended Plan of Study

<b>First Semester</b>	<b>units</b>
FTEC 126, Wildland Fire Behavior	3
FTEC 127, Wildland Firefighter Safety and Survival	3
Course from GE requirement Area A	3
Course from GE requirement Area D1	3
Program Elective	<u>3</u>
<b>Total</b>	<b>15</b>

<b>Second Semester</b>	<b>units</b>
FTEC 128, Wildland Fire Operations	3
FTEC 129, Wildland Public Information Officer, Prevention and Investigation	3
Course from GE requirement Area B	3
Course from GE requirement Area D2	3
Program Elective	<u>3</u>
<b>Total</b>	<b>15</b>

<b>Third Semester</b>	<b>units</b>
FTEC 130, Wildland Fire Logistics, Finance and Planning	3
Course from GE requirement Area E	3
Course from GE requirement Area F	3
Program Electives	<u>6</u>
<b>Total</b>	<b>15</b>

<b>Fourth Semester</b>	<b>units</b>
Course from GE requirement Area C	3
Program Electives	3
Electives	<u>9</u>
<b>Total</b>	<b>15</b>

**Degree Total 60**

### Transfer

A bachelor's degree in Fire Protection Administration is available at CSU, Los Angeles. Check the CSU, Los Angeles catalog and consult a counselor for transfer requirements.

### Prerequisite Completion

If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade in order to enroll in the next course. According to Title 5, Section 55200(d), a satisfactory grade is a grade of "A," "B," "C" or "P". Classes in which the Pass/No Pass option is available are indicated with an asterisk (\*) before the course title. See "Pass/No Pass Option" in the catalog for full explanation.

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## Fire Technology Courses

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### **FTEC 102 \*(I-200) BASIC INCIDENT COMMAND SYSTEM**

1 unit

16 hours total

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

This course is the first in the Incident Command System series and is a prerequisite for the next level class. Teaches the basic features of the Incident Command System. Topics include: orientation, principles and features, organization, incident facilities, incident resources, and common responsibilities. Intended for students to pursue a career in the fire service. (CSU, AVC)

### **FTEC 111 \*FIRE PROTECTION ORGANIZATION**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

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 the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. (AVC)

### **FTEC 112 \*FIRE PREVENTION TECHNOLOGY**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Designed for the new student. The course 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. (AVC)

### **FTEC 113 \*FIRE PROTECTION EQUIPMENT AND SYSTEMS**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

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. (AVC)

### **FTEC 114 \*BUILDING CONSTRUCTION FOR FIRE PROTECTION**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

The study of the components of building construction that relate 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. (AVC)

### **FTEC 115 \*FIRE BEHAVIOR AND COMBUSTION**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Theory 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. (AVC)

### **FTEC 117 \*PREPARING TO BE A FIREFIGHTER**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Provides knowledge and skills needed to successfully complete the fire department employment process. Course includes what firefighters do, how firefighters are selected, memory and observation, tool knowledge, shop arithmetic, mechanical insight, mechanical knowledge, hydraulic calculations using mathematic formulas, calculation of square footage, cubic footage, percent of slopes, interpretation of symbols, spatial relations, map reading, reading comprehension, vocabulary, tables, charts, graphs, physical ability testing, resume preparation, fire department applications, and oral interviewing. (CSU, AVC)

### **FTEC 120 \*(S-212) WILDFIRE POWER SAWS**

2 units

32 hours total

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Provides the knowledge needed to become a wildfire powersaw operator. Covers safety considerations, techniques of saw operation, maintenance and repairs. Wildfire power saws (S-212) is identified training in the National Wildfire Coordinating Group Suppression Curriculum. Intended for students to pursue a career with a wildland fire management agency or for a specialty with a municipal fire control agency. (CSU, AVC)

### **FTEC 122 \*WILDLAND FIREFIGHTER**

4 units

5 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Prepares the student for entry level employment on a wildland fire crew. Meets the basic requirements for the U.S. Forest Service firefighter qualification system. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty with a municipal

fire control agency. (CSU, AVC)  
**(R unlimited\*)**

\* Course repeatability allowed for mandated training as stated in Title 5, Sections 55763(c) and 58161(c).

## **FTEC 123 \*FIRST RESPONDER EMS**

2 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Intended for employees of wildland fire suppression agencies, law enforcement agencies, and other agencies that do not train to the Emergency Medical Technician level. Provides the first responder with skills to provide basic life support medical care until arrival of appropriate transportation and more qualified emergency medical personnel. Students planning for employment with municipal fire departments should take the Emergency Medical Technician course. This course is excellent preparation for the EMT course. (CSU, AVC)

## **FTEC 125 \*HAZ MAT FIRST RESPONDER OPERATIONS**

1.5 units

24 hours total

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Prepares the student to respond to hazardous materials incidents in a safe and competent manner at the operational level. Includes recognition and safety, containment and protective actions, scene management, legal aspects, and other information appropriate to this level of hazardous materials incident management. (CSU, AVC)

## **FTEC 126 \*WILDLAND FIRE BEHAVIOR**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

This course is intended for students that have completed a basic wildland firefighter training course and desires a greater understanding of wildland fire behavior. This provides information necessary for a greater understanding of

wildland fire behavior and fire behavior calculations. The effects of fuels, topography, and weather are discussed. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty within a municipal fire control agency. (CSU, AVC)

## **FTEC 127 \*WILDLAND FIREFIGHTER SAFETY AND SURVIVAL**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

This course is intended for student who are planning to pursue a career with a wildland fire. The course places emphasis on avoiding situations and conditions which have resulted in fire shelter deployments, injuries, fatalities for wildland firefighters and the methods to avoid this type of situation and to survive should they become entrapped. (CSU, AVC)

## **FTEC 128 \*WILDLAND FIRE OPERATIONS**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Presents the command structure and operational process for ground and air operations in control of wildland fires. Introduces the fire suppression oriented student to the needs and timing for logistical, finance and planning assistance on wildland fires. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty within a municipal fire control agency. (CSU, AVC)

## **FTEC 129 \*WILDLAND PUBLIC INFORMATION OFFICER, PREVENTION AND INVESTIGATION**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Presents information necessary to understand roles and functions of the Wildland Fire Information Officer,

Wildland Fire Prevention Officer, and Wildland Fire Investigation Officer. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty within a municipal fire control agency. (CSU, AVC)

## **FTEC 130 \*WILDLAND FIRE LOGISTICS, FINANCE AND PLANNING**

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Examines the roles, responsibilities, and functions of the planning, logistics, and finance sections that are utilized during the control of wildland fires. Intended for students who wish to pursue a career with a wildland fire suppression agency and for a specialty within a municipal fire department. (CSU, AVC)

## **FTEC 131 \*(L-280) FOLLOWERSHIP TO LEADERSHIP**

(formerly (S-201) Supervisory Concepts and Techniques)

1 unit

16 hours total

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Designed for the first level supervisor (single resource) position in the Incident Command System. Includes supervisor responsibilities, ethics, workforce diversity, communication, and other topics relative to the position. Meets basic requirements of the National Wildfire Coordinating Group. Intended for students to pursue a career with a wildland fire management agency or for a specialty with a municipal fire control agency. (CSU, AVC)

## **FTEC 132 \*(S-131) ADVANCED FIREFIGHTER TRAINING**

.5 unit

8 hours total

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Designed for students who have previous Wildland fire fighter training. Provides the information needed to become qualified in the first level supervision

position of Advanced Firefighter/Squad Boss. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty with a municipal fire agency. (CSU, AVC)

### **FTEC 137 \*(S-211) PORTABLE PUMPS AND WATER USE**

*1 unit*

*16 hours total*

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Teaches students knowledge of the use and field maintenance of portable pumps and related equipment needed to carry out field operations. Portable Pumps and Water Use is identified training in the Wildland Fire Qualification Subsystem of the National Interagency Incident Management System (NIIMS). Intended for students to pursue a career with a wildland fire suppression agency or for a specialty with a municipal fire control agency. (CSU, AVC)

### **FTEC 138 \*WILDLAND ENGINE FIREFIGHTER**

*4 units*

*5 hours weekly*

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

This course prepares the student for employment on a wildland fire engine. Includes engine operations, hose lays, and related skills. Intended for students to pursue a career with a wildland fire management agency or for a specialty with a municipal fire control agency. This course IS NOT intended to cover the Basic Wildland Firefighter skills training. (CSU, AVC)

### **FTEC 139 WILDLAND FIRE DISPATCHER**

*3 units*

*3 hours weekly*

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Designed to give students the necessary skills to perform entry-level tasks within an all risk emergency dispatch system. Coursework includes (D-105) Entry Level Dispatcher, (D-110) Dispatch Recorder, and (D-310) Dispatch Supporter. Subjects covered include:

communications, logs and filing, maps, resource status, dis-patching aircraft, processing weather, first response/initial attack dispatching, support for initial attack, expanded dispatch, demobilization, accident/incident reporting, public information, resource order and process, forms and associated processes and intelligence processing. Utilizes National Wildfire Coordinating Group curriculum. However, the course is applicable to dispatching within any system. (CSU, AVC)

### **FTEC 141 \*(S-234) IGNITION OPERATIONS**

*1 unit*

*24 hours total*

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

A course designed to train firefighters who will have a need to know about firing techniques and the related firing devices used in wildfire suppression. Course material is taken from National Wildfire Coordinating Group courses. Course is designed for students seeking a career in wildland fire management or for a specialty with a municipal fire department that has a wildland urban interface problem. (AVC)

### **FTEC 142 \*(P-151) WILDFIRE ORIGIN AND CAUSE DETERMINATION**

*1.5 units*

*27 hours total*

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Provides information to enable the student to make investigations of wildland fires to determine point of origin, cause of fires, and to initiate investigation of possible arson fires. Instruction in burn patterns and other indicators. Includes protection of evidence and use of evidence kit. Recognition of devices, arson motives, photography, and sketching are covered. Student learns case preparation including: review of the legal system, first approach, interviewing, interrogations, report writing, case files, and court demeanor. Relationship of investigation to litigation and other outcomes such as burdens of proof and standards of admissibility. The course utilizes the material contained

in the National Wildfire Coordinating Group curriculum for FI-110 Wildland Fire Observation and Origin Scene Protection For First Responders and FI-210 Wildland Fire Origin and Cause Determination. (AVC)

### **FTEC 144 \*(S-230) SINGLE RESOURCE CREW BOSS**

*1.5 units*

*32 hours total*

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Designed to provide firefighters with knowledge to lead others while performing a variety of tasks used in suppression of wildland fires. Course material is taken from the National Wildfire Coordinating Group course, S-230 Crew Boss (Single Resource). Intended for students seeking a career in wildland fire management or for a specialty with a municipal fire department that has a wildland urban interface responsibility. (CSU, AVC)

### **FTEC 149 \*(S-260) INTERAGENCY INCIDENT BUSINESS MANAGEMENT**

*.5 unit*

*16 hours total*

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Designed to provide knowledge to perform the tasks of the positions in the Incident Command System (ICS) for which basic incident business management is required. Provides policy and direction for incident business management. Intended for students to pursue a career with a wildland fire suppression agency or for a specialty with a municipal fire control agency. (CSU, AVC)

### **FTEC 150 \*(S-270) BASIC AIR OPERATIONS**

*.5 unit*

*16 hours total*

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Provides a survey of uses of aircraft in fire suppression and provides instruction on how to conduct oneself in and around aircraft. Meets the curriculum requirements of the National

Wildfire Coordinating Group. Intended for students to pursue a career with a wildland fire management agency or for a specialty with a municipal fire control agency. (AVC)

## **FTEC 199 \*OCCUPATIONAL WORK EXPERIENCE**

1–8 units  
hours vary

**Prerequisite:** To participate in work experience, students must have a job or internship which is either paid or voluntary and have the approval of the supervisor and instructor supervising work experience in the specific subject area. PRIOR TO ENROLLING, students must attend a scheduled orientation or meet individually with the supervising instructor for an individual orientation.

Occupational Work Experience Education is supervised employment designed to provide students a realistic learning experience through work. The ultimate goal is to teach students those skills and attitudes that will equip them to function and adapt as an employee in a variety of situations and jobs. Occupational Work Experience Education is supervised employment extending classroom-based occupational learning at an on-the-job learning station related to the students' educational major or occupational goal. Credit may be accrued at the rate of one to eight units per semester. For the satisfactory completion of all types of Cooperative Work Experience Education (WE 197 and WE 199), students may earn up to a total of sixteen semester credit hours. (CSU, AVC) (R3)

## **FTEC 215 \*RESCUE PRACTICES**

3 units  
3 hours weekly

**Prerequisite:** Completion of or concurrent enrollment in FTEC 111.

General and specific rescue applications ranging in complexity from simple to extremely complex. Includes rescue scene management, rescue vehicle and equipment, rope rescue, structural collapse rescue, elevator rescue, confined space rescue, water and ice rescue, trench rescue, and other special rescue situations. (AVC)

## **FTEC 216 \*ENGINE COMPANY OPERATIONS**

3 units  
3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Designed to provide knowledge to perform the tasks of an engine company firefighter. Covers various methods of attack, hoselays, supply lines, apparatus positioning, water supply, exposure protection, tactical use of fixed protective systems, heavy stream appliances, overhaul, tactical operations and rescue. (CSU, AVC)

## **FTEC 217 \*TRUCK COMPANY OPERATIONS**

3 units  
3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Designed to provide knowledge to perform the tasks of a truck company firefighter. Covers various initial assignments, rescue guidelines, ventilation practices, methods of checking for fire extension, forcible entry, aerial operations, ground ladders, salvage, elevated streams, control of utilities and overhaul. (CSU, AVC)

## **FTEC 222 \*WILDLAND FIRE CONTROL**

3 units  
3 hours weekly

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

This course provides the student with the skills and knowledge to size up a wildland /urban interface fire incident, evaluate the potential situation, order and deploy the necessary resources, and apply safe and effective strategy and tactics to minimize the threat to life and loss of property. (AVC)

## **FTEC 240 \*FUEL MANAGEMENT AND FIRE USE**

1.5 units  
24 hours total

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Provides the student with an introductory

level of knowledge to understand fire ecology, environmental policy, data collection for fuels inventory and fuel treatment processes and methods as they relate to fuel management and fire use in the western United States. Meets basic requirements of the National Wildfire Coordinating Group. Intended for students to pursue a career with a wildland fire management agency or for a specialty with a municipal fire control agency. (CSU, AVC)

## **FTEC 250 \*(I-300) INTERMEDIATE INCIDENT COMMAND SYSTEM**

1.5 units  
24 hours total

**Prerequisite:** Completion of FTEC 102 or FTEC 295A.

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Provides description and detail of the organization and operation of the ICS, management of resources, duties of all positions including the Air Operations organization, and examples of how the essential principles are used in incident and event planning. Meets the curriculum requirements of the National Wildfire Coordinating Group. Applicable to wildland fire management agencies and municipal fire departments. (CSU, AVC)

## **FTEC 295A \*FIREFIGHTER 1 ACADEMY MODULE A**

8 units  
140 hours total

**Limitation on Enrollment:** Requires physical exertion, lifting of 40 or more pounds, ability to climb ladders, walk in irregular terrain and pass Candidate Physical Agility Test (CPAT).

**Corequisite:** Concurrent enrollment in FTEC 295AL.

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Combined with FTEC 295B provides the student with the knowledge to meet California State Fire Training requirements for a Firefighter 1 Academy. This coursework is the first step toward Firefighter 1 Certification. Combines classroom coursework with hands on training. Coursework includes, but is not limited to: history and development of

the fire service, organization command and control, communications and alarms, fire behavior, firefighter safety, personal protective equipment, self-contained breathing apparatus, portable fire extinguishers, water supply, fire hose and appliances, nozzles and fire streams, and protective systems. Students may have to purchase additional supplies not provided by the college. (CSU, AVC)

### **FTEC 295AL \*FIREFIGHTER 1 ACADEMY MODULE A LAB**

2 units

125 hours total

**Limitation on Enrollment:** Requires physical exertion, lifting of 40 or more pounds, ability to climb ladders, walk in irregular terrain, and pass Candidate Physical Agility Test (CPAT).

**Corequisite:** Concurrent enrollment in FTEC 295A.

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Laboratory course designed to accompany FTEC 295A lecture. Students may have to purchase additional supplies not provided by the college. (CSU, AVC)

### **FTEC 295B \*FIREFIGHTER 1 ACADEMY MODULE B**

7 units

128 hours total

**Limitation on Enrollment:** Requires physical exertion, lifting of 40 or more pounds, ability to climb ladders, walk in irregular terrain, and pass Candidate Physical Agility Test (CPAT).

**Prerequisite:** Completion of FTEC 295A and FTEC 295AL.

**Corequisite:** Concurrent enrollment in FTEC 295BL.

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Combined with FTEC 295A provides the student with the knowledge to meet California State Fire Training requirements for a Firefighter 1 Academy. This course is the second step toward Firefighter 1 Certification. Combines classroom coursework with hands on training. Coursework includes, but is not limited to: building construction, ladders, ropes and knots, rescue procedures, forcible entry, ventilation, fire suppression, salvage, fire cause determination, fire prevention, first aid, hazardous materials, and terrorism awareness. Students may have to purchase additional supplies not provided by the college. (CSU, AVC)

### **FTEC 295BL \*FIREFIGHTER 1 ACADEMY MODULE B LAB**

2.5 units

135 hours total

**Limitation on Enrollment:** Requires physical exertion, lifting of 40 or more pounds, ability to climb ladders, walk in irregular terrain, and pass Candidate Physical Agility Test (CPAT).

**Prerequisite:** Completion of FTEC 295A and FTEC 295AL.

**Corequisite:** Concurrent enrollment in FTEC 295B.

**Advisory:** Eligibility for ENGL 099, READ 099 and MATH 070.

Laboratory course designed to accompany FTEC 295B lecture. Students may have to purchase additional supplies not provided by the college. (CSU, AVC)