

# FIRE TECHNOLOGY

Fire protection is a highly specialized professional field requiring extensive knowledge and use of scientific principles. Successful application of the fundamental principles of fire protection, including suppression and extinguishment of fires, rescue, emergency medical services, prevention techniques and practices, preplanning for fire protection, and disaster control, requires technical knowledge and the ability to work within an organized system at the fire ground or other emergency scene. These actions require trained, professional people to accomplish the goals and objectives of today's public and/or private organizations in meeting their commitment to the public and employees they serve. Fire Technology provides the student the opportunity to prepare for a rewarding career in the public fire service or in private industry.

The Fire Technology program provides vocational and technical in-service training for interested students. Each student who completes a program of courses that meets the specified requirements is entitled to a certificate of completion in that field. Certificates are awarded as evidence that well defined levels of proficiency have been attained and they are recognized as such by employers.

In order to be awarded the certificate, the student must have completed the prescribed program with at least a 2.0 grade point average in the prescribed course work. The number of courses prescribed for each certificate varies according to the area of training.

For the most current information about VVC's Fire Technology programs, application deadlines, costs, and other requirements, please visit the Fire Technology Department ([http://www.vvc.edu/academic/fire\\_technology/](http://www.vvc.edu/academic/fire_technology/)) website.

## Career Opportunities

Apparatus Operator, Disaster Preparedness, Fire Administrative Analyst, Fire Chief, Fire Division Chief, Fire Fighter I, Fire Officer I, Fire Prevention Specialist, Fire Protection Engineer, Industrial Fire Safety Specialist

## Faculty

Valdez, Robert

## Transfer

Not usually a transfer major. Some Fire Technology courses do transfer as electives or fulfill subject credit requirements, California State University, Los Angeles offers a Fire Protection Administration and Technology, BS degree which requires a minimum of 18 major units to be completed in Fire Technology at a community college. Cal Poly San Luis Obispo and Humboldt State University offer bachelor's degrees in Forestry with concentrations in Fire Management. Visit [assist.org](http://assist.org) (<http://www.assist.org>) for community college courses which will transfer as requirements toward these bachelor's degrees. Students planning to pursue this bachelor's degree should also complete the CSU General Education-Breadth Requirements before transfer, if possible.

## Fire Technology, AS

**State Control Number:** 10809

**Program Code:** FT.AS

**Approved for Federal Financial Aid:** Yes

The Fire Technology major requires 18 units from any of the certificates or from Fire Technology coursework (numbered 50 and above). FIRE 138 Coop Ed Fire Technology may be used as elective credit, but may not be used to fulfill major requirements.

Business Administration is also a highly recommended bachelor's degree major for people in this field who are seeking advancement. See Business Administration for degree and transfer requirements.

To earn this degree, complete the major coursework with "C" grades or better and all of the following graduation requirements: 60 minimum degree-applicable units (including a maximum 4 units of activity); 2.0 minimum overall GPA; 12 degree-applicable units through VVC; Information Competency; Global Citizenship; Kinesiology, and the VVC General Education pattern (<https://catalog.vvc.edu/degrees-certificates/vvcge/#vvcge>). Courses may count in one area only, either in the major or in a general education category. Courses counted in one AA/AS major may not be used in another AA/AS major.

## Urban Search and Technical Rescue, AS

**State Control Number:** 40071

**Program Code:** USTS.AS

**Approved for Federal Financial Aid:** Yes

This degree is awarded to students upon successful completion of the course work required to function in a leadership role as a member of an Urban Search and Rescue Team or Regional Task Force.

To earn this degree, complete the major coursework listed here with "C" grades or better and all of the following graduation requirements: 60 minimum degree-applicable units (including a maximum 4 units of activity); 2.0 minimum overall GPA; 12 degree-applicable units through VVC; Information Competency; Global Citizenship; Kinesiology, and the VVC General Education pattern (<https://catalog.vvc.edu/degrees-certificates/vvcge/#vvcge>). Courses may count in one area only, either in the major or in a general education category. Courses counted in one AA/AS major may not be used in another AA/AS major.

Code	Title	Units
FIRE 51A	Firefighter/EMT Public Safety Vertical Integration	4.5
FIRE 61A	Rescue Systems I	1.5
FIRE 61B	Confined Space Rescue Awareness	0.5
FIRE 61D	Confined Space Rescue Technician	1.5
FIRE 61E	Firefighter Survival and Rapid Intervention Crew Operations	1.5
FIRE 61H	Low Angle Rope Rescue Operational	0.5
FIRE 61J	Rescue Systems 2	1.5
FIRE 61K	Rescue Systems 3: Structure Collapse Technician	0.5
FIRE 61L	Rope Rescue Technician	1.0
FIRE 66	Basic Incident Command	1.0
FIRE 67	Trench Rescue	0.5
FIRE 82A	Hazardous Materials First Responder Operational	1.5
FIRE 82C	First Responder Operational Weapons of Mass Destruction	0.5
FIRE 86	Intermediate Incident Command	1.5
<b>Total Units</b>		<b>18</b>

## Fire Fighter Academy

Victor Valley College's Fire Technology Department is an accredited Regional Training Program (ARTP) as designated by the Office of the California State Fire Marshal (CSFM). As an ARTP, the VVC Fire Technology Department is authorized to deliver a CSFM Accredited Firefighter I Academy and a full suite of CSFM courses leading to advanced levels of certification. In addition, the VVC Fire Technology Department is authorized by CSFM to deliver Fire Fighter I certification examinations in support of CSFM's accreditation by the International Fire Service Accreditation Congress (IFSAC) and the National Board of Fire Service Professional Qualifications (Pro Board).

Students must complete all required prerequisites before applying to the academy. Entrance into the academy is done by application completion and in the order they are received. Consideration is given to those who have their EMS license/certificate over those who have just completed the class. Visit the VVC Fire Technology ([http://www.vvc.edu/academic/fire\\_technology/ffi.shtml/](http://www.vvc.edu/academic/fire_technology/ffi.shtml/)) website for details.

Code	Title	Units
<b>Required Prerequisites before entering the Fire Fighter Academy</b>		
EMS 60	Emergency Medical Technician	9.5
FIRE 61B	Confined Space Rescue Awareness	0.5
FIRE 66	Basic Incident Command	1.0
FIRE 82A	Hazardous Materials First Responder Operational	1.5
<b>Total Units</b>		<b>12.5</b>

Once students are admitted into the Fire Academy, they will enroll in FIRE 95 Basic Fire Academy which is 13.5 unit course. In addition to this course there is required coursework that is embedded into the Fire Academy. The following courses will be taken during the same semester as FIRE 95.

Code	Title	Units
FIRE 140A	Firefighter Physical Agility Entrance Exam Techniques	2.5
FIRE 61E	Firefighter Survival and Rapid Intervention Crew Operations	1.5
FIRE 61H	Low Angle Rope Rescue Operational	0.5
FIRE 63A	Auto Extrication	0.5
FIRE 82C	First Responder Operational Weapons of Mass Destruction	0.5
FIRE 82D	Hazardous Materials First Responder Operational Decontamination	0.5
FIRE 95	Basic Fire Academy	13.5
<b>Total Units</b>		<b>19.5</b>

## Introduction to Firefighting Certificate of Achievement

**State Control Number:** 38576  
**Program Code:** INTROFF.CERT  
**Approved for Federal Financial Aid:** No

This certificate is awarded to those students that successfully complete the Basic Firefighter Training in Fire 95 with at least a 2.0 grade point average.

Code	Title	Units
<b>Required Courses</b>		
FIRE 95	Basic Fire Academy	13.5
<b>Total Units</b>		<b>13.5</b>

## Basic Firefighter Certificate of Achievement

**State Control Number:** 38575  
**Program Code:** BFF.CERT  
**Approved for Federal Financial Aid:** No

This certificate of achievement recognizes graduates of the Firefighter I Academy who have completed the curriculum and the Firefighter I and Hazardous Materials Certification Testing required by the State Fire Marshal.

Code	Title	Units
<b>Required Courses</b>		
FIRE 82A	Hazardous Materials First Responder Operational	1.5
FIRE 95	Basic Fire Academy	13.5
<b>Total Units</b>		<b>15</b>

## Intermediate Firefighter Certificate of Achievement

**State Control Number:** 38569  
**Program Code:** IFF.CERT  
**Approved for Federal Financial Aid:** Pending (<https://catalog.vvc.edu/student-resources/financing-education/#Pending-FedAid>)

This certificate of achievement recognizes those students that have completed Firefighter I Training including at course work in Hazardous Materials, Basic Incident Command, and Confined Space Awareness at the Awareness Level.

Code	Title	Units
<b>Required Courses</b>		
FIRE 61B	Confined Space Rescue Awareness	0.5
FIRE 66	Basic Incident Command	1.0
FIRE 82A	Hazardous Materials First Responder Operational	1.5
FIRE 95	Basic Fire Academy	13.5
<b>Total Units</b>		<b>16.5</b>

## Fire Fighter Certificate of Achievement

**State Control Number:** 04969  
**Program Code:** FF.CERT  
**Approved for Federal Financial Aid:** Yes

Awarded to the student who successfully completes the following course of study to meet the minimum qualifications and competencies as required by National Fire Protection Association and California State Fire Marshal's Fire Fighter I certification program.

Code	Title	Units
<b>Required Courses</b>		
Complete all of the following with a C or better		
EMS 60	Emergency Medical Technician	9.5

Code	Title	Units
FIRE 53A	Fire Apparatus Driver/Operator 1A: Emergency Vehicle Operations	1.5
FIRE 61B	Confined Space Rescue Awareness	0.5
FIRE 61E	Firefighter Survival and Rapid Intervention Crew Operations	1.5
FIRE 61H	Low Angle Rope Rescue Operational	0.5
FIRE 66	Basic Incident Command	1.0
FIRE 82A	Hazardous Materials First Responder Operational	1.5
FIRE 82C	First Responder Operational Weapons of Mass Destruction	0.5
FIRE 95	Basic Fire Academy	13.5
FIRE 140A	Firefighter Physical Agility Entrance Exam Techniques	2.5
<b>Total Units</b>		<b>32.5</b>

## IFSAC/Pro-Board Firefighter I Certificate of Achievement

**State Control Number:** 38848

**Program Code:** IFSAC.CERT

**Approved for Federal Financial Aid:** Pending (<https://catalog.vvc.edu/student-resources/financing-education/#Pending-FedAid>)

This certificate is to recognize those students that have met the requirements for IFSAC and Pro-Board Firefighter I Certification.

Code	Title	Units
<b>Required Courses</b>		
FIRE 61B	Confined Space Rescue Awareness	0.5
FIRE 61E	Firefighter Survival and Rapid Intervention Crew Operations	1.5
FIRE 66	Basic Incident Command	1.0
FIRE 82A	Hazardous Materials First Responder Operational	1.5
FIRE 82C	First Responder Operational Weapons of Mass Destruction	0.5
FIRE 82D	Hazardous Materials First Responder Operational Decontamination	0.5
FIRE 95	Basic Fire Academy	13.5
<b>Total Units</b>		<b>19</b>

## All Risk Firefighter Certificate of Achievement

**State Control Number:** 38570

**Program Code:** ARFF.CERT

**Approved for Federal Financial Aid:** Pending (<https://catalog.vvc.edu/student-resources/financing-education/#Pending-FedAid>)

This certificate of achievement recognizes those students that have completed the educational requirements for Firefighter I and the requirements to perform Vehicle Extrication and Low Angle Rope Rescue Operational.

Code	Title	Units
<b>Required Courses</b>		
FIRE 61B	Confined Space Rescue Awareness	0.5

Code	Title	Units
FIRE 61E	Firefighter Survival and Rapid Intervention Crew Operations	1.5
FIRE 61H	Low Angle Rope Rescue Operational	0.5
FIRE 63A	Auto Extrication	0.5
FIRE 66	Basic Incident Command	1.0
FIRE 82A	Hazardous Materials First Responder Operational	1.5
FIRE 82C	First Responder Operational Weapons of Mass Destruction	0.5
FIRE 82D	Hazardous Materials First Responder Operational Decontamination	0.5
FIRE 95	Basic Fire Academy	13.5
<b>Total Units</b>		<b>20</b>

## Wildland Firefighter Certificate of Achievement

**State Control Number:** 38577

**Program Code:** WLFF.CERT

**Approved for Federal Financial Aid:** No

This certificate of achievement is awarded to those students that complete the course work making them eligible for employment as a firefighter with the Federal Fire Agencies and CalFire.

Code	Title	Units
<b>Required Courses</b>		
FIRE 59	Basic Wildland Fire Academy	2.5
FIRE 59B	CalFire Basic Wildland Academy	2.5
FIRE 61B	Confined Space Rescue Awareness	0.5
FIRE 61E	Firefighter Survival and Rapid Intervention Crew Operations	1.5
FIRE 66	Basic Incident Command	1.0
FIRE 82A	Hazardous Materials First Responder Operational	1.5
<b>Total Units</b>		<b>9.5</b>

## Fire Technology Courses

### FIRE 2A Public Safety Orientation Exam Techniques (0.5 Units)

This course is designed to provide the entry level public safety candidate the knowledge required to function in the fire academy. Firefighter Etiquette is the focus of this course. This course will not apply to the Associate Degree. Pass/No pass.

Lab Hours: 27.0

Transfer: Not transferable

### FIRE 10 Fire Fighter Skills Maintenance (4-9 Units)

A series of lectures and manipulative drills designed to provide maintenance of skills learned, including updates in technology relating to fire department organization, hose, ladders, tools and equipment, salvage, fire chemistry, extinguishers, and emergency response techniques. Students must be employed by a Fire Department or gaining work experience toward California Firefighter I Certification. This course will not apply to the Associate Degree. This course is repeatable.

Lecture Hours: 18.0; Lab Hours: 162.0

Transfer: Not transferable

**FIRE 10C Company Officer's Skill Maintenance (1.5 Units)**

This course provides the fire fighter company officer student with new information and skill development to maintain efficiency and effectiveness as a company officer and fire fighter. New policies and procedures are presented. Student demonstrates proficiency in using tools, tactics and strategies in managing personnel, budgets, etc. This course will not apply to the Associate Degree. Pass/No Pass.

Lecture Hours: 18.0; Lab Hours: 27.0

Transfer: Not transferable

**FIRE 40 Fire Fighter Entrance Exam Techniques (0.5 Units)**

This course is designed to prepare the student to take and successfully pass the entrance level fire fighter examination process. Topics discussed include: seeking employment opportunities, the application process, the various examinations given to applicants, oral interviews, and other aspects of the examination process. This course will not apply to the Associate Degree. Grade option.

Lecture Hours: 9.0

Transfer: Not transferable

**FIRE 51A Firefighter/EMT Public Safety Vertical Integration (4.5 Units)**

This course is the field externship portion of the Firefighter I Academy. Students will spend lab hours in the field with an all-risk fire department performing the duties of a Firefighter/EMT.

Recommended Preparation: FIRE 95

Lecture Hours: 9.0; Lab Hours: 216.0

Transfer: Not transferable

**FIRE 51F Fire Control 3B (0.5 Units)**

This course is designed to develop fundamental skills in combating structure fires by providing the students with a thorough understanding of fire behavior, ventilation procedures and techniques, interior fire attack, and exterior fire attack using a live-fire simulator. In many cases, this will be the fire fighter's first exposure to live structural fire fighting.

Lab Hours: 27.0

Transfer: Not transferable

**FIRE 51G Fire Control 4 (0.5 Units)**

This course provides the knowledge and skills that prepare a firefighter to extinguish an ignitable liquid fire, control a flammable gas fire, and develop an incident action plan for a pipeline emergency. (Formerly FIRE 9A)

Lab Hours: 27.0

Transfer: Not transferable

**FIRE 51T Firefighter I Certification Testing (1.0 Units)**

This course provides the State Fire Marshal Certification Skills testing and Firefighter I knowledge test required for Firefighter I Certification or Firefighter Reciprocity Testing.

Lab Hours: 54.0

Transfer: Not transferable

**FIRE 53A Fire Apparatus Driver/Operator 1A: Emergency Vehicle Operations (1.5 Units)**

This course provides the student with information on driver responsibilities, recognized standards, and related laws for fire apparatus. Topics include basic inspections, documentation, maintenance, and troubleshooting fire apparatus, and techniques on driving and positioning fire apparatus. Each student also has the opportunity to increase his or her driving skills during simulated driving conditions. Designed for fire service emergency response personnel.

Lecture Hours: 18.0; Lab Hours: 27.0

Transfer: Not transferable

**FIRE 53B Fire Apparatus Driver/Operator 1B: Pump Operations (1.5 Units)**

Designed for fire service emergency response personnel. This course provides the student with information on pump construction and theory of pump operations. Topics include: methods for performing basic hydraulics and techniques on basic inspections, documentation, maintenance, and troubleshooting fire pumps. Each student also has the opportunity to increase his or her pumping skills during simulated pumping conditions. Pass/No Pass.

Recommended Preparation: FIRE 95

Lecture Hours: 18.0; Lab Hours: 27.0

Transfer: Not transferable

**FIRE 54A Truck Academy (2.0 Units)**

This course is for veteran firefighters or other interested students that want to enhance their knowledge and ability as it pertains to the fire ground operations associated with truck company tactics and strategy. Basic roof construction, vertical and horizontal ventilation, forcible entry, positive and negative ventilation, search and rescue, thermal imaging technology, firefighter safety and survival, rapid intervention tactics, elevator rescue and related truck company operations will be discussed. Pass/No Pass.

Lab Hours: 108.0

Transfer: Not transferable

**FIRE 59 Basic Wildland Fire Academy (2.5 Units)**

This course presents information and skill development to students seeking employment and a career with a wildland fire agency. This course provides 80 hours of wildland firefighter training. Upon completion, students will receive National Wildland Coordinating Group (NWC) certification in I-100, S-110, S-130, S-190 and L-180. Students must have a good attitude and a willingness to work hard.

Recommended Preparation: FIRE 82A, FIRE 11B, FIRE 66, EMS 50, or FEMA-EMI Online-IS-100, ICS 100, an introduction to the incident command system certification, FEMA-EMI Online - IS-700, NIMS National Response Plan certification

Lecture Hours: 9.0; Lab Hours: 108.0

Transfer: Not transferable

**FIRE 59B CalFire Basic Wildland Academy (2.5 Units)**

Provides a basic firefighter course oriented toward the equipment utilized on CDF engines. Fundamentals of wildland fire control and techniques of controlling other emergency incidents are covered with a strong safety perspective. The course is structured with a maximum emphasis on demonstration, student application and performance examinations.

New protocols, procedures and equipment are presented and student demonstrates proficiency in using tools, tactics and strategies for fire control.

Prerequisite(s): FIRE 59, Minimum grade C

Lecture Hours: 9.0; Lab Hours: 108.0

Transfer: Not transferable

**FIRE 61A Rescue Systems I (1.5 Units)**

The 40 hour State Fire Rescue Systems I course is designed to provide the student with the ability to apply basic search and rescue skills under the California Urban Search and Rescue Operational levels.

Students learn to approach rescue situations safely and understand the organizational concerns at an All-Risk technical rescue incident. Upon completion of the course, the student will receive a California State Fire Marshals Certificate which is the foundation requirement for other urban search and rescue classes. Pass/No Pass.

Lecture Hours: 18.0; Lab Hours: 27.0

Transfer: Not transferable

**FIRE 61AA Rope Rescue Awareness/Operations (1.5 Units)**

The 40-hour Rope Rescue Awareness/Operations course is designed to provide the student with the ability to apply basic search and rescue skills under the California Urban Search and Rescue Operational levels. Students learn to approach rescue situations safely and understand the organizational concerns at an All-Risk technical rescue incident. Upon completion of the course, the student will receive a California State Fire Marshals Certificate which is the foundation requirement for other urban search and rescue classes. Pass/No Pass.

Lecture Hours: 18.0; Lab Hours: 27.0

Transfer: Not transferable

**FIRE 61B Confined Space Rescue Awareness (0.5 Units)**

Designed for all fire service personnel. This course provides instruction in identifying a permit and nonpermit required confined space, the hazards associated with confined spaces, target industries and hazards, state regulations, communications, and equipment requirements. This course does not qualify participants to make permit required entries. OSFM-SFT certification. Material and FSTEP Certification fee. Pass/No Pass.

Lecture Hours: 9.0

Transfer: Not transferable

**FIRE 61D Confined Space Rescue Technician (1.5 Units)**

This course is designed for personnel who in the discharge of rescue duties find themselves working in "immediately dangerous to life and health environments." This is the 40 hr. California State Fire Marshal course required for USAR Team members. (Formerly FIRE 11D.) Pass/No Pass.

Recommended Preparation: FIRE 95

Lecture Hours: 18.0; Lab Hours: 27.0

Transfer: Not transferable

**FIRE 61E Firefighter Survival and Rapid Intervention Crew Operations (1.5 Units)**

The first part of this course was developed in the continuing effort to reduce the number of fire fighter injuries and fatalities that occur on an annual basis and provides a greater understanding how to avoid committing fatal errors on the fireground. Avoiding situations that could cause you to become lost, trapped, or injured is the best way to prevent tragedies at a fire scene. Topics include fire fighter survival terminology, developing a survival attitude, increasing situational awareness, and being trained in problem-solving techniques so you can become more self-reliant in an emergency. Case studies will be reviewed to outline factors common in many line-of-duty deaths (LODDs) Across the nation the Rapid Intervention Crew Operations course trains fire fighters to rescue a downed fire fighter in an immediately dangerous to life and health environment. In the continuing effort to reduce the number of fire fighter injuries and deaths that occur regularly, this course focuses on self survival and a survival attitude. Students train using evolutions and scenarios based off tragedies suffered by fellow fire fighters from departments across the country. Students receive information on how to locate and use these LODD studies as training and prevention tools throughout their careers. The second part of this course focuses on the three phases of a RIC operations: 1) pre-deployment, 2) deployment, and 3) rescue. During the class, you will also gain a greater understanding of RIC operations terminology and the RIC mindset.

Lecture Hours: 18.0; Lab Hours: 27.0

Transfer: Not transferable

**FIRE 61H Low Angle Rope Rescue Operational (0.5 Units)**

This course is designed to equip the student with the information, techniques and methods for utilizing rope, webbing, hardware friction devices and litters in low angle rescue situations. Topics include rope and related equipment, anchor systems, safety lines, stretcher lashing and rigging, mechanical advantage, single line and two line systems . This course is designed for the fire fighter student with essential fire fighting skills. Pass/No Pass.

Recommended Preparation: FIRE 95

Lab Hours: 27.0

Transfer: Not transferable

**FIRE 61J Rescue Systems 2 (1.5 Units)**

This course is designed for personnel who in the discharge of rescue duties will engage in missions that encompass numerous hazards such as those involving confined spaces, energized electrical services, hazardous materials, adverse weather, unstable structures, high technology rescue tools, emergency building shoring, breaking, breaching, burning and cutting, and lifting and moving heavy objects. Pass/No Pass.

Lecture Hours: 18.0; Lab Hours: 27.0

Transfer: Not transferable

**FIRE 61K Rescue Systems 3: Structure Collapse Technician (0.5 Units)**

Bridges the training gap between the California State Fire Training Rescue Systems 2 Advanced Rescue Skills course and the Federal Emergency Management Agency Structural Collapse Technician course. Key topics include: power actuated tools, pneumatic shores, additional tools and techniques for breaking and breaching, cutting a tensioned cable, the "O" course, rigging, and crane operations.

Lab Hours: 27.0

Transfer: Not transferable

**FIRE 61L Rope Rescue Technician (1.0 Units)**

This course will prepare participants to undergo competency testing for high angle rescue. The scope of the program is to familiarize participants with the high angle environment and experience; and for them to safely participate in the engineering and operation of simple to complex rescue systems.

Lab Hours: 54.0

Transfer: Not transferable

**FIRE 63A Auto Extrication (0.5 Units)**

Provides hands-on experience in the procedures and systems utilized during an automobile extrication. Subjects covered include: Auto Extrication, types of hand and power tools, removing windows, opening doors, removing windows, opening doors, removing roofs, pulling steering wheels, moving foot pedals, raising dashboards, pulling seats, stabilization of vehicles, and simulated rescues of trapped victims.

Lab Hours: 27.0

Transfer: Not transferable

**FIRE 66 Basic Incident Command (1.0 Units)**

This course is an overview of the Incident Command System. Designed for the emergency responder who responds to and operates within the Incident Command System (ICS). CSFM FSTEP Certification.

Recommended preparation: Federal Emergency Management Institute's ICS-100. Pass/No Pass.

Lecture Hours: 18.0

Transfer: Not transferable



**FIRE 67 Trench Rescue (0.5 Units)**

This three day (24 hour) course will take you from classroom discussion to working safely and efficiently in a trench rescue environment. This hands-on training program will cover topics that include: Trench and Excavation Regulations, Understanding Soil, Trench Configurations, Trench Hazards, Rescue Team Preparation, Incident Response, Initial On Scene and Pre-Entry Operations, Shoring Systems and Components, Installation of Shoring Systems, Victim Rescue and Recovery and Incident Termination

Prerequisite(s): FIRE 11A, Minimum grade C

Lab Hours: 27.0

Transfer: Not transferable

**FIRE 82 Hazardous Materials First Responder Awareness (0.5 Units)**

This course is designed to provide the student with information essential to those people who are likely to be first responders at hazardous materials incidents. Designed to meet federal and state requirements for awareness training for employees handling and using hazardous materials.

Lecture Hours: 9.0

Transfer: Not transferable

**FIRE 82A Hazardous Materials First Responder Operational (1.5 Units)**

This course provides the students with a fundamental knowledge of the factors affecting operating procedures at a Hazardous Material Incident. This course will improve the capabilities of the first responder to respond to a Haz Mat event in a safe and competent manner, within the typical resource and capability limits at the "operational" level. This course meets the First Responder Operational Haz Mat Emergency Response certified course requirements of California Code of Regulations (CCR) Title 19, Division 2, Chapter 1, Subchapter 2, Sections 2510-2560.

The course includes the CSTI Hazardous Materials First Responder Operational Certification as well as the State Fire Marshal Hazardous Materials Skills for Firefighter I. Pass/No Pass

Lecture Hours: 27.0

Transfer: Not transferable

**FIRE 82C First Responder Operational Weapons of Mass Destruction (0.5 Units)**

This course introduces the student to the basic concepts for first responder operational procedures at the scene of a potential or actual terrorist incident and discusses safety and survival tactics. Pass/No Pass. (Formerly FIRE 4B).

Prerequisite(s): FIRE 82A, Minimum grade of C, or CSTI Haz-Mat First Responder Operational Certification.

Lecture Hours: 9.0

Transfer: Not transferable

**FIRE 82D Hazardous Materials First Responder Operational Decontamination (0.5 Units)**

This course provides the student with the information and skills to safely and competently decontaminate people and equipment at a hazardous materials (hazmat) incident. California Specialized Training Institute (CSTI) certified. Meets federal and state requirements as listed in 29 CFR 1910.1209(q), CCR 5192(q), NFPA472 and includes the State Fire Marshal requirements for Firefighter I / Hazardous Materials Certification. Pass/No pass.

Prerequisite(s): FIRE 82A, Minimum grade C

Lecture Hours: 9.0

Transfer: Not transferable

**FIRE 86 Intermediate Incident Command (1.5 Units)**

This course expands upon information covered in ICS-100 and ICS-200 including unified command, incident/event assessment, objective development, planning, incident/event resource management, transfer of command and demobilization. Pass/No Pass.

Prerequisite(s): FIRE 66, Minimum grade C, or experience as a fire fighter using the ICS system.

Lecture Hours: 27.0

Transfer: Not transferable

**FIRE 95 Basic Fire Academy (13.5 Units)**

Basic Fire Academy provides basic training for individuals interested in becoming firefighter. Comprehensive introduction to basic firefighting characteristics and behavior of fire; practice in fundamental fire suppression activities with special attention to safety; practice in basic rescue techniques; study of public service principles and fire service etiquette. Students must attend a mandatory orientation.

Prerequisite(s): (EMS 60 or EMT Certification) and ( FIRE 61B, or CA State Fire Marshall Confined Space Awareness Certificate;) and (FIRE 66 or I200 Certificate) and (and FIRE 82A or CSTI Hazmat First Responder Operational Certificate, Minimum grade C)

Co-requisite(s): FIRE 61H, FIRE 82C, FIRE 82D, FIRE 61E, FIRE 63A, and FIRE 40A

Lecture Hours: 135.0; Lab Hours: 324.0

Transfer: Not transferable

**FIRE 100 Principles of Emergency Services (3.0 Units)**

This course provides an overview to: fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; 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; life safety initiatives.

Lecture Hours: 54.0

Transfer: Transfers to CSU only

**FIRE 101 Fire Service Operations (3.0 Units)**

Provides the student with the fundamentals of fire department organization, management, and resources, and emphasizes the use of those resources to control various emergencies.

Lecture Hours: 54.0

Transfer: Transfers to CSU only

**FIRE 102 Fire Prevention Technology (3.0 Units)**

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.

Lecture Hours: 54.0

Transfer: Transfers to CSU only

**FIRE 103 Fire Protection Systems (3.0 Units)**

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.

Recommended Preparation: FIRE 100

Lecture Hours: 54.0

Transfer: Transfers to CSU only

**FIRE 104 Fire Behavior and Combustion (3.0 Units)**

This course explores the theories and fundamentals of how and why fires start, spread, and are controlled.

Lecture Hours: 54.0

Transfer: Transfers to CSU only

**FIRE 105 Bldg Construction for Fire Protection (3.0 Units)**

This course provides the components of building construction that relate to fire and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. (Formerly FIRE 69).

Lecture Hours: 54.0

Transfer: Transfers to CSU only

**FIRE 107 Fire Investigation (3.0 Units)**

A study of the origin of any and all types of fires (accidental, incendiary, and suspicious); and law relating to fire investigation. Recognizing, collecting, and preserving evidence, interviewing witnesses and suspects, arrest and detention procedures, court procedures and giving a testimony.

Lecture Hours: 54.0

Transfer: Transfers to CSU only

**FIRE 109 Wildland Fire Control (3.0 Units)**

This course is designed to provide students with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques.

Lecture Hours: 54.0

Transfer: Transfers to CSU only

**FIRE 110 Principles of Fire and Emergency Services Safety and Survival (3.0 Units)**

This course introduces the basic principles and history related to the national firefighter life safety initiatives.

Lecture Hours: 54.0

Transfer: Transfers to CSU only

**FIRE 138 Coop Ed Fire Technology (1-8 Units)**

This course is designed for students who are cross-training at their current worksite for upward mobility or possible career changes, as well as those looking for entry-level occupational training through work-based learning experiences. Students must have a co-op approved worksite to enroll in this class and establish new learning objectives.

Transfer: Transfers to CSU only

**FIRE 140A Firefighter Physical Agility Entrance Exam Techniques (2.5 Units)**

This course is designed to prepare the student to take the entrance level firefighter physical agility examination through physical conditioning and specificity training. Students are shown varying entrance exam events often used in the physical agility portions and basic ergonomic techniques. General lecture on health and the importance of firefighter physical fitness. Emphasis on physical conditioning and exercise.

Co-requisite(s): FIRE 95

Lab Hours: 135.0

Transfer: Transfers to CSU only

## Program Learning Outcomes

Program Learning Outcomes (PLOs) are statements of the kind of learning a program hopes a student will achieve. The PLOs describe the knowledge, skills, problem-solving, communication and values that apply to all certificates and/or degrees within that program.

Upon completion of this program, students should be able to:

1. Demonstrate the ability to analyze, appraise and evaluate fire and emergency incidents and identify components of emergency management and fire fighter safety including: Size-up, report on condition, Incident Command System; RECEO; 10 Standard Firefighting Orders; and 18 Situations that "Shout Watch Out".
2. Analyze the causes of fire, determine extinguishing agents and methods, differentiate the stages of the fire and fire development, and compare methods of heat transfer.
3. Demonstrate knowledge and skills required to respond appropriately to fire and environmental emergency situations at the private, city, state and federal levels with emphasis in one or more of the following areas: wildland fire fighting; hazardous materials response; structural fire suppression, prevention, and investigation, disaster response, first responder; emergency medical technician; or leadership responsibilities.
4. Identify and comprehend laws, regulations, codes and standards that influence fire department operations, and identify regulatory and advisory organizations that create and mandate them, especially in the areas of fire prevention, building codes and ordinances, and firefighter health and safety.
5. Identify minimum qualifications and entry level skills for fire fighter hiring. The student will be able to describe the following elements: application process; written exam process; physical agility exam, oral interview, chief's interview; background investigation; and fire fighter probationary process.
6. Identify and describe common types of building construction and conditions associated with structural collapse and firefighter safety.
7. Apply knowledge and skills required to respond appropriately to fire and environmental emergency situations at the private, city, state and federal levels with emphasis in one or more of the following areas: wildland fire fighting; hazardous materials response; structural fire suppression, prevention, and investigation, disaster response, first responder; emergency medical services; or leadership responsibilities.
8. Describe the educational requirements, minimum qualifications, entry-level skills and ongoing certification requirements for firefighting positions, as well as the hiring process: application process; written exam process; physical agility exam, oral interview, chief's interview; background investigation; and firefighter probationary process.
9. Identify laws, regulations, codes and standards that influence fire department operations, as well as regulatory and advisory organizations that create and mandate them, especially in the areas of fire prevention, building codes and ordinances, and firefighter health and safety.
10. Apply industry fire and emergency safety protocols including: Size-up, report on condition, Incident Command System; 10 Standard Firefighting Orders; and 18 Situations that "Shout Watch Out."
11. Identify and apply principles of fire science and use of equipment for designated situations including: Wildland Fire Fighting; hazardous materials response; structural fire suppression, prevention, and investigation, disaster response, first responder; emergency medical technician; or leadership responsibilities.