

Transfer acceptability: CSU

Independent study for students who have demonstrated skills and/or proficiencies in Fashion subjects and have the initiative to work independently on projects or research outside the context of regularly scheduled classes. Students will work under the personal supervision of an instructor.

Filipino

See Tagalog

Fire Technology (FIRE)

Contact Public Safety Programs for further information, (760) 744-1150, ext. 1722

Associate in Arts degree requirements, Certificate of Achievement requirements, and Certificate of Proficiency requirements are listed in Section 6 (green pages) of the catalog.

PROGRAMS OF STUDY

Fire Technology - Emergency Management

Prepares student for career in Emergency Management.

**A.A. DEGREE MAJOR OR
CERTIFICATE OF ACHIEVEMENT**

Program Requirements		Units
FIRE 100	Fire Protection Organization	3
FIRE 115	Hazardous Materials I	3
FIRE 120	Building Construction for Fire Protection	3
FIRE 131	Emergency Preparedness	3
FIRE 132	Fundamentals of Emergency Management	3
FIRE 133	Disaster Mitigation	3
Electives (Select 12 units)		
FIRE 51	Fire Academy Preparation	2
FIRE 71	Trench Rescue	.5
FIRE 72	Swiftwater Rescue	.5
FIRE 98	Fire Service Skills	.5-5
FIRE 105	Fire Hydraulics	3
FIRE 118	Fire Prevention Technology	4
FIRE 125	Fire Apparatus and Equipment	3
FIRE 130	Fire Protection Equipment and Systems	3
FIRE 145	Fire Fighting Tactics and Strategy	3
FIRE 151	Fire Fighter I Academy	18
FIRE 152	Driver Operator Academy	4.5
FIRE 160	Wildland Fire Control I	3
FIRE 165	Fundamentals of Fire Protection Chemistry	3
FIRE 168	Volunteer Fire Fighter Academy	4
FIRE 175	Fire Command IA	2
FIRE 176	Fire Command IB	2
FIRE 180	Fire Prevention IA	2
FIRE 181	Fire Prevention IB	2
FIRE 185	Fire Management I	2
FIRE 190	Fire Investigation IA	2
FIRE 193	Fire Instructor IA	2
FIRE 194	Fire Instructor IB	2
FIRE 197A	Fire Technology General Topics	.5-5
FIRE 197B	Fire Technology Command Topics	.5-5
FIRE 197C	Fire Technology Field Topics	.5-5
TOTAL UNITS		30

Fire Technology - General

Prepares students for a career in fire suppression, fire prevention and/or fire protection.

The following courses may be substituted: CHEM 100 will substitute for FIRE 115; PHYS 102 or 120 or PHSC 100 will substitute for FIRE 165.

**A.A. DEGREE MAJOR OR
CERTIFICATE OF ACHIEVEMENT**

Program Requirements		Units
FIRE 100	Fire Protection Organization	3
FIRE 118	Fire Prevention Technology	4
FIRE 120	Building Construction for Fire Protection	3
FIRE 130	Fire Protection Equipment and Systems	3
FIRE 165 or	Fundamentals of Fire Protection Chemistry	3
PHYS 102 or	Introduction to Physics (Lecture)	3
PHYS 120 or	General Physics	4
PHSC 100	Introduction to Physical Science	3
Elective Courses (Select 15 units)		
FIRE 51	Fire Academy Preparation	2
FIRE 71	Trench Rescue	.5
FIRE 72	Swiftwater Rescue	.5
FIRE 98	Fire Service Skills	.5-5
FIRE 105	Fire Hydraulics	3
FIRE 115 or	Hazardous Materials I	3
CHEM 100	Fundamentals of Chemistry	4
FIRE 125	Fire Apparatus and Equipment	3
FIRE 131	Emergency Preparedness	3
FIRE 132	Fundamentals of Emergency Management	3
FIRE 133	Disaster Mitigation	3
FIRE 145	Fire Fighting Tactics and Strategy	3
FIRE 151	Fire Fighter I Academy	18
FIRE 152	Driver Operator Academy	4.5
FIRE 160	Wildland Fire Control I	3
FIRE 168	Volunteer Fire Fighter Academy	4
FIRE 175	Fire Command IA	2
FIRE 176	Fire Command IB	2
FIRE 180	Fire Prevention IA	2
FIRE 181	Fire Prevention IB	2
FIRE 185	Fire Management I	2
FIRE 190	Fire Investigation IA	2
FIRE 193	Fire Instructor IA	2
FIRE 194	Fire Instructor IB	2
FIRE 197A	Fire Technology General Topics	.5-5
FIRE 197B	Fire Technology Command Topics	.5-5
FIRE 197C	Fire Technology Field Topics	.5-5
EME 106	Emergency Medical Tech Basic (Lecture)	6
CE 100	Cooperative Education	1-4
TOTAL UNITS		31 - 32

COURSE OFFERINGS

Due to safety concerns, as well as minimum requirements by regulatory agencies, potential students should be aware that some courses may require participants to demonstrate physically demanding skills, along with both verbal and nonverbal communication skills.

Courses numbered under 100 are not intended for transfer credit.

FIRE 51 Fire Academy Preparation (2)
 4 hours lecture/laboratory
Note: May be taken 4 times
 This course prepares individuals for the demanding requirements of the Fire Academy. It will also prepare students for the Physical Ability test that is required to pass the North County Regional Fire Test. It breaks the test down into components, so that the student can more skillfully pass the exam. There will be time spent on application preparation and interview skills.

FIRE 71 Trench Rescue (.5)
 1½ hours laboratory
Note: Credit/No Credit grading only; may be taken 4 times
 Comprehensive instruction with extensive hands-on application of the techniques necessary to safely effect a rescue from an excavation or trenching cave-in. Topics include: critical considerations while responding to trenching emergencies; establishing and operating the Incident Command System; evaluation of cave-in scenes;

specialized tool usage; shoring techniques; below grade safety procedures; patient packaging; and patient removal techniques. Upon successful completion of the course, students will receive a California State Fire Marshal certificate.

FIRE 72 Swiftwater Rescue (.5)

1½ hours laboratory

Note: Credit/No Credit grading only; may be taken 4 times

This course is intended for the training of fire service personnel in water rescue techniques. Topics include: Swiftwater rescue, submerged vehicles, drownings, use of engine/truck company equipment for water rescue, use of rafts and boats, and underwater search and recovery. Upon completion of the course, students will receive a California State Fire Marshal certificate.

FIRE 98 Fire Service Skills (.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5)

1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 hours lecture/laboratory

Note: Credit/No Credit grading only; may be taken 4 times

This course covers fire service basic topics in the classroom for review and manipulative training for skills maintenance. All subjects will have to do with the duties and responsibilities of the fire services, in order to maintain a state of readiness.

FIRE 100 Fire Protection Organization (3)

3 hours lecture

Transfer acceptability: CSU

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.

FIRE 105 Fire Hydraulics (3)

3 hours lecture

Recommended preparation: FIRE 100 and MATH 60

Transfer acceptability: CSU

Review of basic mathematics; hydraulic laws and formulas as applied to the fire service; application of formulas and mental calculation to hydraulic problems; water supply problems; underwriter's requirements for pumps.

FIRE 115 Hazardous Materials I (3)

3 hours lecture

Transfer acceptability: CSU

A review of basic chemistry; storage, handling, laws, standards, and fire fighting practices pertaining to hazardous materials.

FIRE 118 Fire Prevention Technology (4)

4 hours lecture

Transfer acceptability: CSU

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 relationships of fire prevention with built-in fire protection systems, fire investigation and fire safety education. Provides skills necessary for California Fire Service Training and Education system, Certified Firefighter I and Fire Inspector I. Meets requirements for CFSTES Fire Prevention IA and IB classes. Contains knowledge required for State Fire Training, Firefighter I Certification.

FIRE 120 Building Construction for Fire Protection (3)

3 hours lecture

Transfer acceptability: CSU

The study of the components of building construction that relate to fire/life safety. The development and evolution of building and fire codes will be studied in relationship to past fires/collapses in residential, commercial, and industrial occupancies.

FIRE 125 Fire Apparatus and Equipment (3)

3 hours lecture

Transfer acceptability: CSU

Driving laws, driving technique, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, and apparatus maintenance.

FIRE 130 Fire Protection Equipment and Systems (3)

3 hours lecture

Transfer acceptability: CSU

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.

FIRE 131 Emergency Preparedness (3)

3 hours lecture

Prerequisite: FIRE 100

Emergency preparedness related to natural and man-made disasters. Planning concepts and the planning process; awareness and education programs and strategies for the fire student, business, and industry.

FIRE 132 Fundamentals of Emergency Management (3)

3 hours lecture

Prerequisite: FIRE 100

Emergency management systems related to career opportunities, tasks, function and responsibilities of the emergency management program director; the role in mitigation, preparedness, response and recovery. History of the civil defense department post World War II and the current emergency management system.

FIRE 133 Disaster Mitigation (3)

3 hours lecture

Prerequisite: FIRE 100

Knowledge and skills required to develop programs to reduce losses from future emergencies caused by natural and man-made disasters.

FIRE 145 Fire Fighting Tactics and Strategy (3)

3 hours lecture

Transfer acceptability: CSU

Review of fire chemistry, equipment, and manpower; basic fire fighting tactics and strategy; methods of attack; preplanning fire problems.

FIRE 151 Fire Fighter I Academy (18)

36 hours lecture/laboratory

Prerequisite: EME 106 or certification as an EMT I, and admission to the Fire Fighter I Academy program

Transfer acceptability: CSU

A 576 hour fire fighter academy course which will meet the requirements mandated by the California Office of State Fire Marshal for Certified Fire Fighter I training. Covers fire ground procedures, tactics, strategy, safety methods, fire dynamics, equipment usage and deployment, and subject material pertaining to the role of fire fighters within the fire service.

FIRE 152 Driver Operator Academy (4.5)

9 hours lecture/laboratory

Recommended preparation: FIRE 100 and 151

Transfer acceptability: CSU

Comprehensive instruction in all aspects of operating fire apparatus. This includes fire apparatus construction and maintenance; driving laws; safe driving practices; fire pump theory; fire pump service testing; hydraulic laws and formulas as applied to the fire service; developing effective fire streams; identification and use of the various hose, nozzles, and fittings used in the fire service; water supply; nationally recognized standards for fire apparatus and equipment.

FIRE 160 Wildland Fire Control I (3)

3 hours lecture

Transfer acceptability: CSU

Provides employed firefighters or fire service majors with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques.

FIRE 165 Fundamentals of Fire Protection Chemistry (3)

3 hours lecture

Recommended preparation: FIRE 100**Transfer acceptability:** CSU

Provides the student with fundamental information and knowledge of the physical and chemical characteristics of matter, fire, hazardous materials, and basic extinguishment theory.

FIRE 168 Volunteer Fire Fighter Academy (4)

8½ hours lecture/laboratory

Transfer acceptability: CSU

Basic fire fighting skills needed to begin a career in the fire service. Meets State Fire Marshal requirements.

FIRE 175 Fire Command IA (2)

2 hours lecture

Transfer acceptability: CSU

Course provides instruction and simulation time to the participants while engaged in the initial decision and action processes at a working fire. The course includes discussion regarding the fire officer, fire behavior, fireground resources, operations, and management.

FIRE 176 Fire Command IB (2)

2 hours lecture

Transfer acceptability: CSU

A descriptive analysis in tactics and strategies and scene management principles for incidents involving hazardous materials. Emphasizes identification and hazard mitigation, decontamination, protective clothing, environmental concerns, and legal issues.

FIRE 180 Fire Prevention IA (2)

2 hours lecture

Transfer acceptability: CSU

Includes general fire inspection practices and responsibilities of fire prevention personnel. Essential equipment of code enforcement and procedures for correcting fire hazards. Fire extinguishers, fixed systems, and determination of operational readiness of these systems.

FIRE 181 Fire Prevention IB (2)

2 hours lecture

Transfer acceptability: CSU

Includes the relationship of life safety codes and requirements to building construction principles and building occupancy classifications. The engineering solutions to various hazards, enforcing the solution, and public relations as affected by fire prevention in handling complaints.

FIRE 185 Fire Management I (2)

2 hours lecture

Transfer acceptability: CSU

Supervision and management, leadership styles and techniques, development of policies and procedures, time management, stress management, and personnel appraisal and counseling guidelines.

FIRE 190 Fire Investigation IA (2)

2 hours lecture

Transfer acceptability: CSU

Fire behavior and building construction, investigative techniques required for incendiary, accidental, fatal, vehicle, wildland, and juvenile fire investigations; procedures to collect and preserve physical evidence, and investigative report writing.

FIRE 193 Fire Instructor IA (2)

2 hours lecture

Transfer acceptability: CSU

Standard State Board of Fire Services accredited course offered in community colleges. Basic information includes: occupational analysis, course outlines, concepts of learning, levels of instruction, behavioral objectives, using lesson plans, psychology of learning, and evaluation of effectiveness. Activities include student teaching demonstrations.

FIRE 194 Fire Instructor IB (2)

2 hours lecture

Transfer acceptability: CSU

Standard State Board of Fire Services accredited course offered in community colleges. Advanced topics include: preparing course outlines, establishing levels of instruction, constructing behavioral objectives and lesson plans, instructional aid development, fundamentals of testing and measurements, tests planning, evaluation techniques and tools. Activities include student teaching demonstrations.

FIRE 197A Fire Technology General Topics (.5-5)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times**Transfer acceptability:** CSU

Topics in Fire technology General. See Class Schedule for specific topic offered. Course title will designate subject covered.

FIRE 197B Fire Technology Command Topics (.5-5)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times**Transfer acceptability:** CSU

Topics in Fire Technology Command. See Class Schedule for specific topic offered. Course title will designate subject covered.

FIRE 197C Fire Technology Field Topics (.5-5)

Units awarded in topics courses are dependent upon the number of hours required of the student. Any combination of lecture, laboratory, or lecture/laboratory may be scheduled by the department. Refer to Class Schedule.

Note: May be taken 4 times**Transfer acceptability:** CSU

Topics in Fire Technology Field. See Class Schedule for specific topic offered. Course title will designate subject covered.

Foreign Languages (FL)

See Arabic, Chinese, French, German, Italian, Japanese, Spanish, and Tagalog.

Contact the Foreign Languages Department for further information, (760) 744-1150, ext. 2390

COURSE OFFERINGS**FL 141 Elementary Luiseño IA (3)**

3 hours lecture

Note: FL 141+142 correspond to one year of high school foreign language**Note:** Cross listed as AIS 141**Transfer acceptability:** CSU; UC

An introduction to the fundamentals of the Luiseño language, one of the four indigenous languages of San Diego County. This course will include a survey of Luiseño language phonology, morphology, syntax and grammar with special emphasis on culturally relevant terminology.

FL 142 Elementary Luiseño IB (3)

3 hour lecture

Note: FL 141+142 correspond to one year of high school foreign language**Note:** Cross listed as AIS 142**Transfer acceptability:** CSU; UC

Review of the phonology, morphology, syntax and grammar of the Luiseño language, with continued emphasis on culturally relevant terminology leading to increased proficiency in expressing basic concepts both orally and in writing.

FL 143 Elementary Luiseño IIA (3)

3 hours lecture

Note: FL 143 + 144 correspond to two years of high school foreign language.**Note:** Cross listed as AIS 143**Transfer acceptability:** CSU; UC

Elementary grammar, review, composition, and continued oral practice.