

ASSOCIATE OF SCIENCE IN FIRE TECHNOLOGY (AS)

Credit Status:

Credit

Program Award:

Associate of Science

Effective Term:

Fall 2025

Program Title

Associate of Science in Fire Technology (AS)

Program Goal:

CTE

Secondary Program Goal

Local

Catalog Description:

This degree prepares students for entry-level employment and/or potential further study in the fields of fire protection and prevention. Students completing this degree will have a foundation for the fields of fire protection, prevention, or public education through the study of the organization and function of fire prevention and suppression techniques, fire behavior, combustible materials, extinguishing agents, hazardous and toxic material, fire command and fire management. The student will acquire knowledge in the design and operation of fire detection and alarm systems; fire protection features in building design and construction, wildland fire behavior and firefighting techniques; fire service organization, fire prevention, and theories of fire control. The Fire Technology program is based on the Uniform Fire Service Technology curriculum as approved by the State Board of Fire Services and the California Fire Chiefs Association and the National Fire Protection Association.

Career and Transfer Opportunities:

Career Opportunities

Upon successful completion of this degree, students will be prepared for careers or employment in the following fields: firefighter, firefighter-paramedic, fire investigation, fire prevention, hazardous materials, and public education. The fire service offers many career opportunities for graduates including positions in municipal fire departments, fire protection districts, and more than 250 California state fire protection agencies. There are also employment opportunities in forestry agencies, correctional institutions, military bases, and numerous federal agencies.

Note

This degree is not designed for transfer; however, the courses included in this degree may be transferable and apply to other degrees designed for transfer.

Program Outcomes:

Program Outcomes

- Explain the history and basic principles of the fire service.
- Demonstrate effective communication and interpersonal skills with supervisors, peers, and the public.
- Demonstrate an understanding of the principles of fire development, cause, and prevention.
- Demonstrate in-depth knowledge of the principles of fire control through the utilization of personnel, equipment, extinguishing agents on the fire ground.
- Apply knowledge of building construction, fire protection systems, and fire prevention codes to affect safer occupancies and fire control.
- Apply the theory and principles for the use of water in fire suppression activities, including hydraulic principles.

Requirements

Code	Title	Units
GENERAL EDUCATION AND SUBJECT REQUIREMENTS		25
College of the Sequoias' Associate Degree General Education (COS-GE)		

+		
REQUIRED MAJOR COURSES		18
FIRE 155	Fire Behavior and Combustion	3
FIRE 157	Fire Prevention Technology	3
FIRE 159	Introduction to Fire Protection Organizations	3
FIRE 160	Fire and Emergency Safety	3
FIRE 163	Fundamentals of Fire Protection Equipment and Systems	3
FIRE 182	Building Construction for Fire Safety	3
+		
RESTRICTED ELECTIVES - Select concentration A or B		
Note: Most students select Concentration A. Students who have completed the Basic Fire Fighter Academy requirements through Work Experience are exempt from taking FIRE 270 and should select Concentration B to complete degree.		
CONCENTRATION A		24
To receive an A.S. Degree AND to meet minimum qualifications for employment as a fire fighter the following courses are REQUIRED:		
EMT 251	Emergency Medical Technician (EMT)	6
FIRE 285	Combined Firefighter 1 and 2 Academy	18
OR		
CONCENTRATION B		13
For career opportunities in fields OTHER THAN fire fighter and students exempt from taking FIRE 285, select a minimum of 13 units from the following:		
EMT 251	Emergency Medical Technician (EMT)	6
FIRE 125	Fundamentals of Fire Apparatus and Equipment	3
FIRE 230	SFM Company Officer 2A	2
FIRE 231	SFM Company Officer 2B	1
FIRE 232	SFM Company Officer 2C	2
FIRE 233	SFM Company Officer 2D	2
FIRE 234	Company Officer 2E	2
FIRE 280	Fire Fighter 2 Academy	5
+		
ELECTIVES		0-4
Select additional degree applicable courses numbered 1-299 to achieve 60 units.		
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TOTAL		60-67

The Associate Degree requirements include completion of the:

1. Required major courses and restricted elective courses with a "C" or better grade in each course (required and restricted elective courses may be substituted with the approval of the Division Chair),
2. General Education requirements,
3. Subject requirements including PE, Health & Wellness, and American Institutions, and
4. A minimum of 60 units of degree applicable courses numbered 1-299, at least 12 of which must be taken in residence at College of the Sequoias, with a "C" (2.0) average (see Associate Degree Requirements (<https://catalog.cos.edu/associate-degree-requirements/>) for additional details).

Units for Degree Major or Area of Emphasis (Min):

31

Units for Degree Major or Area of Emphasis (Max):

42

Total Units for Degree (Min):

60

Total Units for Degree (Max):

67



TOP Code:

213300 - * Fire Technology

Enrollment Projections:

30