



## Fire Technology

### Degrees

Fire Technology, Associate of Arts

Wildland Firefighting, Associate of Science

### Certificates

Executive Chief Fire Officer, Certificate of Achievement

Fire Fighter I Academy, Certificate of Achievement

Fire Technology, Certificate of Achievement

Fire Academy, Job Skills Certificate

Wildland Firefighting, Job Skills Certificate

## Fire Technology

### Associate of Arts Degree

This degree program of study was developed to assist students who desire to become a firefighter, or desire Fire Technology as a career. This certificate or degree will aid existing firefighters in promoting/advancing through the ranks of engineer, captain, battalion chief, etc. The Bakersfield Fire Department requires an associate degree before a captain can take the promotional exam for battalion chief. This course of study will transfer to a four-year institute.

Note: FIRE B1 can be waived if the student has completed either academy (B62, B63 or B64) and B2 can be waived for students who have a minimum of two years continuous experience as a full-time paid firefighter. A GPA of at least 2.0 is required in the fire technology program. Of the 18 units required, a minimum of 12 units must be completed at Bakersfield

Bakersfield College's Regional Fire Technology Academy (RFTA) was authorized by the California Fire Service Training and Education System in 1980, with programs of study leading to Certified Company Officer, Chief Fire Officer, Executive Chief Officer. RFTA sponsors many cooperative training programs with federal, state, and local fire protection agencies. Individuals may develop a program suitable to their career goals with the aid of a college counselor. Courses may lead to the achievement of specific career goals, immediate employment, an associate degree, or transfer credits that satisfy requirements for a bachelor's degree in Fire Technology.

#### To Achieve the Associate in Arts

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Fire Technology Associate in Arts degree.

#### Total Units: 26

##### Required Courses

Course #	Name	Units
FIRE B1	Fire Protection Organization	3.0
FIRE B2	Principles of Fire and Emergency Services Safety and Survival	3.0
	<i>or</i>	
FIRE B7	Building Construction for Fire Protection	3.0
FIRE B3	Fire Command, Strategy, Tactics	3.0
FIRE B4	Fire Behavior and Combustion	3.0
FIRE B5	Fire Prevention	3.0
FIRE B6	Fire Protection Equipment and Systems	3.0
EMTC B50	Emergency Medical Technician	8.0

#### Program Learning Outcomes

Upon successful completion, the student will:

- identify minimum qualifications and entry-level skills for fire fighting hiring.
- demonstrate the ability to analyze, appraise and evaluate fire and emergency incidents.
- 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.
- 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.
- identify and describe the apparatus used in the fire service, and the equipment and maintenance of fire apparatus and equipment.
- identify and describe common types of building construction and conditions associated with structural collapse and firefighter safety.
- differentiate between fire detection and fire suppression systems.

## Wildland Firefighting

### Associate of Science Degree

This degree is designed for people who desire to enter or enhance their career in a state or federal wildland firefighting agency. The course material is linked with the National Multi-Agency Coordinating Group certification process.

Additional course work is designed to meet or exceed the National Fire Protection Association's 1051 Standard on Wildland Fire Fighter Professional Qualifications. The elective material is designed to allow a student to obtain some degree of specialization that may tailor a student's education to qualify for supervisor positions in a wildland organization. Students may be placed in paramilitary and physically demanding environments designed to introduce the student to the job tasks and skills required to operate in the wildland fire services.

#### Career opportunities Include:

Forest Service and the Bureau of Land Management. Discharged military service personnel can use their military service time towards their career in the Forest Service or the BLM.

To Achieve the Associate in Science

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Wildland Fire Technology Associate in Science degree.

#### Program Learning Outcomes

Upon successful completion, the student will:

- differentiate influences effecting fire behavior.
- determine safety zones and escape routes.
- establish suppression priorities.
- describe the role of the public information officer in overall incident organization.
- compose planning section written objectives.

#### Total Units: 30

##### Required Courses

Course #	Name	Units
FIRE B25A	Wildland Fire Behavior	3.0
FIRE B25B	Wildland Firefighter Safety & Survival	3.0
FIRE B25C	Wildland Fire Operations	3.0
FIRE B25D	Wildland Public Information Officer, Prevention, & Investigation	3.0
FIRE B25E	Wildland Fire Logistics, Finance, and Planning	3.0

##### Electives - Select at least 15 units from the following:

FIRE B26A	Initial Attack Incident Commander Type 4 (ICT4) (S-200)	1.0
FIRE B26D	Interagency Incident Business Management S-260	1.0
FIRE B26E	Fire Operations in the Wildland Urban Interface (S-215)	1.5
FIRE B26G	S-230 Crew Boss Single Resource	1.5
FIRE B26K	Field Observer (S-244)	1.5
FIRE B26M	Display Processor (S-245)	1.0
FIRE B27B	I-300 Intermediate Incident Command System (I-300)	1.5
FIRE B28B	L-280 Followership to Leadership	0.5

## Executive Chief Fire Officer Certificate of Achievement

The Certificate of Achievement, Executive Chief Fire Officer Certificate of Achievement is designed to meet the training and educational requirements established by the State Fire Marshal's Office for Fire Officer certification. The program will prepare students for the Company Officer, Chief Fire Officer, and Executive Chief Fire Officer exam and certification as a California State Executive Chief Fire Officer. After successful completion of this certificate, students will be able to take promotional exams for career advancement State wide.

Upon completion of the following courses with at least a "C" grade in each course, a student will be awarded a Certificate of Achievement for Executive Chief Fire Officer

### Program Learning Outcomes

Upon successful completion, the student will:

- Identify the different levels of certification in the Executive Chief Fire Officer certification track, Including Company Officer, Chief Fire Officer and Executive Chief Fire Officer.
- Describe administrative policies and procedures, including purchasing and budget processes.
- Identify methods to determine accident and injury prevention program effectiveness. Analyze data and accepted safety practices.
- Determine effective recruitment, selection, and placement of human resources according to the law and consistent with current best practices.

### Total Units: 21.5

#### Required Courses

Course #	Name	Units
FIRE B52A	Company Officer 2A	2.0
FIRE B52B	Company Officer 2B	1.0
FIRE B52C	Company Officer 2C	2.0
FIRE B52D	Company Officer 2D	2.0
FIRE B52E	Company Officer 2E	2.0
FIRE B52F	Chief Fire Officer 3A	1.5
FIRE B52G	Chief Fire Officer 3B	1.0
FIRE B52H	Chief Fire Officer 3C	1.0
FIRE B52I	Chief Fire Officer 3D	1.0
FIRE B52J	Executive Chief Fire Officer 4A	1.5
FIRE B52K	Executive Chief Fire Officer 4B	0.5
FIRE B52L	Executive Chief Fire Officer 4C	1.5
FIRE B52M	Executive Chief Fire Officer 4D	2.0
FIRE B52N	Executive Chief Fire Officer 4E	0.5
FIRE B52O	Fire Instructor 1	2.0

## Fire Fighter I Academy Certificate of Achievement

The Fire Fighter I Academy Certificate of Achievement is designed to meet the training and educational requirements established by the State Fire Marshal's Office for Fire Fighter I certification. The program will prepare students for the national registry exam and certification as a California State Emergency Medical Technician. After successful completion of this certificate, students will be authorized to take the National Registry EMT examination.

To Achieve the Certificate of Achievement Upon completion of the following courses with a grade of 'C' or better in each course, students will be awarded a Fire Fighter I Academy Certificate of Achievement.

### Program Learning Outcomes

Upon successful completion, the student will:

- perform skills that meet National Fire Protection Association Standard 1001 for Fire Fighter and California State Fire Marshal Standards for Fire Fighter.
- demonstrate written and verbal communication skills required for entry-level fire fighter positions.
- analyze emergency and hazardous conditions that are inherent to the firefighting profession.

### Total Units: 20.5-24.5

#### Required Courses

Course #	Name	Units
FIRE B64	State Firefighter I Academy	16.5
	or	
FIRE B62	Firefighter I Academy	12.5
	and	
EMTC B50	Emergency Medical Technician	8.0

The courses can be taken out of order. If students take these courses in the following sequence, they can complete the program in one year (two semesters):

1. EMTC B50 taken in fall of year 1.  
(with a "C" or higher grade.)
2. Fire B64 OR B62 taken in spring of year 1.  
(with a "C" or higher grade.)

Total Units: 20.5 – 24.5 units

## Fire Technology

### Certificate of Achievement

This certificate was developed to assist students who desire to become a firefighter, or desire Fire Technology as a career. This certificate will aid existing firefighters in promoting/advancing through the ranks of engineer, captain, battalion chief, etc. The Bakersfield Fire Department requires an associate degree before a captain can take the promotional exam for battalion chief. This course of study will transfer to a four-year institution.

*Note: FIRE B1 is a prerequisite and must be completed before taking other core fire technology courses. FIRE B1 can be waived if the student has completed either academy (B62 or B63) and B2 can be waived for students who have a minimum of two years continuous experience as a full-time paid firefighter. A GPA of at least 2.0 is required in the fire technology program. Of the 30 units required, a minimum of 12 units must be completed at Bakersfield College.*

Bakersfield College's Regional Fire Technology Academy (RFTA) was authorized by the California Fire Service Training and Education System in 1980, with programs of study leading to Certified Fire and Certified Fire Chief. RFTA sponsors many cooperative training programs with federal, state, and local fire protection agencies. Individuals may develop a program suitable to their career goals with the aid of a college counselor. Courses may lead to the achievement of specific career goals, immediate employment, an associate degree, or transfer credits that satisfy requirements for a bachelor's degree in Fire Technology.

#### Total Units: 33.5-36.5

##### Required Courses

Course #	Title	Units
FIRE B1	Fire Protection Organization	3.0
FIRE B2	Principles of Fire and Emergency Services Safety and Survival	3.0
	or	
FIRE B7	Building Construction for Fire Protection	3.0
FIRE B3	Fire Command, Strategy, & Tactics	3.0
	or	
FIRE B51B	Fire Command 1A	2.0
FIRE B4	Fire Behavior and Combustion	3.0
FIRE B5	Fire Prevention	3.0
	or	
FIRE B51D	Fire Prevention 1A and	2.0
FIRE B51E	Fire Prevention 1B	2.0
FIRE B6	Fire Protection Equipment and Systems	3.0
FIRE B72H	Emergency Medical Technician 1	7.5

#### To Achieve the Certificate of Achievement

Upon completion of the following courses with at least a 'C' grade in each course, the student will be awarded a Fire Technology Certificate of Achievement.

#### Program Learning Outcomes

Upon successful completion, the student will:

- identify minimum qualifications and entry-level skills for fire fighter hiring.
- describe the following elements:
  - application process.
  - written exam process.
  - physical agility exam.
  - oral interview.
  - chief's interview.
  - background investigation.
  - fire fighter probationary process.
  - identify fire service history, culture, and diversity.
- 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 conditions.
  - Incident Command System.
  - RECEO.
  - 10 Standard Firefighting Orders.
  - 18 Situations that shout "Watch Out."
  - common factors associated with injuries and line of duty deaths.

#### Required General Education Courses

Course #	Title	Units
ENGL B50*	Introduction to College Composition	4.0
	or	
ENGL B1A	Expository Composition	3.0
PSYC B1A	General Psychology	3.0
	or	
SOCI B1	Introduction to Sociology	3.0
COMM B1	Public Speaking	3.0
	or	
COMM B2	Interpersonal Communication	3.0
	or	
COMM B4	Persuasive Communication	3.0
	or	
COMM B8	Small Group Communication	3.0

\*ENGL B60 may be substituted for ENGL B50 or ENGL B1a for Fire Technology Certificate of Achievement only.

Note: FIRE B1 and B2 are waived for students who have a minimum of two years service as a paid, full-time firefighter. A GPA of at least 2.0 is required in the certificate program. Of the 33.5-36.5 units required, a minimum of 12 units must be completed at Bakersfield College.

## Fire Academy Job Skills Certificate

The Fire Academy Job Skills Certificate will prepare the student for entry level firefighter positions, and provides the minimum training required to become a reserve firefighter. It provides the basic educational and practical training essential for firefighting, including the advanced study of organizational procedures; forcible entry tools; protective breathing apparatus; inspection procedures; fire protection equipment and systems; wildland fire control; EMR; fire behavior; and petroleum fire procedures.

### Program Learning Outcomes

Upon successful completion, the student will:

- perform skills that meet National Fire Protection Association Standard 1001 for Fire Fighter and California State Fire Marshal Standards for Fire Fighter 1.
- demonstrate written and verbal communication skills required for entry-level fire fighter positions.
- analyze emergency and hazardous conditions that are inherent to the firefighting profession.

### Total Units: 12.5-18.0

#### Required Courses

Course #	Name	Units
FIRE B62	Fire Fighter I Academy	12.5
FIRE B64	Firefighter I Academy or and	15.0
EMTC B51	Emergency Medical Responder	3.0

## Wildland Firefighting Job Skills Certificate

The Wildland Firefighting Job Skills Certificate will prepare students for a career in wildland firefighting, to work on the fire ground, and be red carded. This job skills certificate is required for the student to apply for a wildland firefighter position. The certificate will provide students with a basic understanding of wildland firefighting principles, tactics, organization, and fireline safety. It includes training in the identification and operation of wildland fire tools and equipment, water-handling equipment, and fireline construction practices.

### To Achieve the Job Skills Certificate

Upon completion of the following courses with a grade of 'C' or better in each course, students will be awarded a Wildland Firefighting Job Skills Certificate.

### Program Learning Outcomes

Upon successful completion, the student will:

- explain and demonstrate an understanding of wildland fire service organizations.
- describe and explain the environmental factors of fire behavior which affect a wildfire.
- demonstrate an understanding of important safety practices involved in wildland firefighting.
- identify and operate common wildland firefighting hand tools and equipment.
- explain and demonstrate how to construct a fireline.  
analyze information on water-handling equipment.

### Total Units: 3

#### Required Courses

Course #	Name	Units
FIRE B71A	Seasonal Firefighter Basic Training	2.0
FIRE B71B	Seasonal Firefighter Basic Training	1.0