

# FIRE SCIENCE

**Fire Science** – Firefighter, Fire Investigator, Fire Officer, HazMat, NWCG FFT2, EMT

Every year, fire and other emergencies take thousands of lives and destroy property worth billions of dollars. Firefighters help protect the public against these dangers. They are frequently the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to put out a fire, treat injuries, or perform other vital functions.

Firefighter employment continues to increase. According to the United States Fire Administration, nearly 70 percent of fire companies are staffed by volunteer firefighters. Most job growth will occur as volunteer fire-fighting positions are converted to paid positions. In addition to job growth, openings are expected to result from the need to replace firefighters who retire, stop working for other reasons, or transfer to other emergency service entities.

Southeast New Mexico College provides training for firefighting personnel through its Fire Science program, which is accredited by the International Fire Service Accreditation Congress (IFSAC). Students will receive training in the basic concepts of firefighting and will participate in live evolutions that will give them real experience in the firefighting career field. This program provides classroom instruction leading to an Associate of Applied Science degree in fire science or a certificate of completion in firefighting. It is suited to those who are new to the field, as well as incumbent firefighters.

- Career and volunteer firefighters and NMSU student firefighters will improve their job performance and prepare for higher level positions in the fire protection fields.
- Students who wish to enter the field of fire protection will benefit from the basic foundations provided in the technical courses as well as general education courses.

**NOTE:** An articulation agreement with the N.M. Firefighters Training Academy makes it possible to receive college credit for experience and IFSAC certification.

**NOTE:** Students wishing to enter the fire service will benefit from the educational background provided and may receive certifications in various fire-related areas through the New Mexico Firefighters Training Academy in Socorro, N.M., and the IFSAC.

## Program Accreditation

The Fire Science Program is accredited by the International Fire Service Accreditation Congress (<https://ifsac.org/>).

## Medical Clearances and Background Checks

Most of the health programs in Fire Science require students undergo the New Mexico Department of Health caregiver's criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting the Emergency Medical Technician or EMT portion of the program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions through the New Mexico Department of Health. Depending on the program, students may or may not be allowed to remain in the program pending appeal.

**NOTE:** Vaccines and drug screenings are also required during the clinical portion of the program.

## Physical Requirements

Reasonable accommodations are made for students with disabilities. However, some disabilities may prohibit students from completing program specific competencies or gaining employment. Students with disabilities that may interfere with completing program competencies are advised to contact the Fire Science Program Director for more information. This program requires that the student be able to:

- lift, carry and balance up to 125 pounds (250 pounds with assistance)
- assume a variety of postural positions and be capable of physical maneuvers ranging from crawling, kneeling, squatting, twisting, turning, and bending, to climbing stairs and ladders
- withstand varied environmental conditions such as extreme heat, cold, and moisture

## Technology Competencies

To assist students with adequate preparation for their coursework at SENMC, technology competencies have been identified and established. These competencies are in effect for all courses taken in the Fire Science program. Students must possess the following minimum competencies. Additional competencies may be required for particular courses/ programs:

- Access course and program material on the Web using CANVAS and an applicable web browser
- Correspond with SENMC students and faculty using e-mail and the Web
- Read/print e-mail and attachments/files from students and faculty
- Complete, send, and receive assignments using e-mail and attachments/files
- Use the SENMC Library e-books, e-journals, databases, or credible World Wide Web resources for research and completion of course assignments
- Prepare and conduct presentations in the classroom using presentation equipment as required.
- Use the appropriate software for a given course (SENMC uses as standard Microsoft products, including MS Word, MS Project, MS Excel, and MS PowerPoint)
- Use an appropriate anti-virus application to ensure the files transmitted and received are virus free
- Use recommended plagiarism review software to ensure work is not plagiarized

## Fire Science – Associate of Applied Science

(61 credits)

**NOTE:** Students must earn a final grade of C- or better in all required FIRE and FIRE related-elective courses and achieve a cumulative grade-point average of at least 2.0. A grade of C- or better is required in ENGL 1110G Composition I and MATH 1130G Survey of Mathematics courses.

Students must complete all SENMC degree requirements, which include General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

**Licensing**

Students completing various Fire Science courses will be allowed to sit for the associated IFSAC, ProBoard or NWCG certification exams.

Additionally, upon completion of the EMT portion of the program the student will be allowed to take the National Registry EMT exam.

**Credit for Industry Credentials**

Any student with a nationally recognized fire instruction or preapproved departmental courses may be awarded college credit hours toward an A.A.S. degree in Fire Science. Students are required to complete at least 15 credit hours through SENMC. A maximum of 45 credit hours can be awarded by Credit for Industry Credentials. Documents submitted for Credit for Industry Credentials must be the original or notarized copies (documents will not be returned).

Training must meet one of the following requirements:

1. International Fire Service Accreditation Congress (IFSAC) certification
2. National Board on Fire Service Professional Qualifications (Pro Board) certification
3. National Wildfire Coordinating Group (NWCG) credentialed courses
4. National Fire Academy courses
5. New Mexico State Fire Academy courses
6. Preapproved departmental courses.

Course	Title	Hours
<b>First Year</b>		
<b>Fall</b>		
ENGL 1110G	Composition I	4
FIRE 112	Principles of Emergency Services	3
FIRE 101	Firefighter I	8
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
FIRE 104	Firefighter II	8
FIRE 115	Hazardous Materials Awareness and Operations	3
MATH 1130G	Survey of Mathematics	3
<b>Hours</b>		<b>14</b>
<b>Summer</b>		
PHIL 2110G	Introduction to Ethics	3
PSYC 1110G or SOCI 1110G or SOCI 2310G	Introduction to Psychology or Introduction to Sociology or Contemporary Social Problems	3
<b>Hours</b>		<b>6</b>
<b>Second Year</b>		
<b>Fall</b>		
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	4
ENGL 2210G	Professional and Technical Communication	3
FIRE 252	Vehicle Extrication	2
FIRE 220	Cooperative Experience I	3
FIRE 128	Apparatus and Equipment	2
<b>Hours</b>		<b>14</b>
<b>Spring</b>		
OEEM 120	Emergency Medical Technician Basic	6
OEEM 120 L	Emergency Medical Technician Basic Lab	2
OEEM 121	Emergency Medical Technician Basic Field/ Clinical	1

FIRE 230	Fire Service Instructor	3
<b>Hours</b>		<b>12</b>
<b>Total Hours</b>		<b>61</b>
<b>Code</b>	<b>Title</b>	<b>Hours</b>
General Education		
Area I: Communications		
ENGL 1110G	Composition I	
ENGL 2210G	Professional and Technical Communication	
Area II: Mathematics		
MATH 1130G	Survey of Mathematics	
Area III: Laboratory Science		
BIOL 1130G	Introductory Anatomy & Physiology (non-majors)	
Area IV: Social/Behavioral Sciences		
SOCI 1110G	Introduction to Sociology or PSYC 111 Introduction to Psychology or SOCI 231 (Contemporary Social Problems)	
Area V: Humanities		
PHIL 2110G	Introduction to Ethics	
Core Curriculum Requirements		
FIRE 101	Firefighter I	8
FIRE 104	Firefighter II	8
FIRE 112	Principles of Emergency Services	3
FIRE 115	Hazardous Materials Awareness and Operations	3
FIRE 202	Course FIRE 202 Not Found	
OEEM 120	Emergency Medical Technician Basic	6
OEEM 120 L	Emergency Medical Technician Basic Lab	2
OEEM 121	Emergency Medical Technician Basic Field/Clinical	1
FIRE-Related Electives - Select 8 credits from the list below:		8
FIRE 128	Apparatus and Equipment	
FIRE 203	Fire and Emergency Services Administration	
FIRE 220	Cooperative Experience I	
FIRE 223	Fire Investigations I	
FIRE 230	Fire Service Instructor	
FIRE 252	Vehicle Extrication	
FIRE 104	Firefighter II	
FIRE 105	Course FIRE 105 Not Found	
FIRE 114	Fire Behavior and Combustion	
<b>Total Hours</b>		<b>59</b>