Fire Science Technology

Program **FIRE.SCI.AAS**
CIP 430201

Associate in Applied Science Degree

The associate degree program in Fire Science Technology provides students with the skills and knowledge to become highly competitive candidates for entry and/or advancement as professional and volunteer fire and emergency services personnel.

The FIR 107 course (Fire Prevention and Code Enforcement I) meets the educational requirements of the New Jersey Division of Fire Safety for Fire Inspector. FIR 209 (Fire Prevention and Code Enforcement II) meets the educational requirements for Fire Official. Students seeking a career in fire code enforcement are encouraged to check with the New Jersey Division of Fire Safety for other certification requirements.

Based on a national curriculum that promotes learning and advocacy of critical emergency service leadership and fire safety principles, the associate degree program integrates technical study with coursework in mathematics, English, physical science, and liberal arts to provide graduates with the necessary ancillary knowledge to advance into supervisory and/or management-level positions.

PROGRAM OUTCOMES

- Discuss the history, support organizations, resources, incident management, training, and emergency operations and relate how each plays a role within the fire service;
- Define and use basic terms and concepts associated with the chemistry and dynamics of fire;
- Apply principles of hydraulics, building construction, strategy, and tactics to fireground operations;
- Communicate the relationship of fire prevention and fire inspection;
- Demonstrate the importance of public education in relation to fire prevention;
- Evaluate facilities to appraise code compliance and potential hazards, building construction issues, and presence of appropriate fire protection systems to help ensure life safety both pre-incident and during an incident;
- Employ safe work practices using recognized standards and regulations.

Students pursuing programs in fire science should be aware that various municipal and industrial fire service agencies establish physical, mental, and character requirements. Persons interested in this option are advised to gain an awareness of the specific requirements for their desired work setting. MCCC graduates are employed by city, state, and federal departments dedicated to the fire services field.

A.A.S. Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
FIR 101	Introduction to Fire Science (3/0)	3
FIR 107	Fire Prevention and Code Enforcement I (4/2)	5
MAT —	Mathematics elective[1]	3
— —	Elective[2]	3
SECOND SEMESTER		
ENG 112	English Composition II with Speech (3/0)	3
FIR 104	Building Construction (3/0)	3
FIR 201	Hazardous Materials I (3/0)	3
PHY 111	Physical Science Concepts (2/2)	3
FIR —	Fire Science elective[3]	3
THIRD SEMESTER		
FIR 202	Water Supply for Fire Protection (3/0)	3
FIR 203	Fire Protection Systems (3/0)	3
HPE 110	Concepts of Health and Fitness (1/2)†	2
FIR —	Fire Science elective[3]	3
— —	General Education elective[4]	3
— —	General Education elective[5]	3
FOURTH SEMESTER		
FIR 204	Fire Fighting Tactics (3/0)	3
FIR —	Fire Science elective[3]	3
FIR —	Fire Science elective[3]	3
— —	General Education elective[5]	3
— —	Elective[2]	3
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[1] MAT 120 or 125 recommended. Select in consultation with an academic advisor.

[2] Current certification as an EMT or EMPT may be substituted for 6 credits.

[3] Select from FIR 205, 206, 208, 209, 211.

[4] Select course from either Social Science or Humanities general education categories.

[5] Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.

†**CSW 100 is a preferred alternative**; HPE 111 is an acceptable alternative.

Since the degree program is designed to meet the needs of the part-time student, it normally will take a minimum of three years to complete. All fire science courses are offered in the evening.

Fire Science Technology is not designed as a transfer program and some credit loss may occur for those who intend to continue their education at a four-year institution. Students interested in transferring should contact the program advisor early in their coursework at MCCC.

Admission to the program requires a high school diploma or its equivalent and competency in English and mathematics as demonstrated by placement testing.