

FIRE SCIENCE MANAGEMENT, ASSOCIATE IN APPLIED SCIENCE



College(s): MX

Program Code: 0413

The Fire Science Management degree is designed to concentrate on management and officer training with a target population of those who are already employed in a fire service and particularly addressing the specific higher education needs of the Chicago Fire Department (CFD).

Program Requirements

Code	Title	Hours
General Education Coursework		
ENGLISH 101	Composition	3
MATH 118	General Education Math (or higher Gen Ed math course)	4
PSYCH 201	General Psychology	3
BIOLOGY 116	Introduction to Anatomy And Physiology	4
	or BIOLOGY 121Biology I	
	or BIOLOGY 226Human Structure and Function I	
	or CHEM 121 Basic Chemistry I	
	or CHEM 201 General Chemistry I	
Select a General Education course that is a Human Diversity course. ¹		3
Required Program Core		
EMT 101	Emergency Medical Technician-Basic	8
FIREMGT 101	Principles of Emergency Services	3
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 103	Fire Behavior and Combustion	3
FIREMGT 197	Principles of Emergency Responder Safety and Survival	3

FIREMGT 200	Management and Leadership I	3
FIREMGT 202	Building Construction for Fire Science	3
FIREMGT 203	Fire Suppression and Protection Systems	3
FIREMGT 204	Management and Leadership II	3
FIREMGT 210	Principles of Fire Prevention	3

Program Electives

Select a minimum of nine credit hours of the following: 9

FIREMGT 104	Occupational Safety & Health for Emergency Services
FIREMGT 106	Fire Apparatus and Equipment Operator
FIREMGT 111	Basic Incident Command
FIREMGT 198	Strategies and Tactics II
FIREMGT 201	Fire Service Hydraulics
FIREMGT 205	Chemistry of Hazardous Materials
FIREMGT 206	Management and Operations III
FIREMGT 211	Management Operations IV
FIREMGT 220	Fire Instructor I
FIREMGT 212	Fire Investigation I
FIREMGT 213	Fire Investigation II
FIREMGT 221	Fire Instructor II

Total Hours 61

¹ Human Diversity Courses < City Colleges of Chicago (ccc.edu) (<https://catalog.ccc.edu/hd/>)

Pathway

This is an **example course sequence** for students interested in earning a degree in Fire Science Management. If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS) degree in Fire Science Management. It does not represent a contract, nor does it

guarantee course availability. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

Check the program webpage (<https://www.ccc.edu/colleges/malcolm-x/departments/Pages/Fire-Science.aspx>) for details about session dates and times.

Semester-by-Semester Program Plan for Full-Time Students

All plans can be modified to fit the needs of part-time students by adding more semesters.

Semester 1		Hours
Semester One		
ENGLISH 101	Composition ¹	3
FIREMGT 101	Principles of Emergency Services	3
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 200	Management and Leadership I	3
Hours		12
Semester 2		
Semester Two		
MATH 118	General Education Math ^{1, 4}	4
FIREMGT 103	Fire Behavior and Combustion	3
FIREMGT 204	Management and Leadership II	3
Hours		10
Semester 3		
Semester Three		
BIOLOGY 116 or BIOLOGY 121 or BIOLOGY 226 or CHEM 121 or CHEM 201	Introduction to Anatomy And Physiology ¹ or Biology I or Human Structure and Function I or Basic Chemistry I or General Chemistry I	4
PSYCH 201	General Psychology ¹	3
Hours		7
Semester 4		
Semester Four		
Any General Education, Human Diversity Course ¹		3
FIREMGT 197	Principles of Emergency Responder Safety and Survival	3
FIREMGT 202	Building Construction for Fire Science	3
FIREMGT 210	Principles of Fire Prevention	3
Hours		12
Semester 5		
Semester Five		
FIRE MGT 106	²	3
FIREMGT 201	Fire Service Hydraulics ²	3
FIREMGT 203	Fire Suppression and Protection Systems	3
FIREMGT 212	Fire Investigation I ²	3
Hours		12
Semester 6		
Semester Six		
EMT 101	Emergency Medical Technician-Basic	8
Hours		8
Total Hours		61

¹ General Education Requirement

² Program Elective (p. 2)

³ Human Diversity Courses < City Colleges of Chicago (ccc.edu) (<https://catalog.ccc.edu/hd/>)

⁴ or higher Gen Ed math course

Program Electives

Associate in Applied Science Electives

Code	Title	Hours
FIREMGT 104	Occupational Safety & Health for Emergency Services	3
FIRE MGT 106		
FIRE MGT 111		
FIREMGT 198	Strategies and Tactics II	3
FIREMGT 205	Chemistry of Hazardous Materials	3
FIREMGT 206	Management and Operations III	3
FIREMGT 211	Management Operations IV	3
FIREMGT 212	Fire Investigation I	3
FIREMGT 213	Fire Investigation II	3
FIREMGT 220	Fire Instructor I	3

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (<https://www.ccc.edu/departments/Pages/Career-Services.aspx>).

First-Line Supervisors of Firefighting and Prevention Workers

Job Description

Directly supervise and coordinate activities of workers engaged in firefighting and fire prevention and control.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10 th Percentile	\$78,327
Median 50 th Percentile	\$130,313
Senior-Level 90 th Percentile	\$199,057

Hourly Wages

Entry-Level 10 th Percentile	\$38
Median 50 th Percentile	\$63
Senior-Level 90 th Percentile	\$96

Annual Job Openings

90 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	32.30%
A certificate	18.72%
Some college	11.76%
An Associate degree	23.84%
A Bachelor's degree	13.24%
A Master's or Professional degree	0.02%
A Doctoral degree or more	0.12%

13.38% continue their education beyond an associate degree

Firefighters

Job Description

Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10 th Percentile	\$40,108
Median 50 th Percentile	\$91,270
Senior-Level 90 th Percentile	\$120,938

Hourly Wages

Entry-Level 10 th Percentile	\$19
Median 50 th Percentile	\$44
Senior-Level 90 th Percentile	\$58

Annual Job Openings

650 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	45.25%
A certificate	24.60%
Some college	19.50%
An Associate degree	7.15%
A Bachelor's degree	0.43%

A Master's or Professional degree 2.96%

A Doctoral degree or more 0.10%

3.49% continue their education beyond an associate degree

Fire Inspectors and Investigators

Job Description

Inspect buildings to detect fire hazards and enforce local ordinances and state laws, or investigate and gather facts to determine cause of fires and explosions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10 th Percentile	\$46,265
Median 50 th Percentile	\$75,361
Senior-Level 90 th Percentile	\$130,409

Hourly Wages

Entry-Level 10 th Percentile	\$22
Median 50 th Percentile	\$36
Senior-Level 90 th Percentile	\$63

Annual Job Openings

22 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	29.44%
A certificate	27.49%
Some college	26.01%
An Associate degree	12.82%
A Bachelor's degree	2.19%
A Master's or Professional degree	2.04%
A Doctoral degree or more	0.00%

4.23% continue their education beyond an associate degree

Forest Fire Inspectors and Prevention Specialists

Job Description

Enforce fire regulations, inspect forest for fire hazards, and recommend forest fire prevention or control measures. May report forest fires and weather conditions.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10 th Percentile	\$38,219
Median 50 th Percentile	\$60,289
Senior-Level 90 th Percentile	\$102,620

Hourly Wages

Entry-Level 10 th Percentile	\$18
Median 50 th Percentile	\$29
Senior-Level 90 th Percentile	\$49

Annual Job Openings

3 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program	% of Jobs
A high school diploma or less	31.63%
A certificate	8.92%
Some college	17.52%
An Associate degree	17.90%
A Bachelor's degree	24.03%
A Master's or Professional degree	0.00%
A Doctoral degree or more	0.00%

24.03% continue their education beyond an associate degree