

# FIRE SERVICE OPERATIONS, ASSOCIATE IN APPLIED SCIENCE



College(s): MX

Program Code: 0414

The Fire Service Operations degree focuses on fire suppression and prevention and general emergency response operations with a target population of the college student interested in a career in emergency and fire service but not yet employed by a department.

## Program Requirements

### For students entering Fall 2023 or earlier

Code	Title	Hours
<b>General Education Coursework</b>		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
	or SPEECH 101 Fundamentals of Speech Communication	
MATH 118	General Education Math	4
PSYCH 201	General Psychology	3
BIOLOGY 114	General Education Biology	4
SOC 201	Intro To the Study Of Society (HD)	3
Select one of the following Human Diversity (HD) Courses:		3
HUM 212	Non-Western Humanities	
LIT 128	Latin American Literature	
LIT 131	Survey Of Afro-American Poetry	
LIT 150	Women's Literature	
<b>Required Program Core</b>		
EMT 101	Emergency Medical Technician-Basic	8
FIREMGT 101	Principles of Emergency Services	3
FIREMGT 103	Fire Behavior and Combustion	3
FIREMGT 197	Principles of Emergency Responder Safety and Survival	3

FIREMGT 202	Building Construction for Fire Science	3
FIREMGT 203	Fire Suppression and Protection Systems	3
FIREMGT 210	Principles of Fire Prevention	3
<b>Program Electives</b>		
Select a minimum of 12 credits of the following:		12
FIREMGT 102	Strategies and Tactics I	
FIREMGT 104	Occupational Safety & Health for Emergency Services	
FIREMGT 198	Strategies and Tactics II	
FIREMGT 205	Chemistry of Hazardous Materials	
FIREMGT 212	Fire Investigation I	
FIREMGT 213	Fire Investigation II	
<b>Total Hours</b>		<b>61</b>

### For students entering Spring 2024 or later

Code	Title	Hours
<b>General Education Coursework</b>		
ENGLISH 101	Composition	3
ENGLISH 102	Composition	3
	or SPEECH 101 Fundamentals of Speech Communication	
MATH 118	General Education Math (or higher gen ed math course)	4
PSYCH 201	General Psychology (or higher General Education Psychology)	3
SOC 201	Intro To the Study Of Society (or higher General Education Sociology)	3
Select a Human Diversity Course that is a Gen Ed. <sup>1</sup>		3
Select one of the following science courses:		4
BIOLOGY 116	Introduction to Anatomy And Physiology	
BIOLOGY 121	Biology I	
BIOLOGY 226	Human Structure and Function I	
CHEM 121	Basic Chemistry I	

CHEM 201	General Chemistry I	
<b>Required Program Core</b>		
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 202	Building Construction for Fire Science	3
FIREMGT 203	Fire Suppression and Protection Systems	3
FIREMGT 210	Principles of Fire Prevention	3
<b>Program Electives</b>		
Select a minimum of 9 credits 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 207	HAZWOPER	
FIREMGT 212	Fire Investigation I	
FIREMGT 213	Fire Investigation II	
FIREMGT 220	Fire Instructor I	
FIREMGT 221	Fire Instructor II	
SPANISH 195	Spanish for Firefighters and EMTs	
<b>Total Hours</b>		<b>61</b>

<sup>1</sup> 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 Service Operations. If this pathway is followed as outlined, you will earn an Associate in Applied Science (AAS) degree in Fire Service Operations. 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 (Fall 2023 or earlier)

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

Course	Title	Hours
<b>Semester 1</b>		
ENGLISH 101	Composition <sup>1</sup>	3
ENGLISH 102 or SPEECH 101	Composition <sup>1</sup> or Fundamentals of Speech Communication	3
Select one of the following: <sup>1</sup>		3
HUM 212	Non-Western Humanities	
LIT 128	Latin American Literature	3

LIT 131	Survey Of Afro-American Poetry	
LIT 150	Women's Literature	3
FIREMGT 101	Principles of Emergency Services	3
BIOLOGY 114	General Education Biology <sup>1</sup>	4
<b>Hours</b>		<b>22</b>
<b>Semester 2</b>		
EMT 101	Emergency Medical Technician-Basic	8
MATH 118	General Education Math <sup>1</sup>	4
FIREMGT 103	Fire Behavior and Combustion	3
<b>Hours</b>		<b>15</b>
<b>Semester 3</b>		
FIREMGT 197	Principles of Emergency Responder Safety and Survival	3
FIREMGT 202	Building Construction for Fire Science	3
FIREMGT 203	Fire Suppression and Protection Systems	3
FIREMGT 212	Fire Investigation I <sup>2</sup>	3
PSYCH 201	General Psychology <sup>1</sup>	3
<b>Hours</b>		<b>15</b>
<b>Semester 4</b>		
FIREMGT 104	Occupational Safety & Health for Emergency Services <sup>2</sup>	3
FIREMGT 198	Strategies and Tactics II <sup>2</sup>	3
FIREMGT 210	Principles of Fire Prevention	3
FIREMGT 220	Fire Instructor I	3
SOC 201	Intro To the Study Of Society <sup>1</sup>	3
<b>Hours</b>		<b>15</b>
<b>Total Hours</b>		<b>67</b>

<sup>1</sup> General Education Requirement

<sup>2</sup> Program Elective (p. 2)

## Program electives

Code	Title	Hours
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 104	Occupational Safety & Health for Emergency Services	3
FIREMGT 198	Strategies and Tactics II	3
FIREMGT 205	Chemistry of Hazardous Materials	3
FIREMGT 212	Fire Investigation I	3
FIREMGT 213	Fire Investigation II	3
FIREMGT 220	Fire Instructor I	3
FIREMGT 221	Fire Instructor II	3

Choose your courses with your College Advisor.

## Semester-by-Semester Program Plan for Full-Time Students (Spring 2024 or later)

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

<b>Semester 1</b>		<b>Hours</b>
ENGLISH 101	Composition <sup>1</sup>	3
FIREMGT 101	Principles of Emergency Services	3
FIREMGT 102	Strategies and Tactics I	3
FIREMGT 103	Fire Behavior and Combustion	3
<b>Hours</b>		<b>12</b>
<b>Semester 2</b>		
ENGLISH 102 or SPEECH 101	Composition <sup>1</sup> or Fundamentals of Speech Communication	3
FIREMGT 106	Fire Apparatus and Equipment Operator <sup>2</sup>	3

FIREMG197	Principles of Emergency Responder Safety and Survival	3
FIREMG202	Building Construction for Fire Science	3
Hours		12
Semester 3		
FIREMG202	Building Construction for Fire Science	3
PSYCH201	General Psychology (or higher General Education Psychology course) <sup>1</sup>	3
Choose a General Education course that is HD. <sup>1,3</sup>		3
Choose one of the following classes: <sup>1</sup>		4
BIOLOGY116	Introduction to Anatomy And Physiology	
BIOLOGY121	Biology I	
BIOLOGY226	Human Structure and Function I	
CHEM121	Basic Chemistry I	
CHEM201	General Chemistry I	
Hours		13
Semester 4		
FIREMG203	Fire Suppression and Protection Systems	3
FIREMG207	HAZWOPER <sup>2</sup>	3
FIREMG210	Principles of Fire Prevention	3
SOC201	Intro To the Study Of Society (or higher General Education Sociology course) <sup>1</sup>	3
Hours		12
Semester 5		
EMT101	Emergency Medical Technician-Basic	8
MATH118	General Education Math (or higher General Education Math course) <sup>1</sup>	4
Hours		12
Total Hours		61

<sup>1</sup> General Education Requirement  
<sup>2</sup> Program Elective (p. 3)  
<sup>3</sup> Human Diversity Courses < City Colleges of Chicago (ccc.edu) (<https://catalog.ccc.edu/hd/>)

Program Elective  
Associate in Applied Science Electives

Code	Title	Hours
FIREMG104	Occupational Safety & Health for Emergency Services	3
FIREMG106	Fire Apparatus and Equipment Operator	3
FIREMG111	Basic Incident Command	3
FIREMG198	Strategies and Tactics II	3
FIREMG201	Fire Service Hydraulics	3
FIREMG205	Chemistry of Hazardous Materials	3
FIREMG207	HAZWOPER	3
FIREMG212	Fire Investigation I	3
FIREMG213	Fire Investigation II	3
FIREMG220	Fire Instructor I	3
FIREMG221	Fire Instructor II	3
SPANISH195	Spanish for Firefighters and EMTs	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>).

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 <sup>th</sup> Percentile	\$39,118
Median 50 <sup>th</sup> Percentile	\$78,121
Senior-Level 90 <sup>th</sup> Percentile	\$116,852

Hourly Wages	
Entry-Level 10 <sup>th</sup> Percentile	\$19
Median 50 <sup>th</sup> Percentile	\$38
Senior-Level 90 <sup>th</sup> Percentile	\$56

Annual Job Openings

655 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 <sup>th</sup> Percentile	\$37,999
Median 50 <sup>th</sup> Percentile	\$82,266
Senior-Level 90 <sup>th</sup> Percentile	\$180,520

### Hourly Wages

Entry-Level 10 <sup>th</sup> Percentile	\$18
Median 50 <sup>th</sup> Percentile	\$40
Senior-Level 90 <sup>th</sup> Percentile	\$87

## Annual Job Openings

29 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 <sup>th</sup> Percentile	\$63,568
Median 50 <sup>th</sup> Percentile	\$63,687
Senior-Level 90 <sup>th</sup> Percentile	\$101,496

### Hourly Wages

Entry-Level 10 <sup>th</sup> Percentile	\$31
Median 50 <sup>th</sup> Percentile	\$31
Senior-Level 90 <sup>th</sup> 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