

# Lakeland

COMMUNITY COLLEGE

PROGRAM GUIDE

Applied Studies Division

## Fire Science Technology

- Associate of Applied Science Degree in Fire Science Technology
- Fire Science Technology Certificate

Opportunity  
starts **HERE**  
[lakelandcc.edu](http://lakelandcc.edu)

# Fire Science Technology



Today's ever-changing environment has led the fire science field to encompass areas beyond fire control including: fire prevention, response to hazardous material emergencies, technical rescue training, and assisting in recovery from natural disasters. Organizational entities such as municipal fire departments, airports, private industry fire protection organizations, and insurance companies, rely on the expertise of fire professionals to apply their knowledge of building construction, combustion processes, fire investigation, and much more.



## Career Opportunities

According to the Bureau of Labor Statistics, employment of firefighters nationwide is projected to grow five percent from 2014 to 2024. This will be due to conversion of some departments from volunteer to career, and the need to replace retiring firefighters. Fire service specialists are sought by fire departments nationwide, as well as by insurance companies, industrial organizations, government agencies, and businesses dealing with fire protection and equipment. Job examples include firefighters, fire inspectors, insurance inspectors, and fire investigators at cities and municipalities across the region.

## Lakeland's Program

The program is designed for both pre-service students and in-service firefighters and fire officers. Fire science courses teach theories and techniques that future fire professionals can apply to careers in the service discipline right away. Students learn hands-on at Lakeland's state-of-the-art fire science lab. Lakeland further prepares future fire science professionals by offering students the chance to accompany local fire departments on assignment. Students may assist with hoses, and perform other job functions as permitted by the host department. Students may choose from an Associate of Applied Science degree or a certificate program in fire science technology to meet their educational needs. Additionally, in-service firefighters and fire officers may complete the core courses in the traditional classroom or online. Lakeland's fire science degree can be transferred to other colleges leading to degrees such as a Bachelor of Science in fire administration, public administration or criminal justice, or a Master of Public Administration degree.

## The Lakeland Advantage

- Lakeland's degree program is accredited by the International Fire Service Accreditation Congress.
- Classes are taught by experienced faculty who are trained service firefighters.
- Students who hold an associate degree in fire science may be eligible for bonus points on entry examinations by area fire departments.
- Opportunities for students to accompany fire departments on assignments.
- Degree available entirely online.
- Students can remain on campus to pursue a bachelor's degree through the Holden University Center with Cleveland State University's Bachelor of Arts in Public Safety Management program.

## Lakeland Community College Admission Requirements

For admission into Lakeland, students must be a high school graduate or have obtained a high school diploma equivalency. Please consult Lakeland Community College's Enrollment Guide (available on Lakeland's website at [lakelandcc.edu/enrollment](http://lakelandcc.edu/enrollment)) for specific admissions requirements and procedures.

## For more information

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Professor Lee Silvi, Director  
Fire Science Technology program  
440.525.7252 • [lsilvi@lakelandcc.edu](mailto:lsilvi@lakelandcc.edu)  
[lakelandcc.edu/firesafety](http://lakelandcc.edu/firesafety)



**First Semester:**

CHEM 1050.....	Chemistry in the Everyday World.....	3
<b>OR</b>		
PSCI 1400.....	Introduction to Meteorology	
FIRE 1100.....	Introduction to Fire and Emergency Services.....	3
ENGL 1110*.....	English Composition I (A).....	3
<b>OR</b>		
ENGL 1111.....	English Composition I (B)	
FIRE 1260.....	Fire Prevention Practice.....	3
FIRE 1350.....	Public Sector Community Relations and Customer Service..	2
FYEX 1000.....	First Year Experience.....	1
Choose any course(s) from the Mathematics Electives list**.....		3
		<b>18</b>

**Second Semester:**

FIRE 1120.....	Fire Organization and Administration.....	2
FIRE 1290.....	Building Construction for Fire and Life Safety.....	3
FIRE 2330.....	Combustion Processes and Fire Behavior.....	2
POLS 2100.....	State and Local Government.....	3
Choose course(s) from the Natural and Physical Science Electives list.**.....		3
Choose course(s) from the Technical Electives list.....		2
		<b>15</b>

**Third Semester:**

COMM 1050***.....	Fundamentals of Public Speaking.....	2
<b>OR</b>		
COMM 1150.....	Fundamentals of Interpersonal Communication	
FIRE 1170.....	Fire Protection and Detection Systems.....	2
FIRE 2205.....	Fire Service Hydraulics.....	2
FIRE 2210.....	Public Sector Supervision and Leadership.....	2
FIRE 2280.....	Fireground Strategy and Tactics.....	3
Choose course(s) from the Social and Behavioral Science Electives list.....		3
Choose course(s) from the Technical Electives list.....		3
		<b>17</b>

**Fourth Semester:**

FIRE 2200.....	Fire Investigation Methods.....	3
FIRE 2340.....	Hazardous Materials Operations and Command.....	3
FIRE 2390.....	Fire Field Service Seminar.....	2
<b>OR</b>		
FIRE 2490.....	Fire Service Problem Analysis and Solution	
FIRE 2380.....	Emergency Services Safety and Survival.....	2
PHOT 1100.....	Basic Photography.....	3
<b>OR</b>		
PHOT 1105.....	Basic Photography' Digital	
<b>OR</b>		
Choose course(s) from the Arts and Humanities Electives list.....		3
Choose course(s) from general electives.....		3
		<b>16</b>
<b>Program Total:</b>		<b>66</b>

\*English course selection is based on placement test results (ENGL 1111 is 4 credits, only 3 credits apply to the degree).

\*\*Students planning to transfer to a four-year college should take a sequence of math and/or science as advised by their counselor.

\*\*\*Students may substitute either COMM 1000 or COMM 1100. One of these 3 credit courses may be required for students transferring to a four-year college.



**Technical Electives: minimum 5 credits**

BUSM 2380.....	Training Skills and Techniques.....	3
EMGT 1000.....	Introduction to Emergency Management.....	3
EMTS 1010.....	Emergency Medical Technician-Basic.....	7
<b>OR</b>		
EMTS 1050.....	Emergency Medical Technician-Refresher.....	2
EMTS 2011.....	Paramedic Beginner.....	12
EMTS 2021.....	Paramedic Intermediate A.....	4
EMTS 2031.....	Paramedic Intermediate B.....	4
EMTS 2041.....	Paramedic Advanced.....	4
FIRE 1150.....	Firefighter Orientation.....	1
FIRE 1340.....	Hazardous Materials for First Responders.....	1
FIRE 1800.....	Fire Science Guided Study.....	1-4
FIRE 2150.....	Advanced Firefighter.....	3
PHOT 2100.....	Forensic Photography.....	3
PHOT 2200.....	Surveillance Photography.....	2

**Mathematics Electives: minimum 3 credits**

MATH 1330.....	Statistics for the Health Sciences.....	3
MATH 1600.....	Survey of College Mathematics.....	3
MATH 1650.....	College Algebra.....	4
MATH 2130.....	Business Statistics I.....	3
PHIL 2600.....	Logic.....	3
Other courses as approved in advance by the program director		

**Natural and Physical Science Electives: minimum 3 credits**

CHEM 1050.....	Chemistry in the Everyday World.....	3
CHEM 1100.....	Elementary Chemistry.....	4
GEOL 1100.....	Introduction to Physical Geology.....	4
GEOL 1200.....	Introductory Historical Geology.....	4
PHYS 1500.....	Astronomy.....	4
PSCI 1100.....	Conceptual Physical Science.....	4
PSCI 1300.....	Earth Science.....	3
PSCI 1400.....	Introduction to Meteorology.....	3
Other courses as approved in advance by the program director.		

**Arts and Humanities Electives: minimum 3 credits**

ARTS 1120, 2220, 2230; ENGL 2250, 2260, 2280, 2290; HUMX 1100, 1200; MUSC 1200, 1215, 1800, 2200, 2250; PHIL 1500, 2000; PHOT 1000

**Social and Behavioral Sciences Electives: minimum 3 credits**

ANTH 1160; ECON 1150, 2500, 2600; GEOG 1500, 1600, 2500; HIST 1150, 1250, 2150, 2250; POLS 1300, 2500; PSYC 1500; SOCY 1150

**Fire Science Technology Certificate (6401)**

**NOTE:** This program is designed for both in-service and pre-service students.

FIRE 1100.....	Introduction to Fire and Emergency Services.....	3
FIRE 1120.....	Fire Organization and Administration.....	2
FIRE 1170.....	Fire Protection and Detection Systems.....	2
FIRE 1260.....	Fire Prevention Practice.....	3
FIRE 1290.....	Building Construction for Fire and Life Safety.....	3
FIRE 1350.....	Public Sector Community Relations and Customer Service..	2
FIRE 2200.....	Fire Investigation Methods.....	3
FIRE 2205.....	Fire Service Hydraulics.....	2
FIRE 2210.....	Public Sector Supervision and Leadership.....	2
FIRE 2280.....	Fireground Strategy and Tactics.....	3
FIRE 2330.....	Combustion Processes and Fire Behavior.....	2
FIRE 2340.....	Hazardous Materials Operations and Command.....	3

**Certificate Total: 30**

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit [ln.lakelandcc.edu/go/ge/?g=6401](http://ln.lakelandcc.edu/go/ge/?g=6401).

## Fire Science Technology

To further your education, Lakeland's Holden University Center offers a variety of bachelor's degree programs from a number of four-year colleges and universities offering you the opportunity to *stay here and go far!* Visit [lakelandcc.edu/uc](http://lakelandcc.edu/uc) to explore your options.



Curriculum and program requirements are subject to change. Find the most up-to-date information in the college catalog, available on the website at [lakelandcc.edu](http://lakelandcc.edu).



### Quality Education

Lakeland prepares you for a high-demand career or for transfer to a four-year college or university. Professors at Lakeland are experts in their fields with real-world experience. Small class sizes allow for personalized attention.



### Affordable Tuition

Save thousands on your college education. Lakeland's tuition is about one-third the cost of most four-year schools. Financial assistance is available, including federal and state grants, scholarships, loans, and work study employment.



### Convenience

Lakeland offers convenient day, evening and weekend class times, and a growing number of online courses. The main campus in Kirtland is only 20 miles northeast of Cleveland. Classes are also offered in Madison.



### Focus on Students

Lakeland offers a variety of student services to help you succeed, such as counseling, tutoring, wireless computer labs, career services, free parking, and affordable child care.



### Accreditation

Lakeland Community College is accredited through the Higher Learning Commission (HLC) and participates in the Academic Quality Improvement Program (AQIP). The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413, phone: 800.621.7440, [hlcommission.org](http://hlcommission.org).

**Lakeland**  
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