

# 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  
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[lakelandcc.edu/firesafety](http://lakelandcc.edu/firesafety)



## Fire Science Technology (9640)

### Associate of Applied Science Degree

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.

Lakeland's Fire Science Technology program meets the needs of today's career and volunteer firefighters, pre-service students, and business and industry personnel having an interest in fire safety and protection. Fire science courses reflect the philosophies and techniques of today's fire service leaders.

The Fire Science Technology degree is internationally accredited by the International Fire Service Accreditation Congress (IFSAC). Additionally, Lakeland is recognized and listed by the National Fire Academy - Fire and Emergency Services Higher Education Program.

All core Fire Science Technology courses are scheduled for online delivery, which is available 24 hours a day, 7 days a week. Students living a distance from Lakeland may take the fire science courses online, complete other courses such as English and social science at a college closer to home, and still receive their Fire Science Technology degree from Lakeland Community College.

**A certificate is also available.**

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

Pre-service students must take FIRE 2390 Fire Field Service Seminar







In-service students must take FIRE 2490 Fire Service Problem Analysis

**NOTE:** Many Fire Science Technology (FIRE) courses are scheduled on an alternating basis, therefore, not all FIRE courses are offered every academic year. Contact the Counseling Office or fire science program director for scheduling details and advice.





Distance learning students only should consult an academic counselor regarding possible course substitutions for CHEM 1050 Chemistry in the Everyday World and PHOT 1100 Basic Photography/PHOT 1105 Basic Photography - Digital.

Prior to course selections, students who may transfer to another college upon completing their Lakeland degree should consult an academic counselor regarding transfer courses that are part of the Ohio (Fire Science) Transfer Assurance Guide.





**NOTE:** Students planning to transfer to a four-year college are encouraged to take ENGL 1120 English Composition II in addition to or as part of the following requirements.

Course	Title	Credit Hours
<b>First Semester</b>		
CHEM 1050 or PSCI 1400	Chemistry in the Everyday World or Introduction to Meteorology	3
FIRE 1100	Introduction to Fire and Emergency Services	3
ENGL 1110 or ENGL 1111	English Composition I (A) <sup>1</sup> or English Composition I (B)	3
FIRE 1260	Fire Prevention Practice 	3
FIRE 1350	Public Sector Community Relations and Customer Service 	2
FYEX 1000	First Year Experience	1
Select any course(s) from the Mathematics Electives list <sup>2</sup>		3
	Credit Hours	18
<b>Second Semester</b>		
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
Select course(s) from the Natural and Physical Science Electives list <sup>2</sup>		3
Select course(s) from the Technical Electives list 		2
	Credit Hours	15


### Third Semester

COMM 1050 or COMM 1150	Fundamentals of Public Speaking <sup>3</sup> or Fundamentals of Interpersonal Communications	2
FIRE 1170	Fire Protection and Detection Systems 	2
FIRE 2205	Fire Service Hydraulics 	2
FIRE 2280	Fireground Strategy and Tactics 	3
Select course(s) from the Social and Behavioral Science Electives list		3
Select course(s) from the Technical Electives list 		3
Credit Hours		15















### Fourth Semester

FIRE 2200	Fire Investigation Methods 	3
FIRE 2340	Hazardous Materials Operations and Command 	3
FIRE 2390 or FIRE 2490	Fire Field Service Seminar  or Fire Service Problem Analysis	2
FIRE 2380	Emergency Services Safety and Survival 	2
Select one of the following:		3
GEOG 1400	Mapping Technologies	
GEOG 1700	Map Design and Interpretation	
Select course(s) from general electives		
Select one of the following:		3
PHOT 1100	Basic Photography	
PHOT 1105	Basic Photography - Digital	
Course(s) from the Arts and Humanities Electives list		
Credit Hours		16
Total Credit Hours		64

- <sup>1</sup> English course selection is based on placement test results (ENGL 1111 English Composition I (B) is 4 credits, only 3 credits apply to the degree).
- <sup>2</sup> Students planning to transfer to a four-year college should take a sequence of math and/or science as advised by their counselor.
- <sup>3</sup> Students may substitute either COMM 1000 Effective Public Speaking or COMM 1100 Effective Interpersonal Communications. One of these 3 credit courses may be required for students transferring to a four-year college.

 This course is designated as a technical course in the program. Students must earn a 'C' grade or higher in the course to fulfill the college's graduation requirements policy.

## Electives

Course	Title	Credit Hours
<b>Technical Electives</b>		
BUSM 2380	Training Skills and Techniques 	3
EMGT 1000	Introduction to Emergency Management 	3
EMTS 1010 or EMTS 1050	Emergency Medical Technician-Basic  Emergency Medical Technician- Refresher	7
EMTS 2011	Paramedic Beginner 	13
EMTS 2021	Paramedic Intermediate A 	5
EMTS 2031	Paramedic Intermediate B 	5
EMTS 2041	Paramedic Advanced 	5
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
FIRE 2210	Public Sector Supervision and Leadership 	2
PHOT 2100	Forensic Photography 	3
PHOT 2200	Surveillance Photography 	2



<b>Mathematics</b>		
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	4
PHIL 2600	Logic	3
Other courses as approved in advance by the program director		
<b>Natural and Physical Science</b>		
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		
<b>Arts and Humanities</b>		
ARTS 1120	Art Appreciation	3
ARTS 2220	Survey of Art I	3
ARTS 2230	Survey of Art II	3
ENGL 2250	Survey of American Literature I	3
ENGL 2260	Survey of American Literature II	3
ENGL 2280	Survey of British Literature I	3
ENGL 2290	Survey of British Literature II	3
HUMX 1100	Introduction to Humanities	3
HUMX 1200	The American Experience in the Arts	3
MUSC 1200	Music Appreciation	3
MUSC 1215	World Music	3
MUSC 1800	Popular Music: Rock, Jazz, Country, and Hip-Hop	3
MUSC 2200	Music History and Literature I	3
MUSC 2250	Music History and Literature II	3
PHIL 1500	Introduction to Philosophy	3
PHIL 2000	Comparative Religion	3
PHOT 1000	History of Photography	3
<b>Social and Behavioral Sciences</b>		
ANTH 1160	Introduction to Cultural Anthropology	3
ECON 1150	Basic Economics	3
ECON 2500	Principles of Macroeconomics	3
ECON 2600	Principles of Microeconomics	3
GEOG 1500	Introduction to Geography	3
GEOG 1600	World Regional Geography	3
GEOG 2500	World Cultural Geography	3
HIST 1150	Western Civilization I: Antiquity Through the Reformation	3
HIST 1250	Western Civilization II: Age of Revolution Through the Present	3
HIST 2250	U.S. History: Reconstruction to the Present	3
POLS 1300	U.S. National Government	3
POLS 2500	Modern Political Ideologies	3
PSYC 1500	Introduction to Psychology	3
SOCY 1150	Principles of Sociology	3

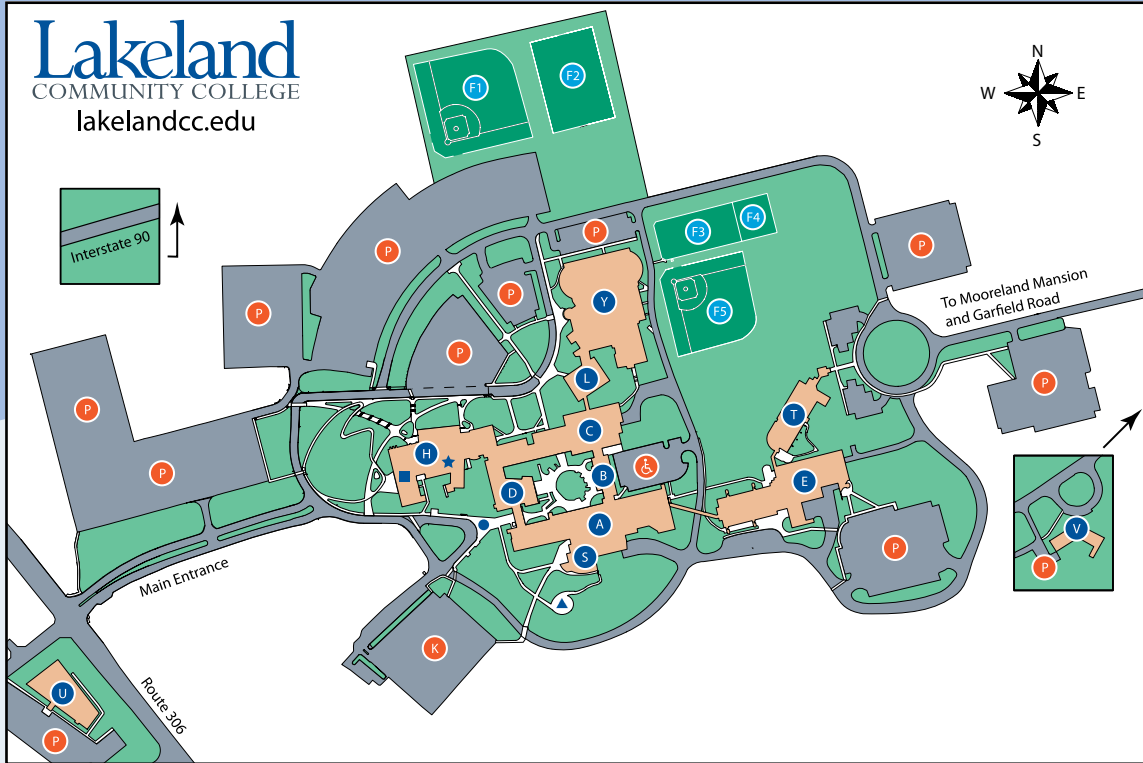
## Fire Science Technology Certificate (6401)

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

Course	Title	Credit Hours
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
Total Credit Hours		30

# NOTES:





**CAMPUS MAP**

- |  |                                     |                                    |
|--|-------------------------------------|------------------------------------|
| <b>A</b> A-Building/<br>Student Service Center | <b>F3</b> Tennis Courts             | <b>U</b> Holden University Center  |
| <b>B</b> B-Building                            | <b>F4</b> Multi-Purpose Court       | <b>V</b> Mooreland Mansion         |
| <b>C</b> C-Building                            | <b>F5</b> Softball Field            | <b>Y</b> Athletic & Fitness Center |
| <b>D</b> D-Building                            | <b>H</b> H-Building                 | ● Clocktower                       |
| <b>E</b> E-Building                            | <b>K</b> Faculty Staff Lot          | ★ Dental Hygiene Clinic            |
| <b>F1</b> Baseball Field                       | <b>L</b> Teaching Learning Center   | ♿ Handicap Parking                 |
| <b>F2</b> Soccer Field                         | <b>P</b> Parking                    | ■ HIVE                             |
|  | <b>S</b> S-Building/Breakers Dining | ▲ Mind Ladders                     |
|  | <b>T</b> T-Building                 |                                    |

- Quality Education**  
Professors at Lakeland are experts in their fields with real-world experience. Lakeland prepares you for a high-demand career or for transfer to a four-year college or university. Access to bachelor's and graduate degrees is available on campus from partner institutions through Lakeland's Holden University Center (lakelandcc.edu/uc).
- Affordable Tuition**  
Lakeland's tuition is about one-third the cost of most four-year schools. More than 50 percent of Lakeland students receive some form of financial assistance (lakelandcc.edu/tuition).
- Convenience**  
Lakeland offers convenient day, evening, weekend and online courses (lakelandcc.edu/schedule).
- Focus on Students**  
Lakeland offers a variety of student services to help you succeed, such as counseling, tutoring, computer labs, career services, free parking and affordable child care.

**Opportunity** starts **HERE**

**Visit** us on campus or online. Call 440.525.7900, email [recruitmentcenter@lakelandcc.edu](mailto:recruitmentcenter@lakelandcc.edu) or visit [lakelandcc.edu/visit](http://lakelandcc.edu/visit) for a campus tour.

**Apply** online: [lakelandcc.edu/apply](http://lakelandcc.edu/apply)

**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).