

# LAKE SUPERIOR STATE UNIVERSITY

## School of Criminal Justice and Fire Science

Lake Superior State University's fire science program was the first Bachelor of Science program to be internationally accredited by the International Fire Service Accreditation Congress (IFSAC), and it is offered entirely through distance learning for aspiring and current fire service professionals.

### A New Way of Learning

Lake Superior State University has partnered with The College Network® to provide learners with a better way to earn their degrees. Use The College Network's Comprehensive Learning Module™ program to earn college credit for general education and elective courses by passing end-of-course college equivalency exams—saving time and money. Comprehensive Learning Modules are available online and enable learners to complete coursework at an independent pace. Learners then complete their degree programs through distance learning with Lake Superior State University.

### Fire Science Program Overview

#### Associate of Science

The associate's degree in fire science provides a solid foundation for aspiring and current fire service professionals seeking entry-level positions with fire departments and select government agencies. The associate's degree in fire science is also the first step toward earning a Bachelor of Science in Fire Science from Lake Superior State University.

#### Career Options

- Firefighter
- Fire Safety Officer

#### Bachelor of Science

The bachelor's degree in fire science provides learners with the educational background necessary for advancement to higher ranks and supervisory levels. Learners in this program will follow the fire science generalist-non certification track and will be prepared for careers in the areas of fire protection, education, fire equipment service/supply, and emergency planning.

#### Career Options

- Firefighter
- Fire Safety Officer
- Fire Protection Systems Designer
- Hazardous Materials Specialist
- Fire Officer/Chief Officer
- Emergency Planner

- IFSAC-accredited program
- Regionally accredited university
- Convenient blended-learning format
- Complete at your convenience
- No classroom attendance required
- Previous National Fire Protection Association (NFPA) certifications may be awarded credit after completion of Lake Superior State University evaluation
- Earn up to 47 credit hours for the **associate's degree** program through test-out and transfer credits
- Earn up to 94 credit hours for the **bachelor's degree** program through test-out and transfer credits
- Earn credit for National Fire Academy (NFA) CEUs
- Financing is guaranteed for The College Network portion of the program



## An Educational Partnership

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Learners begin with online access to The College Network's® Comprehensive Learning Module™ program. Comprehensive Learning Modules enable learners to earn college credit for general education and prerequisite courses by passing end-of-course college equivalency exams, such as CLEP® and DSST®. Credits earned can then be transferred to Lake Superior State University, where learners will complete their degrees through distance learning.

Associate's degree candidates must earn 15 of their final 30 credit hours with Lake Superior State University. Bachelor's degree candidates must earn at least 30 credit hours through Lake Superior State University. Bachelor's degree candidates also must complete at least 50% of their department-required 300/400 level courses with the university.

## Program Progression

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The associate of science and bachelor of science programs are divided into two phases:

### Phase I

You may complete many of your general education courses by using The College Network's Comprehensive Learning Modules in Phase I before progressing to Phase II, or you may choose a "dual progress" format.

"Dual progress" will allow you to complete The College Network's Comprehensive Learning Modules while taking distance courses from Lake Superior State University. Although it is not required, we encourage you to complete this program in a "dual progress" format to help you reach graduation at a much quicker pace.

### Phase II

During Phase II, you will apply for admission into the Lake Superior State University fire sciences degree program as a degree-seeking transfer student. The start dates for this program are in January and September. Upon acceptance into Lake Superior State University, you will complete your remaining courses through distance learning and earn your degree. The application for admission can be accessed at [www.lssu.edu/admissions/applying.php](http://www.lssu.edu/admissions/applying.php).

## Degree Requirements

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<b>Associate of Science in Fire Science</b>	<b>62 credit hours total</b>
General Education and Elective Requirements	21 credit hours
Support Course and Elective Requirements	17 credit hours
Major Requirements	24 credit hours
<b>Bachelor of Science in Fire Science</b>	<b>124 credit hours total</b>
General Education Requirements	36 credit hours
Electives*	43 credits hours
Major Requirements and Major Electives	45 credit hours

\*Licensed paramedics will be awarded 20 credit hours toward electives.



Course	AS Degree Requirement	BS Degree Requirement	BS Elective (24 CR Req)
<b>FIRE 101 Introduction to Fire Science 3 CR</b> Survey of the history and philosophy of fire protection. Examines present fire protection problems and future challenges, public fire protection agencies, firefighting equipment, and extinguishing agents. Special emphasis is placed on emergency responders' safety and hazardous material recognition.	✓	✓	
<b>FIRE 111 Hazardous Materials 3 CR</b> Principles of combustion; examination of theoretical and practical aspects of combustion. Investigation of physical and chemical properties of substances which may harm responders, the general public, and the environment.	✓		✓
<b>FIRE 201 Fire Protection Construction Concepts 3 CR</b> Impact of building construction concepts and methods on firefighting tactics and strategy, decision making, and safety. Presentation of the ramifications of hostile fire on construction and building materials.	✓		✓
<b>FIRE 204 Fire Protection Hydraulics and Pumps 3 CR</b> The application of mathematics and physics laws to properties of water, force, pressure, and flow velocities. Emphasis: applying principles of hydraulics to fire protection problems, use of water supply sources, and needs; examining fire department apparatus testing, inspection, and maintenance; dealing with apparatus specifications and requirements. Prerequisites: MATH086 or equivalent/satisfactory score on ACT or placement exam and FIRE101 or 102 or BIOL102, 140, or 286 as a pre- or co-requisite.	✓	✓	
<b>FIRE 206 Fire Protection Systems, Equipment, and Industrial Fire Protection 3 CR</b> Use and water supply needs of sprinkler and stand pipe systems and devices, fixed detection and control systems and devices, fire department testing, inspection, and maintenance. Alarm centers, warning devices, and safety considerations are covered along with fire flow calculations and risk assessment. Examination of fire and lifestyle hazards in business and industry. Emphasis on managing fire prevention and training private fire brigades. Prerequisites: FIRE101, 111, 204, and MATH086 or equivalent/satisfactory score on ACT or placement exam.	✓	✓	
<b>FIRE 211 Tactics and Strategy 3 CR</b> Utilization of manpower, equipment, and apparatus on the fireground. Emphasis: pre-fire planning, fireground decision making. Implementing tactics and disaster planning. Students will use fire simulation programs and interactive technology to apply and implement the principles covered in didactic instruction. Pre- or co-requisites: Either FIRE101 or 102 and 204 as a pre- or co-requisite.	✓		✓
<b>FIRE 300 Special Topics, 3–6 CR</b>			✓
<b>FIRE 301 Code Enforcement Inspection and Fire Prevention 3 CR</b> An introduction to fire inspection procedures and inspection techniques as related to building construction, fire load, fire protection systems, plans, and the storage of hazardous materials. A study of safety code enactment, formulation, and its relation to fire prevention, and public education efforts and responsibilities of the fire service. Prerequisites: Pre-fire science core (PFS), FIRE111, 205, and junior standing.		✓	
<b>FIRE 312 Hazardous Materials Management 4 CR</b> Covers requirements of federal law dealing with hazardous incidents, and waste management with reference to OSHA, NIOSH, NFPA, and ACGIH standards. This class can certify select students at the levels of general hazard awareness, emergency response operations, and hazardous waste worker. Prerequisites: Pre-fire science core (PFS), FIRE111 or CHEM116, and junior standing.			✓
<b>FIRE 315 Company Level Supervision and Management 3 CR</b> This course is intended to provide a comprehensive overview of supervision and administration skills necessary to function as a company officer, which would include but not be limited to planning, budgeting, time management, training, emergency incident command, and facility maintenance and care. Pre- or co-requisites: Pre-fire science core (PFS), FIRE101, 111, 204, 206, and 211.	✓	✓	
<b>FIRE 400 Special Topics, 3–6 CR</b>			✓
<b>FIRE 401 Senior Seminar 3 CR</b> Seminar and independent study course with individual student guidance by faculty on selected research topics in fire science. Prerequisites: Pre-fire science core (PFS) and senior standing.		✓	
<b>FIRE 402 Fire Service and the Law 3 CR</b> Capstone course. Introduces the judicial system in which the fire service operates. Covers civil action, liability, labor, prevention, safety (OSHA), and environmental law. Prerequisites: Pre-fire science core (PFS) and senior standing.			✓
<b>FIRE 403 Fire Science Internship 3 CR</b> Fire science internship with an agency. Credit is based on 34 hours of field work per credit hour (102 hours). Students must make application by the ninth week of the previous semester. Prerequisites: Pre-fire science core (PFS), FIRE220, and senior standing.			✓
<b>CJUS 103 Introduction to Terrorism and Homeland Security 3 CR</b> This course will provide learners with historical view of terrorism, its origins, methodology, and ideology. It will also provide the learner with knowledge of specific events of the 20th century related to terrorism that have formed modern terrorism. Finally it will discuss the worldwide effort on deterring and discovering terrorist activities.			✓
<b>CJUS 204 Domestic and International Terrorism 3 CR</b> This course will examine the history and modern trends of Domestic, International and Transnational Terrorism. This will include the profile of terrorist recruits, the structure and dynamics of terrorist organizations, and government sponsored terrorism. The amotivation of various organizations and their methods of terrorist violence, as well as, their justification of violent acts will be discussed. Antiterrorism and Counterterrorism measures will be analyzed.			✓
<b>CJUS 321 Ethical Issues in Public Safety 3 CR</b> Consideration of selected issues in public safety organizations. Emphasis on the role of practitioners and relations with the various publics. Students will be given moral dilemmas and will consider their individual value system.			✓
<b>CJUS 325 Homeland Security and Emergency Services 3 CR</b> Investigates the impact of the federal homeland security apparatus on emergency response organizations at the state and local level. Includes a historical review of "homeland security" measures beginning in WWI and through WWII and the Korean War. Especially reviews the security situation during the Cold War. The course deals with the federal agencies usually not associated with homeland security, such as DEA, ATF, the military departments, FAA, CDC, the National Guard Bureau, and the DOD.			✓
<b>CJUS 341 Fire Cause and Arson Investigation 3 CR</b> Determination of fire cause and origin and explosion causes. Prevention, documentation, and legal aspects examined. Prerequisite: Pre-fire science core (PFS).	✓		✓
<b>CJUS 345 Statistics and Design for Public Safety 4 CR</b> Introduction to research methodology and designs utilized in public safety. Includes sampling, descriptive statistics, inferential statistics, sources of error in presenting findings, and preparing and reading research reports. Prerequisites: Pre-criminal justice core (PCJ), junior standing in criminal justice or fire science, and MATH086 or equivalent/satisfactory score on ACT or placement exam.		✓	

## Admissions Criteria

Once your application is complete, Lake Superior State University will evaluate it and arrive at an admission decision.

1. The application can be accessed at [www.lssu.edu/admissions/applying.php](http://www.lssu.edu/admissions/applying.php).
2. Have a GPA of 2.0 or higher on a 4.0 scale. (Note: Prospective students with GPAs lower than 2.0 will be considered on an individual basis.)
3. Request official transcripts from all colleges and universities previously attended and have them mailed to Lake Superior State University's Admissions Office for an official transcript evaluation. (Lake Superior State University will not accept transcripts from The College Network®.)

Applications to the university and official transcripts should be sent to:

Lake Superior State University  
Office of Admissions  
650 W. Easterday Ave.  
Sault Ste. Marie, MI 49783

Reminder: Applications will be processed and an evaluation of transfer credit will be made as soon as all required materials are on file in the Admissions Office.

The start dates for the fire science program are in January and September.

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For questions regarding this program, call The College Network® toll free at 1-877-256-5327 to speak with a Program Advisor.

Fire Science



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The program information in this publication is current at the time of printing.  
The most up-to-date information is available at [www.collegenetwork.com](http://www.collegenetwork.com),  
or you can speak with a Program Advisor at 1-877-256-5327.

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