

LAKE SUPERIOR STATE UNIVERSITY



Founded in 1946.

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, Inc. to provide learners with a better way to earn their degrees. Use The College Network's Comprehensive Learning Module (CLM) program to earn college credit for general education and elective courses by passing end-of-course college equivalency exams (up to 53 credits)—saving time and money. CLMs 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 track and will be prepared for careers in the areas of fire protection, education, fire equipment service/supply, and emergency planning. For aspiring and current firefighters pursuing a career with a fire department, a minor in paramedic technology is strongly recommended. However, learners may choose a minor that is more applicable to their individual career ambitions, such as general business, management, computer technology, public administration, or environmental science.

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 46 credit hours for the **associate's degree** program through test-out and transfer credits
- Earn up to 92 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



fire science

An Educational Partnership

Learners begin with online access to The College Network's Comprehensive Learning Module (CLM) program. CLMs 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 16 of their final 20 credit hours with Lake Superior State University. Bachelor's degree candidates must earn at least 32 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

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 CLMs 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 CLMs 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/transfer.php.

Degree Requirements

Associate of Science in Fire Science	62 credit hours total
General Education and Elective Requirements	18 credit hours
Support Course and Elective Requirements	17 credit hours
Major Requirements	24 credit hours
Bachelor of Science in Fire Science	124 credit hours total
General Education Requirements	33 credit hours
Support Course Requirements	7 credit hours
Minor or Approved Concentration Requirements	20 credit hours
Elective Requirements*	15 credits hours
Major Requirements	49 credit hours

*Eight (8) credit hours must be completed in the areas of social science, natural science, or mathematics.

Course Descriptions

Associate of Science in Fire Science Major Requirements	
<p>FIRE 101 Introduction to Fire Science 3 CR 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.</p>	<p>FIRE 206 Fire Protection Systems, Equipment, and Industrial Fire Protection 3 CR 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.</p>
<p>FIRE 111 Hazardous Materials 3 CR 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.</p>	<p>FIRE 211 Tactics and Strategy 3 CR 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.</p>
<p>FIRE 201 Fire Protection Construction Concepts 3 CR 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.</p>	<p>FIRE 315 Company Level Supervision and Management 3 CR 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.</p>
<p>FIRE 204 Fire Protection Hydraulics and Pumps 3 CR 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.</p>	<p>CJUS 341 Fire Cause and Arson Investigation 3 CR Determination of fire cause and origin and explosion causes. Prevention, documentation, and legal aspects examined. Prerequisite: Pre-fire science core (PFS).</p>

Bachelor of Science in Fire Science Major Requirements	
These courses <u>plus</u> the courses listed above are required for the bachelor of science degree.	
<p>FIRE 197 Physical Fitness for Public Safety 1 CR This course provides physical fitness and skills necessary for the law enforcement and fire science certification students. Fire science students take the course a semester before FIRE220.</p>	<p>CJUS 345 Statistics and Design for Public Safety 4 CR 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.</p>
<p>FIRE 220 Fire Science Certification 4 CR An application of the principles of fire attack and strategy through the use of exercises and computer-generated simulations. Hazmat incident analysis and other major disaster case studies are used in this class. Prerequisites: FIRE101, 111, 197, and 204. Co-requisites: FIRE205 and 211. Completion of specialized medical examination.</p>	<p>FIRE 401 Senior Seminar 3 CR 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.</p>
<p>FIRE 301 Code Enforcement Inspection and Fire Prevention 3 CR 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.</p>	<p>FIRE 402 Fire Service and the Law 3 CR 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.</p>
<p>FIRE 312 Hazardous Materials Management 4 CR 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.</p>	<p>FIRE 403 Fire Science Internship 3 CR 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.</p>

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/transfer.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.

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

fire science



LSS-FSD-700 10/10/08

The program information in this publication is current at the time of printing. The most up-to-date information is available at www.college-net.com, or you can speak with a Program Advisor at 1-877-CLM LEARN (256-5327).