

# FST - Fire Service Technology

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## Courses

### FST 101 Fire Cadet Fundamentals

**2 Credits. 1 Lecture Hour. 2 Lab Hours.**

A course that prepares students mentally and physically for the State of Ohio Firefighter 1 & 2 course. Topics include: fire ground fundamentals, self discipline, procedures, concepts, equipment, tools, and safety related information. The course location is Station 2 on Este Avenue in Cincinnati.

Prerequisites: Instructor Consent  
Instructor Consent Required

### FST 103 Evolution of the Fire Service

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on the growth of the fire service from its creation through the 21st century. Topics include: changes in suppression methods, building codes, and rescue techniques; administrative philosophies; and personnel behaviors.

Prerequisites: None

### FST 105 Firefighter Physical Preparedness

**2 Credits. 1 Lecture Hour. 2 Lab Hours.**

A course on physical fitness in the fire service, using American Council on Exercise (ACE) and Cooper Institute standards. Topics include: body mechanics, cardiovascular conditioning, flexibility, functional strength, and how to avoid common fire service injuries. The course location is Station 2 on Este Avenue in Cincinnati.

Prerequisites: Instructor Consent  
Instructor Consent Required

### FST 120 Fire Behavior and Combustion

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on theories and fundamentals of how and why fires start and spread, and how fires are controlled. Topics include: the chemistry of fire, combustion and heat transfer, stages of fire growth, toxic gases and smoke, and extinguishing agents.

Prerequisites: Placement into ENG 101A, and MAT 093 or MAT 131A or appropriate Math placement  
Ohio Transfer Assurance Guide Approved

### FST 123 Principles of Emergency Services

**3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A course on fire protection services, including philosophy, history, and career opportunities in related fields. Topics include: fire chemistry and physics, fire protection systems, and an introduction to fire strategy and tactics.

Prerequisites: Placement into ENG 101A  
Ohio Transfer Assurance Guide Approved

### FST 126 Fire Protection Systems

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on design features and operation of fire alarm systems. Topics include water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection, and portable fire extinguishers.

Prerequisites: Placement into ENG 101A  
Ohio Transfer Assurance Guide Approved

### FST 129 Fire Prevention

**3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A course on fundamental concepts of fire prevention. Topics include: history, philosophy, organization, and operation of a fire prevention bureau; use and application of codes and standards; plan review; fire inspections; fire and life safety education; and fire investigation.

Prerequisites: Placement into ENG 101A  
Ohio Transfer Assurance Guide Approved

### FST 131 Firefighter Professional 1

**6 Credits. 4 Lecture Hours. 6 Lab Hours.**

A course covering NFPA 1001 Firefighter 1 and 2 objectives. Topics include: ladders, personal protection clothing, self-contained breathing apparatus (SCBA), fire extinguishers, search and rescue, ropes and knots, and hoses and nozzles. Students must successfully complete FST 131 and FST 132 and earn a passing score on the state firefighter exam to obtain Ohio Firefighter II certification. The course location is Station 2 on Este Avenue in Cincinnati and other off-campus sites.

Prerequisites: FST 101 and FST 105 and FST 136, and instructor consent  
Instructor Consent Required

### FST 132 Firefighter Professional 2

**5 Credits. 3 Lecture Hours. 6 Lab Hours.**

A continuation of FST 131, covering NFPA 1001 Firefighter 1 and 2 objectives. Topics include: fire streams and foam, fire control, fire protection systems, and pre-incident surveys. Students who successfully complete this course are eligible to take the Ohio Firefighter's Exam. Students who are successful on the state exam are also eligible for national (PROBOARD) certification. Some course activities are located at Station 2 on Este Avenue in Cincinnati.

Prerequisites: FST 131 and instructor consent  
Instructor Consent Required

### FST 136 Emergency Vehicle Operator

**1 Credit. 0 Lecture Hour. 2 Lab Hours.**

A course on safe driving practices while responding in emergency vehicles. Topics include: techniques for safe operation, post-collision analysis, and unsafe practices during emergency response. Students must have a valid driver's license. The course location is Station 2 on Este Avenue in Cincinnati.

Prerequisites: Placement into ENG 101A and Instructor consent and valid driver's license  
Instructor Consent Required

### FST 161 Fire Officer 1

**4 Credits. 4 Lecture Hours. 0 Lab Hour.**

A course on preparing for the role of company officer, using NFPA 1021 Fire Officers Professional Qualifications Level 1 objectives. Topics include: human resource management, community and government relations, inspections, investigations, emergency service delivery, and safety.

Prerequisites: ENG 101, and instructor consent  
Instructor Consent Required

**FST 162 Fire Officer 2**

**4 Credits. 4 Lecture Hours. 0 Lab Hour.**

A course that meets the job performance requirements of National Fire Protection Association (NFPA) 1021 - Managing Fire Officer, and follows the leadership standards published by the International Association of Fire Chiefs in the Officer Development Handbook.

Prerequisites: FST 161, and instructor consent

Instructor Consent Required

**FST 223 Principles of Fire and Emergency Services Safety and Survival**

**2 Credits. 2 Lecture Hours. 0 Lab Hour.**

A course on the history and basic principles of the national firefighter life safety initiatives, focusing on the need for cultural change throughout the emergency services.

Prerequisites: ENG 101

Ohio Transfer Assurance Guide Approved

**FST 226 Building Construction for Fire Protection**

**3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A course on components of building construction related to firefighter and life safety. Topics include: elements of construction and design of structures in relation to inspecting buildings, pre-planning fire operations, and operating at emergencies.

Prerequisites: ENG 101

Ohio Transfer Assurance Guide Approved

**FST 228 Legal Aspects of the Emergency Services**

**3 Credits. 3 Lecture Hours. 0 Lab Hour.**

A course on legal issues related to emergency services. Topics include: the U.S. legal system; recent court decisions, events, and statutes; the Americans with Disabilities Act; the Family Medical Leave Act; the Fair Labor Standards Act; and HIPAA.

Prerequisites: ENG 101

**FST 258 Rapid Assistance and Self-Rescue Operations**

**2 Credits. 1 Lecture Hour. 3 Lab Hours.**

A course on saving your own life or saving lives of other firefighters. Topics include: MAYDAY, fire ground safety, communications, self awareness, rapid entry team preparedness, and survival techniques.

Prerequisites: FST 132

**FST 265 Fire Service Instructor**

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on techniques for teaching adult learners knowledge and skills required for the Fire Services field, using NFPA 1041 Instructor 1 and 2 objectives. Topics include: domains of learning, learning outcomes and objectives, classroom preparedness, student safety, and legal obligations. Students must have five years experience as a firefighter.

Prerequisites: FST 142 and Instructor consent

Instructor Consent Required

**FST 268 Fire Safety Inspector**

**3 Credits. 2 Lecture Hours. 3 Lab Hours.**

A course on fire safety inspection procedures and responsibilities, using NFPA 1031 objectives. Students who are members of an Ohio Fire Department may take the state exam for Fire Safety Inspector at the end of the course.

Prerequisites: FST 142

**FST 294 Internship 1: Fire Service Technology**

**2 Credits. 1 Lecture Hour. 40 Lab Hours.**

Students seeking an associate's degree participate in an unpaid field learning experience at a fire department. Students must follow the hosting fire department's applicable policies and procedures and keep a daily journal to earn credit. Grades issued are Satisfactory or Unsatisfactory.

Prerequisites: FST 132

Instructor Consent Required