FIRE SCIENCE TECHNOLOGY (FSTR)

Courses

FSTR 100 Fire Fighter I 9 Credits
Preparation to meet the requirements necessary to perform at the first level of progression, as identified in National Fire Protection Association (NFPA) 1001 Firefighter Professional Qualifications.
Terms Typically Offered: Fall.
Fees: Yes.

FSTR 101 Fire Fighter II 3 Credits
Exploration of advanced skills and proficiency in firefighting beyond the Firefighter I level. Further develops strategies and tactics in incident command, operations and leadership.
Prerequisites: FSTR 100 and FSTR 107.
Terms Typically Offered: Spring.

FSTR 102 Principles of Emergency Service Suppression 3 Credits
Introduction to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; laws and regulations affecting the fire service; and basic fire chemistry and physics.
Terms Typically Offered: Fall.

FSTR 103 Fire Behavior and Combustion 3 Credits
Exploration of the theories and fundamentals of how fires start and spread and how they are controlled. Prepares the student to comprehend fire behavior, fire suppression and the processes of combustion.
Terms Typically Offered: Fall.
Fees: Yes.

FSTR 105 Building Construction for Fire Protection 3 Credits
Components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The elements of consideration and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies.
Terms Typically Offered: Spring.

FSTR 106 Fire Prevention 3 Credits
Examination of fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.
Terms Typically Offered: Fall.
Fees: Yes.

FSTR 107 Hazardous Materials Operations Level I 3 Credits
Introduction to hazardous materials incidents, recognizing and identifying hazardous materials, planning response, implementing response procedures, decision making, and continued evaluation at the awareness and operation level.
Corequisites: FSTR 100.
Terms Typically Offered: Fall.
Fees: Yes.

FSTR 109 Occupational Safety and Health for Fire 3 Credits
Introduction to the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include: risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue.
Terms Typically Offered: Spring.

FSTR 151 Driver-Operator 3 Credits
Basic knowledge and skills to safely operate a fire apparatus according to the NFPA professional standard. The course enables students to display and demonstrate knowledge of fire apparatus, operation of apparatus, pumps and pumping, hydraulics calculations, maintenance, and testing.
Terms Typically Offered: Spring.
Fees: Yes.

FSTR 201 Instructional Methodology 3 Credits
Roles and responsibilities of the fire service instructor. Includes oral communication skills; concepts of learning; planning and development of lesson plans, instructional materials, and delivery methods; testing and evaluations; records and reports; and demonstration of instructional abilities. This course prepares the student for Fire Instructor I State Certification.
Terms Typically Offered: Spring.

FSTR 202 Strategy and Tactics 3 Credits
In-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground. Explores the main functions within the ICS system and how they interrelate during an incident.
Terms Typically Offered: Spring.
Fees: Yes.

FSTR 203 Fire Hydraulics and Water Supply 3 Credits
Foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.
Prerequisites: FSTR 105 and MATH 107.
Terms Typically Offered: Fall, Spring.

FSTR 204 Principles of Code Enforcement 3 Credits
Fundamental knowledge of the role of code enforcement in a comprehensive fire prevention program.
Prerequisites: FSTR 102 and FSTR 105.
Corequisites: FSTR 106 and FSTR 209.
Terms Typically Offered: Spring.

FSTR 205 Fire Investigation I 3 Credits
Fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes.
Prerequisites: FSTR 102.
Terms Typically Offered: Fall, Spring.

FSTR 206 Fire Officer Supervision and Leadership 3 Credits
Training to develop a better understanding of the roles and responsibilities of Company Officers (COs) in preparing their company for incident operations. This course is designed to clarify the transition from firefighter to CO and the new roles relating to leadership and safety.
Prerequisites: FSTR 102 and FSTR 202.
Terms Typically Offered: Spring.

FSTR 209 Fire Protection Systems 3 Credits
Features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.
Terms Typically Offered: Spring.
Fees: Yes.

FSTR 252 Fire Investigation II 3 Credits
Advanced technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation, and testifying.
Prerequisites: FSTR 100, FSTR 102, FSTR 103, and FSTR 205.
Terms Typically Offered: Fall, Spring.