

FIRE SCIENCE TECHNOLOGY (FST)

FST 151. Building Construction. 3 Credits.

This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. Prerequisite: FST 155 or permission of division dean.

FST 152. Strategy and Tactics. 3 Credits.

This course provides the principles of fire ground control through utilization of personnel, equipment, and extinguishing agents. Prerequisite: FST 159.

FST 153. Fire Protection Systems. 3 Credits.

This course provides information relating to the 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. Prerequisites: ENG 098, FYE 101, RDG 098, or placement.

FST 154. Hazardous Materials Chemistry. 3 Credits.

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency services. This course may have multiple required VR in person scheduled experiences. Prerequisites: ENG 098, FYE 101, RDG 098, or placement.

FST 155. Principles Emergency Services. 3 Credits.

This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives. This course may have multiple required VR in person scheduled experiences. Prerequisites: ENG 098, FYE 101, RDG 098, or placement.

FST 157. Fire Prevention. 3 Credits.

This course provides fundamental knowledge relating to the field of fire prevention. Topics include history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education; and fire investigation. Prerequisites: ENG 098, FYE 101, RDG 098, or placement.

FST 158. Principles of Firefighter Safety and Survival. 3 Credits.

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. This course may have multiple required VR in person scheduled experiences. Prerequisites: ENG 098, FYE 101, RDG 098, or placement.

FST 159. Fire Behavior and Combustion. 3 Credits.

This course explores the theories and fundamentals of how and why fires start, spread, and are controlled. Prerequisites: ENG 098, FYE 101, RDG 098, or placement.

FST 160. Fire and Emergency Services Administration. 3 Credits.

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer. Prerequisite: FST 155.

FST 161. Legal Aspects of Emergency Services. 3 Credits.

The course will address the Federal, State, and local laws that regulate emergency services and include a review of national standards, regulations, and consensus standards. Prerequisites: ENG 098, FYE 101, RDG 098, or placement.

FST 162. Fire Hydraulics and Water Supply. 3 Credits.

This course provides a 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: FST 155, MAT 092 or MAT 096, or placement.

FST 163. Fire Investigation I. 3 Credits.

This course is intended to provide the student with the 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 firesetter, and types of fire causes. Prerequisites: FST 151, FST 155, FST 159, or permission of division dean.