

FIRE SCIENCE (FIR)

FIR-110 History and Philosophy of the Fire Service (2)

Provides an understanding of where the fire service has come from to better help steer fire service into the future. Instructional units are facilitated through a guided self-study format. Arts & Sciences Elective Code: B

Hours per week: 2.0 lecture

FIR-124 Building Construction (3)

Examines structural reactions to fire. Studies building codes and their relationship to the architectural strength of various designs. Covers how construction and design are key factors when inspecting buildings, preplanning fire operations and functioning at emergencies. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture

FIR-127 Fire Behavior and Combustion (3)

Studies how the chemical and physical aspects of fuels, the combustion process and the products of combustion affect how fire is caused, spread and extinguished. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture

FIR-130 Fire Prevention (3)

Covers the techniques, procedures, regulations and enforcement of codes (fire, building, life safety) in various occupancies. Communication with the property owner on changes to meet code requirements are presented. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture

FIR-146 Firefighting Tactics and Strategy (3)

Studies methods of coordinating personnel, equipment and deploying apparatus on the fire ground. Practical methods of controlling and extinguishing structural and other types of fires are discussed. Includes simulation exercises. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture

FIR-150 Fire Detection and Suppression Systems (3)

Covers the identification of system elements, the proper type for the occupancy as per code, fire department operations at premises, and inspection practices to ensure the system is operating and installed as required. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture

Prerequisite: Take FIR-124. Take FIR-127.

FIR-183 Hazardous Materials Management (3)

Prepares for the state administered Hazardous Materials Operations and Awareness certification exam. Discusses the properties of chemically active substances related to hazardous materials. Identifies and demonstrates techniques, methods and strategies to mitigate haz-mat incidents. Covers state and federal laws as they relate to management of hazardous materials. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture

FIR-199 Firefighter I (8)

Prepares students for the state administered Firefighter I certification exam. Includes basic firefighting tactics, fire behavior, safety, forcible entry, hose handling, ladders, protective clothing, SCBA rescue, ventilation, PPE and additional topics. Requires passing the Firefighter I exam through the Iowa Fire Service Training Bureau to become certified.

Arts & Sciences Elective Code: B

Hours per week: 6.0 lecture, 4.0 lab

Prerequisite: Take FIR-150.

FIR-201 Firefighter II (3)

Continues as the second level of standards-based certification. Focuses on the basic principles of firefighting as they relate to Fire Fighter Professional Qualifications. Covers topics included in the Firefighter I program, and offers certification testing to obtain Firefighter II certification based on NFPA 1001, 2002 edition. Arts & Sciences Elective Code: B

Hours per week: 2.5 lecture, 1.0 lab

Prerequisite: Take FIR-199.

FIR-213 Principles of Emergency Services (3)

Studies fire service nomenclature, career opportunities in fire protection, organization and function of fire protection services, laws and regulations affecting the fire service, and fire departments as part of local government. Includes job shadowing with career firefighters. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture

FIR-250 Fire Apparatus Driver/Operator Pumper (3)

Prepares for certification as an Apparatus Driver Operator-Pumper. Covers the requirements of the NFPA 1002, for driving and maneuvering a fire apparatus in a confined space, restricted/diminished clearance, serpentine and non-emergency and emergency vehicle operations. Arts & Sciences Elective Code: B

Hours per week: 2.0 lecture, 2.0 lab

Prerequisite: Take FIR-199. Take FIR-201.

FIR-280 Instructional Techniques for Fire Service Training (3)

Covers concepts and techniques for conducting periodic company-level or small-unit training. Emphasizes teaching principles applicable to in-service fire and rescue service skills training. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture

FIR-330 Fire Service Company Officer (3)

Studies the company officer's role in the fire department. Examines topics including effective communications, organization and management, resource management, leadership, safety, fire prevention and investigation, and pre-planning. Meets NFPA 1021, Fire Officer I, 2003 edition. Includes lecture with activities and exercises designed to reinforce the topic. Requires completion of written assignments that are designed to meet the requirements of Fire Officer I. Arts & Sciences Elective Code: B

Hours per week: 3.0 lecture

Prerequisite: Take FIR-199.

FIR-400 Emergency Safety and Survival (3)

Introduces the basic principles and history related to national firefighter life safety initiatives. Focuses on the need for cultural and behavioral change across the emergency services. Arts & Sciences Elective Code: B
Hours per week: 3.0 lecture

FIR-924 Honors Project (1)

Allows a qualified honors student to pursue a special concentration of study under the guidance of a faculty member. Requires completion of an honors project contract. May be taken more than once. Arts & Sciences Elective Code: B; Comments: Requires approval of supervising professor and dean
Hours per week: 1.0 lecture

FIR-928 Independent Study (1-3)

Provides readings, papers and basic research or other projects under the individual guidance of a staff member. Arts & Sciences Elective Code: B; Comments: Permission of instructor, dean
Hours per week: 1.0 lecture