FIRE PROTECTION (FIR)

FIR 100. Fire Department Apparatus. 2 Credit Hours.
A study of the description and specification of the various fire department apparatus found in the modern organization, special emphasis is given to manufacturer’s specifications, analysis of the various codes and standards of construction and methods of writing specifications for various pieces of equipment. In addition, the instruction covers the principles of care maintenance, and operation of the various types of apparatus including principles of pumping, pumps, and accessories, power development and transmissions and pumping practices. Prerequisite: Reading Proficiency.

FIR 102. Fire Characteristics. 3 Credit Hours.
Characteristics and behavior of fire found in ordinary materials and special materials such as oils and other combustible chemicals. A review of basic chemistry with emphasis on combustion and internal combustion. Hazards of liquids and gases, special techniques in regard to oxygen supplies. Prerequisites: CHM 114 and Reading Proficiency.

FIR 103. Fire Service Management and Administration. 3 Credit Hours.
Instruction in management and administration for the fire service including the functions of management, planning, organizing, directing, controlling, the management cycle, motivation, behavioral science, executive development, educational development, and labor relations. Prerequisite: Reading Proficiency.

FIR 105. Inspection and Fire Prevention. 3 Credit Hours.
Inspection surveying and mapping procedures associated with the organization and function of fire prevention. A survey of the various codes and standards; how these various standards are used in inspecting buildings for fire hazards; how to actually inspect a building with respect to existing fire protection equipment-structural details that must be known to avoid undue loss in case of fire. Opportunity will be provided to make at least one complete inspection and report on an operating industry. Prerequisite: Reading Proficiency.

FIR 106. Teaching Techniques for Fire Department Personnel. 3 Credit Hours.
The basic theories of learning and methods of instruction are discussed. The use of lectures, demonstrations, and visual aids as applied to the instruction of fire department personnel is illustrated. Practice is provided in the use of lesson plans, visual aids, tests, and other teaching devices including module on the use of microcomputers as an instructional device. Each student’s application of a teaching procedure is critically discussed and evaluated. Prerequisite: Reading Proficiency.

FIR 113. Fire Prevention. 3 Credit Hours.
Fire Prevention 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. Prerequisite: Reading Proficiency.

FIR 114. Fire Protection Systems. 3 Credit Hours.
Fire Protection Systems provides information related 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. Prerequisite: Reading Proficiency.
FIR 214. Fire Behavior and Combustion. 3 Credit Hours.
Fire Behavior and Combustion explores the theories and fundamentals of how and why fires start, spread and are controlled.
Prerequisite: Reading Proficiency.

FIR 215. Principles of Fire and Emergency Services Safety and Survival. 3 Credit Hours.
Principles of Fire and Emergency Services Safety and Survival 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.
Prerequisite: Reading Proficiency.

FIR 216. Principles of Fire and Emergency Services Administration. 3 Credit Hours.
Principles of Fire and Emergency Services Administration 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: Reading Proficiency.

FIR 217. Fire Investigation II. 3 Credit Hours.
Fire Investigation II provides the student with advanced technical knowledge on the rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and court room testimony.
Prerequisites: FIR 116 and Reading Proficiency.

FIR 218. Fire Protection Hydraulics and Water Supply. 3 Credit Hours.
Fire Protection Hydraulics and Water Supply 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: MTH 124 and Reading Proficiency.

FIR 219. Hazardous Materials Chemistry. 3 Credit Hours.
Hazardous Materials Chemistry provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity and health hazards encountered by emergency services.
Prerequisite: Reading Proficiency.

FIR 220. Strategy and Tactics. 3 Credit Hours.
Strategy and Tactics provides the principles of fire ground control through utilization of personnel, equipment and extinguishing agents.
Prerequisites: FIR 115 and Reading Proficiency.

FIR 221. Legal Aspects of Emergency Services. 3 Credit Hours.
Legal Aspects of Emergency Services will address the federal, state and local laws that regulate emergency services and include a review of national standards, regulations and consensus standards.
Prerequisite: Reading Proficiency.