FIRE SCIENCE (FIRE)

FIRE 1010 - Principles of Fire and Emergency Services Safety & 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 behavioral change throughout the emergency services.
Lecture: 3 hours

FIRE 1020 - Fundamentals of Fire Prevention
(3 Credits)
This course provides personnel in the fire service with a basic knowledge of the field of fire prevention.
Lecture: 3 hours

Prerequisite(s): FIRE 1030

FIRE 1030 - Introduction to Fire Science and Officership
(3 Credits)
This course provides an introduction to fire science and covers, in detail, the fire officer and his/her relationship with the fire organization. The fire officer's responsibilities and duties, related to fire fighting and non-firefighting activities, are also covered in detail.
Lecture: 3 hours

FIRE 1040 - Fire Fighting Tactics and Strategy
(3 Credits)
The essential elements in analyzing the nature of fires and methods of control are discussed in detail in this course. A segment of this course includes field projects with practical experience, building inspection and problems relative to major conflagrations.
Lecture: 3 hours

Prerequisite(s): FIRE 1030

FIRE 1050 - Building Construction and Fire Codes
(3 Credits)
The elements of fundamental building construction, design and fire protection features are covered in this course. Attention is also given to special considerations related to national, state and local laws and ordinances directly related to the field of fire prevention.
Lecture: 3 hours

Prerequisite(s): FIRE 1020

FIRE 1060 - Fire Behavior and Combustion
(3 Credits)
This course explores the theories and fundamentals of how and why fires start, spread, and how they are controlled.
Lecture: 3 hours

FIRE 1070 - Fire Protection Systems and Equipment
(3 Credits)
This course provides students with technical knowledge in the use of fire protection systems and equipment. Portable fire extinguishing equipment, sprinkler systems, protection systems for special hazards, and fire alarm and detection systems are covered.
Lecture: 3 hours

Prerequisite(s): FIRE 1020

FIRE 1090 - Fire Hydraulics and Equipment
(3 Credits)
This course provides a review of basic mathematics and hydraulic laws and formulas as applied to the fire service. Time is allotted for practical application of formulas and mental calculation to hydraulic problems as well as for consideration of the water supply problem and underwriters' requirements for pumps. A segment of this course includes practical field experience.
Lecture: 3 hours

Prerequisite(s): MATH 1420 or MATH 1700 or MATH 1025

FIRE 1100 - Municipal Fire Administration
(3 Credits)
This course provides an overview of the technical and administrative tasks associated with maintenance, custody and operation of a fire department.
Lecture: 3 hours

Prerequisite(s): FIRE 1030

FIRE 1120 - Investigations, Fire and Explosions
(3 Credits)
This course covers the history, development and philosophy of fire investigation and detection. Topics include inspection techniques, gathering evidence for the development of technical reports, fundamentals of arson investigations, processing of criminal evidence and criminal procedures related to the various states and local statutes. Considerable time is spent on examination of explosive and incendiary devices, methods of search and bomb-threat procedures.
Lecture: 3 hours

FIRE 1130 - Emergency Medical Technician Basic
(8 Credits)
This course trains emergency medical technicians and other allied health and safety personnel for emergency care of the sick and injured at the scene and during transport. Classroom experience and practical demonstration are used to familiarize students with the use of rescue equipment. Students are assigned 10 hours of clinical experience in the emergency room of an affiliated hospital.
Lecture: 8 hours, Lab: 2 hours