Course Description

Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground. Lecture 3 hours per week.

General Course Purpose

The purpose of this class is to familiarize Fire Science students with methods of fire control and extinguishment.

Course Prerequisites/Corequisites

FST 100

Course Objectives

By the end of the course, a successful student will be able to:

- Discuss fire behavior as it relates to strategies and tactics.
- Explain the main components of pre-fire planning and identify steps needed for a pre-fire plan review.
- Identify the basics of building construction and how they interrelate to pre-fire planning and strategy and tactics.
- Describe the steps taken during size-up.
- Examine the significance of fire ground communications.
- Identify the roles of the National Incident Management System (NIMS) and Incident Management System (ICS) as it relates to strategy and tactics.
- Demonstrate the various roles and responsibilities in ICS/NIMS.
- Identify and analyze the major causes involved in line-of-duty firefighter deaths related to health, wellness, fitness and vehicle operations.

Major Topics to be Included

- Fire Chemistry Terms and Concepts
  - Heat Transfer
  - Principle Fire Characteristics of Materials
  - Fire Classifications
- Extinguishment Equipment
  - Extinguishing Equipment
  - Fire Apparatus
  - Personnel Requirement
- Visual Perception
  - Preplanning
  - Size-up
- Pre-Fire Planning
  - Concept
  - Phases
  - Methods
  - Format
  - Occupancy Classifications
  - Building Types
- Basic Divisions of Tactics
  - Size-up
  - Facts
- Probabilities
- Own Situation
- Decision
- Plan of Operation
  - Rescue
    - Life Safety Problems of Fire
    - Determination of Life Hazard
    - Rescue Resources and Operation
  - Exposures
    - Principle Contributing Factors
    - Exposure Protection Operations
  - Confinement
    - Fire Separations
    - Fire Loading
    - Built-in Protection
    - Operations
  - Ventilation
    - Relationship to objectives
    - Equipment
    - Operations During Fire
    - Operations After Fire