

**FIP 220**  
**FIRE FIGHTING STRATEGIES**

**COURSE DESCRIPTION**

Prerequisites: None

Corequisites: None

This course provides preparation for command of initial incident operations involving emergencies within both the public and private sector. Topics include incident management, fire-ground tactics and strategies, incident safety, and command/control of emergency operations. Upon completion, students should be able to describe the initial incident command system as it relates to operations involving various emergencies in fire and non-fire situations. In addition, students study fire strategies as they relate to selected NFPA standards. Course Hours Per Week: Class 3. Semester Hours Credit 3

**COURSE OBJECTIVES:**

Upon completion of this course, the student will be able to:

- a. Assess the fire problem accurately.
- b. Determine the appropriate strategic response.
- c. Establish an organized plan of operations.
- d. Preplan a hazard site.
- e. Develop an operations plan.
- f. Exercise correct command procedures.
- g. Analyze a structural fire problem.
- h. Apply strategies to a high-rise fire.
- i. Apply strategies to an apartment fire.
- j. Apply strategies to a large commercial fire.
- k. Develop a major emergency response plan.
- l. Conduct a post-incident evaluation.

**OUTLINE OF INSTRUCTION:**

- I. Fire Behavior
  - a. Combustion
  - b. Heat
  - c. Determining Flashover Time
  - d. Flashover
  - e. Backdraft
  
- II. The Mechanisms of Fire Extinguishment
  - a. Water Flow and Form
  - b. Fog: Theory and Practice
  - c. Solid and Straight Streams
  - d. Firefighting Foams and Additives
  
- III. The Development of Firefighting

- a. Ladder Company Functions
  - b. Staffing a Company
  - c. Staffing Trials
  - d. Establishment of Rescue Companies
  - e. Influence on the Fire Service by the Insurance Industry
  - f. Progress in Firefighting
  - g. European Methods
- IV. Firefighting Strategy
- a. Personnel Requirements
  - b. Apparatus Response Time
  - c. Establishment of a Command Post
  - d. Span of Control
  - e. Incident Command System
- V. Firefighting Tactics
- a. Tactical Considerations
  - b. Location of the Fire
  - c. Extension Probability
  - d. Types of Fires
  - e. Analysis of the Fire Situation
- VI. The Action Plan - Working At A Fire
- a. Finding the Fire
  - b. Rescue, Search, Entry, Ventilation
  - c. Protection of Exposures
  - d. Safety
  - e. Communication
  - f. Salvage, Overhaul, Extinguishment
  - g. Cooperation of Other Agencies
- VII. Fireground Control and Coordination
- a. Stress Situations
  - b. Coordination
  - c. Tactical Errors and Weaknesses
  - d. Application of the Tactics
- VIII. Safety On The Fireground
- a. Building Collapse
  - b. Burns, Smoke Inhalation, Electrocutation
  - c. Safety and Building Collapse
  - d. Heat Hazard and Clothing
  - e. Clothing Limitations and Problems
  - f. Getting Lost
  - g. Critical Incident Stress
- IX. The Fire Building - Hindrance And Help
- a. Vertical Spread of Heat and Smoke

- b. Structural Failure
  - c. Building Collapse
  - d. Mill Construction
  - e. Collapse from Water
- X. Sprinkler Operations
- a. Checking the Supply
  - b. Sprinkler Flow
  - c. Automatic Wet-Pipe System
  - d. Automatic Dry-Pipe System
  - e. Deluge Systems
  - f. Non-Automatic Systems
- XI. Ladder Company Operations
- a. Some Common Mistakes
  - b. Ladder Company Positioning
  - c. Necessity of Assigning Tools
  - d. Use of Ground Ladders
  - e. Need for Scaling Ladders
- XII. Engine Company Operations
- a. Hydrants
  - b. Tandem Pumping
  - c. Hydrant-to-Pumper Layout
  - d. Hose Operations, Large-Diameter Hose
  - e. Hydrant Selection
  - f. Lines Taken From A Pumper
  - g. Restricted Inlet Flow
  - h. Delivering The Water
  - i. Interior and Exterior Attack
- XIII. Pre-Fire Planning
- a. Stress on Nonvariables
  - b. Post-Fire Analysis
  - c. Evaluation Standards
- XIV. Major Fires
- a. Logistical Factors
  - b. Command Structure
  - c. Staging Area
  - d. Fire Officials of Disaster Area
- XV. The Everyday Fire
- a. Plastics, Oil Burners
  - b. Chimney, and Attic Fires
  - c. Mercantile, and Taxpayer Fires
  - d. Multiple-Dwelling Fires
  - e. Apartments
  - f. Factory Fires

- XVI. Special-Problem Fires
  - a. High-Rise Fires
  - b. Transportation Fires
  - c. Hazardous Materials
  - d. Aircraft Fires
  - e. Fires In Places of Worship and Assembly
  - f. School Fires

**REQUIRED TEXTBOOK AND MATERIALS:**

Textbooks to be selected by instructor.

**STATEMENT FOR STUDENTS WITH DISABILITIES:**

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 686-3652 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.