

FIP 120
INTRODUCTION TO FIRE PROTECTION

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course provides an overview of the history, development, methods, systems, and regulations as they apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum, and other related topics. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field. Course Hours Per Week: Class, 3. Semester Hours Credit, 3.

COURSE OBJECTIVES:

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

- a. Enumerate the career opportunities in fire protection.
- b. Define fire.
- c. Explain the fire triangle
- d. Explain the stages of fire.
- e. Define conduction, convection, and radiation.
- f. List the major organizations in fire protection.
- g. List the objectives of fire protection.
- h. Reproduce a typical fire department organizational chart.
- i. List the types of fire departments.
- j. Define and identify all the major pieces of apparatus and equipment.
- k. Define the functions of fire prevention.
- l. List five investigation procedures.
- m. Explain patterns of fire generation.
- n. List the types of codes and their enforcement.
- o. List the types of hydrants.

OUTLINE OF INSTRUCTION:

- I. Fire Technology Education and the Firefighter Selection Process.
 - a. College Fire Technology Programs
 - b. Career Potential Assessment
 - c. Work Ethics and Human Relations
 - d. Training Programs
 - e. Personnel Development Programs
 - f. Selection Process

- II. Fire Protection Career Opportunities
 - a. Public Fire Protection Careers
 - b. Private Fire Protection Careers

- III. Public Fire Protection
 - a. Evolution of Fire Protection
 - b. Equipment
 - c. Fire Stations
 - d. Personal Protective Equipment
 - e. Fire Losses
 - f. The U.S. Fire Problem Today
 - g. Purpose and Scope of Fire Agencies
 - h. Fire Defense Planning
 - i. The Future of Fire Protection

- IV. Chemistry and Physics of Fire
 - a. Fire Defined
 - b. Fire Triangle
 - c. Fire Tetrahedron
 - d. Chemistry of Fire
 - e. Physics of Fire
 - f. Heat and Temperature
 - g. Heat Transfer
 - h. Classification of Fires
 - i. Phases of Fire

- V. Public and Private Support Organizations
 - a. National and International Organizations
 - b. Federal Organizations
 - c. State Organizations
 - d. Local Organizations
 - e. Periodical Publications

- VI. Fire Department Resources
 - a. Fire Department Facilities
 - b. Fire Apparatus
 - c. Fire Tools and Appliances
 - d. Heavy Equipment
 - e. Personal Protective Equipment
 - f. Aircraft

- VII. Fire Department Administration
 - a. Principles of Command
 - b. The Management Cycle
 - c. Fire Department Types
 - d. Communications

- VIII. Support Functions
 - a. Dispatch
 - b. Transmission of Alarms
 - c. Graphic Arts/Maps
 - d. Hazardous Materials Control Units
 - e. Arson Unit
 - f. Personnel

- g. Information Systems
 - h. Business Manager
 - i. Fire Business Management
 - j. Technical Support
 - k. Warehouse Central Stores
 - l. Repair Garage
 - m. Radio Shop
 - n. Adjutant Aide
- IX. Training
- a. Training Bureau
 - b. Purpose and Importance of Training
 - c. Technical Training
 - d. Manipulative Training
 - e. Determining Adequate Levels of Training
 - f. Performance Standards
 - g. Skills Development
 - h. Skills Maintenance
 - i. Skills Assessment
 - j. Standard Operating Procedures
 - k. Training Records
 - l. Relationship of Training to Incident Effectiveness
 - m. Required Training
- X. Fire Prevention
- a. Fire Prevention Bureau
 - b. Professional Standards
 - c. Purpose of Fire Prevention Activities
 - d. Fire Prevention Activities
 - e. Fire Prevention Terms
 - f. Methods of Fire Prevention
 - g. Hazard Evaluation and Control
 - h. Public Education
 - i. Organization
 - j. Legal Authority
 - k. Fire Prevention Inspection
 - l. Determination of Fire Cause
 - m. Fire Information Reporting
- XI. Codes and Ordinances
- a. Definition of Laws
 - b. Lawsuits
 - c. Personnel Complaints
 - d. Court System
 - e. Relationship of Federal, State, and Local Regulations
 - f. Fire Prevention
 - g. Model Fire Codes
 - h. Code Development
 - i. Relationship of Codes to Standards
 - j. Operations of Emergency Vehicles

- k. Infectious Disease
 - l. Good Samaritan Laws
 - m. Personnel Safety
 - n. Scene Management
- XII. Fire Protection Systems and Equipment
- a. Public Water Companies
 - b. Private Water Companies
 - c. Water Supply Systems
 - d. Fire Hydrants
 - e. Water Systems Program
 - f. Auxiliary Sources of Water Supply
 - g. Private Fire Protection Systems
 - h. Extinguishing Agents
 - i. Extinguishing Systems
- XIII. Emergency Incident Management
- a. Management Responsibility
 - b. Incident Planning
 - c. Incident Command System
- XIV. Emergency Operations
- a. Personnel
 - b. Structure Fire Fighting
 - c. Electrical Installations
 - d. Wildland Fire Fighting
 - e. Wildland Urban Interface/Intermix Fire Fighting
 - f. Oil Fire Fighting
 - g. Hazardous Materials Incidents
 - h. Emergency Medical Operations
 - i. Vehicle Accidents
 - j. Vehicle Fires
 - k. Aircraft Fire Fighting
 - l. EMS and Fire Fighting with Aircraft

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.