

Course Code: FST 114**Course Title:** Fire Prevention Principles**Department:** Allied Health**Effective Date:** Summer 2026**PCS Code:** 1.2 - Occupational/Technical Instruction**CIP Code:** 43.0201**Repeatability:** 0

Credit Hours

Catalog Notation: 3-0-3**Credit Hour Distribution:**

Lecture: 3

Lab: 0

Clinical: 0

Total: 3

General Course Information

Catalog Description

Provides basic information about fire prevention activities conducted by the fire department.

General Course Objectives

To provide the student with knowledge necessary to meet the Fire Officer I Certification requirements of the Office of the State Fire Marshal, with respect to the principles of fire prevention.

Minimum Placement Levels

English	Reading	Math
Placement into ENG 098	Placement out of CCS 098	Placement into MAT 060

Prerequisites

None

Methods of Evaluation

2-3 essays and objective exams, 1 written paper and 1 project.

Instructional Materials and Additional Supplies

Fire Inspection and Code Enforcement, current edition, IFSTA. 978-0134873916

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Orientation	1. Identify the Office of the State Fire Marshal, Division of Personnel Standards and Education requirements for Fire Officer I Certification. Identify NFPA Standards governing Fire Officer I. 2. Identify the roles and responsibilities of a Fire Officer I. 3. Identify the local, state, and federal agencies which a Fire Officer I will be associated with.	1	0	0
Inspection Authority	1. Define the terms that apply to inspection and code enforcement. 2. Identify and determine the liability requirements for fire inspections. 3. Describe the process for issuing permits. 4. Identify the legal authority that is required for fire inspections. 5. Identify the procedure for passing laws in the state of Illinois. 6. Identify the provision of right of entry during fire inspections. 7. Identify the police power that is required for fire inspections.	2	0	0
Building Construction and Occupancy Classification	1. Identify the two basic sources of information needed for fire inspections. 2. Identify the four major code organizations. 3. Identify the five types of building construction classifications. 4. Identify the contents and format of the major building codes. 5. Identify the organizations that form the Board of Coordination of Model Codes. 6. Identify the following components of the Life Safety Code: assembly, educational, day care, health care, detention and correctional, residential, mercantile, business, industrial, storage, mixed occupancy, and hazard of content.	3	0	0
Combustion and Fire Growth	1. Identify the principles of fire growth. 2. Identify the process of rating fire spread. 3. Identify the testing procedures and design for the following: roof coverings, fire walls and partitions, fire doors and assemblies, draft curtains, smoke and heat vents, fire and smoke dampers, and fire stops. 4. Define the following terms: fire hazard, common fire hazard, special fire hazard, and fire cause. 5. Identify the classifications of fire hazards. 6. Identify the types of fire hazards. 7. Identify fire hazards of various occupancies. 8. Determine the classifications of fire loads.	3	0	0
Inspection Procedures	1. Identify the procedures for conducting a fire inspection. 2. Given a fire inspection report of a facility or area used for storage, handling, or transportation of hazardous materials, identify the hazards that exist, and determine recommendations to correct the hazards identified. 3. Develop a pre-incident plan that identifies the hazards of the following occupancies given a summary of fire inspection procedures: assembly and educational. 4. Identify the hazards that exist given a fire inspection report of a facility or area used for storage, handling, or transportation of flammable liquids, and list recommendations to correct the hazards identified. 5. Identify the importance of pre-incident planning during a fire inspection. 6. Identify the storage and handling of hazardous materials. 7. Identify the components of a plans review. Identify how pre-incident planning aids emergency operations.	3	0	0

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Fire Cause and Origin	1. Identify the process of identifying the point of origin of fire. 2. Identify the collection and chain of evidence process at a fire scene. 3. Identify the procedure for securing a fire scene during investigation. 4. Identify the procedures for reporting and filing records and reports from a fire investigation. 5. Given fire photographs and/or sketches, determine the point of origin. 6. Identify the procedure used by the authority having jurisdiction to determine loss to structure and contents. 7. Demonstrate methods used to identify and preserve evidence and secure a fire scene. 8. Identify the types of fires when investigating multiple fires. 9. Identify the causes of fire during the investigation process. 10. Identify the various types of evidence found at a fire scene.	3	0	0
Fire Suppression Systems	1. Identify the various types of sprinkler systems. Identify the inspection and testing procedures for sprinkler systems. 2. Identify the various types of standpipe systems. Identify the classes of standpipe systems. 3. Identify the inspection procedures for standpipe systems. 4. Identify the types of fixed fire protection systems. Identify the inspection procedures for fixed fire protection systems. 5. Identify the maintenance procedures for first aid fire extinguishers. 6. Identify the components of the various types of automatic and manual fire alarm systems and devices. 7. Identify the maintenance requirements of the various types of automatic and manual fire alarm systems and devices. 8. Identify and demonstrate the testing procedure for water supply. 9. Determine and identify what the fire flow requirements will be for various occupancies. 10. Identify the various types of fire pumps and their testing procedures.	3	0	0
Public Fire/Life Safety Education	1. Identify the five step process for the development of a public fire education program. 2. Identify the components for curriculum development of a public fire education program. 3. Perform a needs assessment utilizing the five step process to identify, select, design, implement, and evaluate a fire safety program, given a summary of the five step process for the development of a public fire education program.	3	0	0
Inspection of Extinguishing Systems	1. Evaluate the operational readiness of a sprinkler system, stationary fire pumps, standpipe systems, and special extinguishing system. 2. Demonstrate the procedures for the inspection of stationary fire pumps and standpipe systems.	3	0	0
Inspection of Fire Alarm and Detection Systems	1. Explain signaling and detection systems and describe the functions and operating procedures of a public fire alarm system.	3	0	0
Fire Cause Determination	1. Explain the factors to be considered on arrival at a fire scene. 2. Demonstrate methods used to identify and preserve evidence and describe how the methods used by arsonists can be detected. 3. Describe how the record-keeping system on fire protection systems is used and maintained.	3	0	0
Fire Behavior and Building Construction	1. Explain considerations for hose line selection, stretching, and placement. 2. Identify the importance of building construction to fire ground operations. 3. Anticipate and identify fire spread and collapse potential of a building. 4. Identify the principles of fire behavior as they relate to tactics and strategy.	3	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Pre-fire Planning	1. Identify and determine the essential components of a pre-plan.	3	0	0
Fire Fighter Safety	1. Evaluate and describe the causes of unsafe acts or conditions that result in fire department accidents, injuries, or deaths. 2. Identify the most common causes of personal injury to the fire fighter.	3	0	0
Engine Company Operations	1. Discuss the duties of an engine company. 2. Identify basic principles of water supply. 3. Identify use of a recognized critical flow formula. 4. Identify each of the three basic methods of fire attack. 5. Identify the key factor in determining the number of engines responding to a fire.	2	0	0
Truck Company Operations	1. Discuss three factors affecting a successful tanker shuttle operation. 2. Identify the primary duties of truck work. 3. Given an emergency incident requiring rescue and a list of available resources, demonstrate the utilization and coordination of personnel and equipment to complete the rescue operations. 4. Identify tactical considerations and position of truck/aerial apparatus.	2	0	0
Hazardous Materials	1. Describe the guidelines for handling hazardous materials incidents. 2. Prepare and plan an operational plan that identifies the required resources and safety considerations for the safe and successful control of an incident; determine the resources required for control and demonstrate the assignment and placement of these resources for each of the following: flammable liquids, flammable gases, poisons, explosives, radioactive materials, flammable solids, reactives, and corrosives. 3. Identify national, state/provincial, and local information resources for the handling of hazardous materials under fire or emergency situations.	2	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
45	0	0