



MERCER
COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

Course Number FIR 204	Course Title Fire Fighting Tactics	Credits 3
Hours: 3 Lecture Lecture/Lab/Other	Co- or Pre-requisite: N/A	Implementation Semester & Year January 2022

Catalog description:

This course examines pre-fire planning, fire ground organization and problem solving, as well as the proper utilization of workers and equipment.

General Education Category:

Not GenEd

Choose an item.

Course coordinator:

James McCann, (609) 799-3245 or mccannj@mccc.edu

Required texts & Other materials:

Fire Officer's Handbook of Tactics, Current Edition,
John Norman, 5th edition, Fire Engineering

Course Student Learning Outcomes (SLO):

The student will be able to:

1. Demonstrate (verbally and written) knowledge of fire behavior and the chemistry of fire. (ILG 1, 3, 10), (PLO 1, 2, 3, 7)
2. Articulate the main components of pre-fire planning and identify steps during a pre-fire plan review. (ILG 1, 3, 4, 10, 11), (PLO 3, 6, 7)
3. Recall the basics of building construction and how they interrelate to pre-fire planning. (ILG 1, 2, 3, 4, 10, 11), (PLO 3, 4, 6, 7)
4. Recall major steps taken during size-up and identify the order in which they will take place at an incident. Describe how size-up relates to firefighting tactics and resources. (ILG 1, 3, 4, 10, 11), (PLO 1, 3)
5. Recognize and articulate the importance of fire ground communications. (ILG 1, 4, 11), (PLO 1, 3, 7)
6. Identify and define the main functions within the ICS system and how they interrelate during an incident. (ILG 1, 10, 11), (PLO 1,3)
7. Given different scenarios, the student will set up an ICS, call for appropriate resources and bring the scenario to a mitigated or controlled conclusion. (ILG 1, 3, 4, 10, 11), (PLO 2, 3, 7)
8. Identify and analyze the major causes involved in line of duty firefighter deaths related to health, wellness, fitness and vehicle operations. (ILG 1, 3, 4, 10, 11), (PLO 4, 5, 6, 7)

Course-specific Institutional Learning Goals (ILG):

Institutional Learning Goal 1.

Written and Oral Communication in English: Students will communicate effectively in both speech and writing.

Institutional Learning Goal 2.

Mathematics: Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

Institutional Learning Goal 3.

Science: Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.

Institutional Learning Goal 4.

Technology: Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

Institutional Learning Goal 10: Information Literacy: Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

Institutional Learning Goal 11: Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Program Learning Outcomes for:

1. Discuss the history, support organizations, resources, incident management, training, and emergency operations and relate how each plays a role within the fire service;
2. Define and use basic terms and concepts associated with the chemistry and dynamics of fire;
3. Apply principles of hydraulics, building construction, strategy, and tactics to fire ground operations;
4. Communicate the relationship of fire prevention and fire inspection;
5. Demonstrate the importance of public education in relation to fire prevention;
6. Evaluate facilities to appraise code compliance and potential hazards, building construction issues, and presence of appropriate fire protection systems to help ensure life safety both pre-incident and during an incident;
7. Employ safe work practices using recognized standards and regulations

Units of study in detail – Unit Student Learning Outcomes:

- I. ***Fire Chemistry Terms and Concepts (Supports SLO 1)***
 - A. Define Heat Transfer
 - B. Describe the Principal Fire Characteristics of Materials
 - C. List Fire Classifications
- II. ***Extinguishing Equipment (Supports SLO 2)***
 - A. Understand and describe Extinguishing Equipment
 - B. Understand and describe Fire Apparatus
 - C. Understand and describe the needed Personnel Requirement
- III. ***Visual Perception (Supports SLO 4)***
 - A. Describe Pre-planning and its value to fire departments
 - B. Describe Size-up and its importance

- IV. **Pre-Fire Planning (Supports SLO 3)**
- A. Explain Pre-fire planning Concept
 - B. *Explain Pre-fire planning* Phases
 - C. *Describe Pre-fire planning* Methods
 - D. Explain the Format of Pre-fire planning
 - E. List the Occupancy Classifications
 - F. List the Building Types
- V. **Basic Divisions of Tactics (Supports SLO's 4, 5, 6, 7)**
- A. Understand and explain Size-up:
 - 1. Facts
 - 2. Probabilities
 - 3. Priorities
 - 4. Life Hazards
 - 5. Own Situation
 - 6. Decision
 - 7. Plan of Operation
 - B. Describe Engine Company Operations
-Manpower considerations
 - C. Describe Ladder Company Operations
- VI. **Rescue (Supports SLO 8)**
- A. Understand and explain Life Safety Problems of Fire
 - B. Describe the Determination of Life Hazard
 - C. Understand and explain Rescue Resources and Operations
 - D. Understand the concepts of Firefighter Safety & Survival
- VII. **Exposures (Supports SLO 4)**
- A. Explain Principle Contributing Factors for exposures
 - B. Understand and describe Exposure Protection Operations
- VIII. **Confinement (Supports SLO 2)**
- A. Explain Fire Separations and their value
 - B. Understand and describe Fire Loading
 - C. Explain Built-in Protection
 - D. Understand and describe Operations
- IX. **Ventilation (Supports SLO 4)**
- A. Understand Ventilations Relationship to Objectives
 - B. Understand Equipment used
 - C. Understand Roof Types
 - D. Understand Hazards
 - E.. Understand Ventilation Methods
- X. **Salvage (Supports SLO 4)**
- A. Describe Salvage and its Relationship to Objectives
 - B. Understand Equipment used
 - C. Describe Salvage Operations During Fire and its value
 - D. Explain Salvage Operations After Fire

Evaluation of student learning: Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor. Periodic tests or quizzes as well as a final exam may be utilized. Other methods such as a research papers or group projects are encouraged.

