



MERCER
COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

Course Number
FIR 208

Course Title
**Fire Department Occupational Safety
and Health Administration**

Credits
3

Hours: 3 Lecture
Lecture/Lab/Other

Co- or Pre-requisite: N/A

Implementation
Semester & Year
January 2022

Catalog description:

Develops an understanding of fire service safety and risk management programs including fire service requirements, compliance with OSHA regulations, national consensus standards, and NFPA 1500.

General Education Category:

Not GenEd

Choose an item.

Course coordinator:

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Required texts & Other materials:

Occupational Safety, Health and Wellness, 4th edition, IFSTA
ISBN- 978-0-87939-388-5

Course Student Learning Outcomes (SLO):

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

This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization.

1. Describe the history of health and safety programs. (ILG 1, 5, 7), (PLO 1, 7)
2. Identify occupational health safety programs in industry today. (ILG 5, 7, 10), (PLO 1, 7)
3. Identify occupational health and safety programs for the emergency services. (ILG 5, 7, 10), (PLO 1, 7)
4. Describe the distinction between standards and regulations. (ILG 10), (PLO 6, 7)
5. Identify federal regulations that impact on health and safety programs. (ILG 10), (PLO 6, 7)
6. Identify the standards that impact on occupational health and safety. (ILG 10), (PLO 7)
7. Identify the concepts of risk identification and risk evaluation. (ILG 9, 10), (PLO 1, 7)
8. Describe the considerations for safety in fire stations and emergency response vehicles. (ILG 9, 10), (PLO 1, 7)
9. Describe the components of an effective response safety plan. (ILG 1, 10), (PLO 1, 3, 4, 5, 6, 7)
10. Describe the components of the pre-incident planning process. (ILG 1, 10), (PLO 1, 3, 4, 5, 6, 7)
11. Describe the considerations for safety while training. (ILG 1, 10), (PLO 1, 3, 4, 5, 6, 7)
12. Define the value of personal protective equipment. (ILG 1, 10), (PLO 1, 3, 4, 5, 6, 7)
13. Describe the components of accountability system in emergency operations. (ILG 1, 10), (PLO 1, 3, 7)

14. Define incident priorities and how they relate to health and safety. (ILG 1, 10), (PLO 1, 3, 7)
15. Describe the relationship of incident management as it related to health and safety. (ILG 1, 10), (PLO 1, 7)
16. Describe the methods of controlling hazards associated with responding to EMS, hazmat, and technical rescue incidents. (ILG 1, 10), (PLO 1, 3, 7)
17. Explain the need for and the process used for post-incident analysis. (ILG 1, 9, 10), (PLO 1, 2, 3, 4, 5, 6, 7)
18. Describe the components and value of critical incident management programs. (ILG 1, 9, 10), (PLO 1)
19. Describe the responsibilities of individual responders, supervisors, safety officers, and incident commanders, safety program managers, safety committees and fire department managers as they relate to health and safety programs. (ILG 1, 5, 7, 9, 10), (PLO 1, 2, 3, 4, 5, 6, 7)
20. Describe the components of a wellness/fitness plan. (ILG 1, 9, 10), (PLO 1, 7)
21. Identify and analyze the major causes involved in line of duty firefighter deaths related to health, wellness, fitness and vehicle operations. (ILG 1, 9, 10), (PLO 1, 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 5: Social Science:** Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.
- **Institutional Learning Goal 7: History:** Students will understand historical events and movements in World, Western, non-Western or American societies and assess their subsequent significance.
- **Institutional Learning Goal 9: Ethical Reasoning and Action:** Students will understand ethical frameworks, issues, and situations.
- **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.

Program Learning Outcomes for (PLO)

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. Introduction (Supports SLO 1, 2, 3)**
 - A. Describe the history of the Occupational Safety and Health in Industry
 - B. Describe history of Occupational Safety and Health in Emergency Service Organizations
 - C. Explain the identification of Safety Problems
 - D. Analyze and review of National Injury Statistics
 - E. Understand the DifferNational, State, and Private Organizations Involved with Occupational Safety and Health

- II. Safety-Related Regulations and Standards (Supports SLO 4, 5, 6)**
 - A. Differentiate between Regulations vs. Standards
 - B. Understand Federal Regulations Pertaining to Occupational Safety and Health
 - C. Understand NFPA Standards Pertaining to Occupational Safety and Health

- III. Risk Management (Supports SLO 7)**
 - A. Explain Risk Evaluation
 - B. Describe methods of Risk Control

- IV. Safety Program Development and Management (Supports SLO 8, 9, 10, 12)**
 - A. Describe Essential Elements
 - B. Explain Setting Goals and Objectives
 - C. Understand Cost Benefit Analysis
 - D. Describe safety in relation to training
 - E. Discuss developing Standard Operating Procedures
 - F. Explain how to collect data
 - G. Understand Publishing Health and Safety Information
 - H. Evaluate the Results

- V. Employee Fitness/Wellness Programs (Supports SLO 20, 21)**
 - A. Understand Hazards Faced
 - B. Describe Organizational Development
 - C. Discuss Employee Acceptance
 - D. Describe the importance of Medical Examinations
 - E. Understand the importance of Physical Fitness

- VI. Pre-incident Safety (Supports SLO 10)**
 - A. Understand Hazards Faced
 - B. Understand Station Safety
 - C. Understand Apparatus Safety
 - D. Understand Response Safety
 - E. Explain Pre-incident Planning

- VII. Safety at Fire Emergencies (Supports SLO 12 13 14, 15, 16)**
 - A. Understand Hazards Faced
 - B. Describe Incident Priorities and Safety
 - C. Explain the Incident Management Systems
 - D. Explain on scene Accountability
 - E. Understand and explain Rapid Intervention
 - F. Describe Rehabilitation and its importance

- VIII. Safety at EMS Emergencies (Supports SLO 12, 13, 14, 15, 16)**
- A. Understand and explain Hazards Faced
 - B. Explain Infection Control
 - C. Describe proper Personal Protective Equipment
 - D. Explain the Incident Management Systems
 - E. Describe Scene Safety
- IX. Safety at Specialized Incidents (Supports SLO 16)**
- A. Understand and explain Hazards Faced
 - B. Understand and explain Safety at Hazards Materials Incidents
 - C. Understand and explain Safety at Technical Rescue Incidents
 - D. Understand and explain Safety at Terrorism Incidents
 - E. Understand and explain Safety at Natural Disasters
- X. Post-incident Safety Management (Supports SLO 17, 18)**
- A. Describe Incident Termination
 - B. Explain the importance Post-Incident Analysis
 - C. Describe and assess Critical Incident Stress Management
- XI. Personal roles (Supports SLO 19)**
- A. Explain the roles of Individuals
 - B. Explain the roles of Supervisors
 - C. Explain the roles of Managers
 - D. Explain the roles of Incident Commanders
 - E. Explain the roles of Safety Officers
 - F. Explain the roles of Safety Program Managers
 - G. Explain the roles of Safety Committees
- XII. Making It Happen (Supports SLO 21)**
- A. Describe Determining, Measuring, and Showcasing the Benefits of health & safety
 - B. Describe the importance of Selling Management on health and safety
 - C. Describe the importance of Selling Employees

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.