



COURSE OUTLINE FALL 2008

<u>FIR 208</u>	<u>Fire Department Occupational Safety and Health Administration</u>
Course Number	Course Title
<u>3</u>	<u>3 Lecture Hours</u>
Credits	Hours: lecture/laboratory/other (specify)

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.

Prerequisites: None

Corequisites: None

Is course New or Modified? No

Required texts/other materials:

Occupational Safety and Health in the Emergency Services, James Angle, Thompson Delmar Learning

Last revised: n/a

Course coordinator: Scott Loh, 799-3245 (Dempster Center), lohs@mccc.edu

Information resources:

U.S. Fire Administration

Publications:

<http://www.usfa.fema.gov/applications/publications>

See EMS, Fire Service Administration, Fire Service Operations, Hazardous Materials, Health and Safety, Rescue, Terrorism, Wildfire

Applied Research:

<http://www.usfa.fema.gov>

Research Reports:

<http://www.usfa.fema.gov/research>

Technical Reports:

<http://www.usfa.fema.gov/applications/publications/browse.cfm?mc=29>

Topical Fire Research Series:

<http://www.usfa.fema.gov>

Learning Resource Center:

<http://www.lrc.fema.gov>

National Institute for Standards and Technology

<http://www.fire.nist.gov>: Publications

References

Emergency Incident Risk Management; Jonathan Kipp and Murry Loflin Van Nostrand Reinhold

Fire Department Safety Officer; David W. Dodson, Thomson

Health and Safety Officer and Incident Safety Officer and Health and Safety Officer; National Fire Academy

Emergency Rehab; Brady

The Fire and EMS Department Safety Officer; Gordon Sachs, Prentice Hall

NFPA Standards 1500, 1521, 1561 and 1581

Other learning resources:

Lessons Learned Information Sharing:
<https://www.llis.dhs.gov/member/secure/index.cfm>

Current Events/News

<http://www.firehouse.com>
<http://www.fireengineering.com>
<http://www.withthecommand.com>

Course goals:

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.

The student will be able to:

- Describe the history of health and safety programs.
- Identify occupational health safety programs in industry today.
- Identify occupational health and safety programs for the emergency services.
- Describe the distinction between standards and regulations
- Identify federal regulations that impact on health and safety programs.
- Identify the standards that impact on occupational health and safety.
- Identify the concepts of risk identification and risk evaluation.
- Describe the considerations for safety in fire stations and emergency response vehicles.
- Describe the components of an effective response safety plan.
- Describe the components of the pre-incident planning process.
- Describe the considerations for safety while training.

- Define the value of personal protective equipment.
- Describe the components of accountability system in emergency operations.
- Define incident priorities and how they relate to health and safety.
- Describe the relationship of incident management as it related to health and safety.
- Describe the methods of controlling hazards associated with responding to EMS, hazmat, and technical rescue incidents.
- Explain the need for and the process used for post-incident analysis.
- Describe the components and value of critical incident management programs.
- 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.
- Describe the components of a wellness/fitness plan.
- Identify and analyze the major causes involved in line of duty firefighter deaths related to health, wellness, fitness and vehicle operations.

Course-specific General Education Core Competencies and Goals.

General Education Knowledge Goals

Communication. Students will communicate effectively in both speech and writing.

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.

History. Students will understand historical events and movements in World, Western, non-Western or American societies and assess their subsequent significance.

Ethical Reasoning and Action. Students will understand ethical issues and situations.

MCCC Core Skills

Written and Oral Communication in English. Students will communicate effectively in speech and writing, and demonstrate proficiency in reading.

Critical Thinking and Problem-solving. Students will use critical thinking and problem solving skills in analyzing information.

Ethical Decision-Making. Students will recognize, analyze and assess ethical issues and situations.

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.

Collaboration and Cooperation. Students will develop the interpersonal skills required for effective performance in group situations.

Units of study in detail.

- I. Introduction
 - A. History of Occupational Safety and Health in Industry
 - B. History of Occupational Safety and Health in Emergency Service Organizations
 - C. Identification of Safety Problems
 - D. Review of National Injury Statistics
 - E. National, State, and Private Organizations Involved with Occupational Safety and Health
- II. Safety-Related Regulations and Standards

- A. Regulations vs. Standards
 - B. Federal Regulations Pertaining to Occupational Safety and Health
 - C. NFPA Standards Pertaining to Occupational Safety and Health
- III. Risk Management
- A. Risk Evaluation
 - B. Risk Control
- IV. Safety Program Development and Management
- A. Essential Elements
 - B. Setting Goals and Objectives
 - C. Cost Benefit Analysis
 - D. Training
 - E. Developing Standard Operating Procedures
 - F. Collecting Data
 - G. Publishing Health and Safety Information
 - H. Evaluating the Results
- V. Employee Fitness/Wellness Programs
- A. Hazards Faced
 - B. Organizational Development
 - C. Employee Acceptance
 - D. Medical Examinations
 - E. Physical Fitness
- VI. Pre-incident Safety
- A. Hazards Faced
 - B. Station Safety
 - C. Apparatus Safety
 - D. Response Safety
 - E. Pre-incident Planning
- VII. Safety at Fire Emergencies
- A. Hazards Faced
 - B. Incident Priorities and Safety
 - C. Incident Management Systems
 - D. Accountability
 - E. Rapid Intervention
 - F. Rehabilitation
- VIII. Safety at EMS Emergencies
- A. Hazards Faced
 - B. Infection Control
 - C. Personal Protective Equipment
 - D. Incident Management Systems
 - E. Scene Safety
- IX. Safety at Specialized Incidents
- A. Hazards Faced
 - B. Safety at Hazards Materials Incidents
 - C. Safety at Technical Rescue Incidents
 - D. Safety at Terrorism Incidents
 - E. Safety at Natural Disasters

- X. Post-incident Safety Management
 - A. Incident Termination
 - B. Post-Incident Analysis
 - C. Critical Incident Stress Management

- XI. Personal roles
 - A. Individuals
 - B. Supervisors
 - C. Managers
 - D. Incident Commanders
 - E. Safety Officers
 - F. Safety Program Managers
 - G. Safety Committees

- XII. Making It Happen
 - A. Determining, Measuring, and Showcasing the Benefits
 - B. Selling Management
 - C. 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 or group projects are encouraged.

Academic Integrity Statement: Mercer County Community College and the Fire Science program are committed to Academic Integrity -- the honest, fair and continuing pursuit of knowledge, free from fraud or deception. This implies that students are expected to be responsible for their own work and that faculty and academic support services staff members will take reasonable precautions to prevent the opportunity for academic dishonesty. The Fire Science program affirms its support of the Academic Integrity Policy as printed in the Student handbook and approved by the College Board of Trustees March 18, 2004.