



COURSE OUTLINE FALL 2008

[This suggested format is advisory; faculty members are free to modify it consistent with its guidelines.]

<u>FIR 204</u>	<u>Fire Fighting Tactics</u>
Course Number	Course Title
<u>3</u>	<u>3 Lecture Hours</u>
Credits	Hours: lecture/laboratory/other (specify)

Catalog description:

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

Prerequisites: None

Corequisites: None

Required texts/other materials: *Fire Officer's Handbook of Tactics, Current Edition*, John Norman

Last revised: 1/20/2008

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

Information resources:

- *Building Construction for the Fire Service*; Frank Brannigan
- *Collapse of Burning Buildings*; Vincent Dunn
- *Command and Control of Fires and Emergencies (and Study Guide)*; Vincent Dunn
- *Fire Command (and Workbook)*; Alan Brunacini
- *Firefighting Strategy and Tactics*; James Angle
- *Fireground Size-Up*; Michael Terpak
- *Fireground Strategies*; Anthony Avillo
- *Incident Management for the Street-Smart Fire Officer*; John "Skip" Coleman
- *Managing Major Fires*; John "Skip" Coleman
- *Strategic and Tactical Considerations on the Fire Ground*; James Smith
- *Structural Firefighting*; Ben Klaene

Other learning resources:

U. S. Fire Administration

Building Construction, Combustible & Non Combustible CDROM, U. S. Fire Administration

Publications: http://www.usfa.fema.gov/applications/publications/pubs_main.cfm

See Fire Protection, Fire Service Administration, Fire Service Operations, Hazardous Materials, Health and Safety, Rescue, Terrorism, Training, 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

<http://fire.nist.gov/bfrlpubs/fire02/PDF/f02012.pdf>

<http://fire.nist.gov/6510/6510c.pdf>

Lessons Learned Information Sharing:

<http://www.llis.dhs.gov/member/secure/index.cfm>

Reference

Strategy and Tactics for Initial Company Operations; NFA

Current Events/News

<http://www.firehouse.com>

<http://www.fireengineering.com>

<http://www.withthecommand.com>

Course goals:

The student will be able to:

- Demonstrate (verbally and written) knowledge of fire behavior and the chemistry of fire.
- Articulate the main components of pre-fire planning and identify steps during a pre-fire plan review.
- Recall the basics of building construction and how they interrelate to pre-fire planning.
- Recall major steps taken during size-up and identify the order in which they will take place at an incident.
- Recognize and articulate the importance of fire ground communications.
- Identify and define the main functions within the ICS system and how they interrelate during an incident.
- Given different scenarios, the student will set up an ICS, call for appropriate resources and bring the scenario to a mitigated or controlled conclusion.
- 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. ***Fire Chemistry Terms and Concepts***
 - A. Heat Transfer
 - B. Principle Fire Characteristics of Materials
 - C. Fire Classifications

- II. ***Extinguishing Equipment***
 - A. Extinguishing Equipment
 - B. Fire Apparatus
 - C. Personnel Requirement

- III. ***Visual Perception***
 - A. Pre-planning
 - B. Size-up

- IV. ***Pre-Fire Planning***
 - A. Concept
 - B. Phases
 - C. Methods
 - D. Format
 - E. Occupancy Classifications
 - F. Building Types

- V. ***Basic Divisions of Tactics***
 - A. Size-up
 1. Facts
 2. Probabilities
 3. Own Situation
 4. Decision
 5. Plan of Operation
 - B. Engine Company Operations

- C. Ladder Company Operations
- VI. **Rescue**
 - A. Life Safety Problems of Fire
 - B. Determination of Life Hazard
 - C. Rescue Resources and Operations
 - D. Firefighter Safety & Survival
- VII. **Exposures**
 - A. Principle Contributing Factors
 - B. Exposure Protection Operations
- VIII. **Confinement**
 - A. Fire Separations
 - B. Fire Loading
 - C. Built-in Protection
 - D. Operations
- IX. **Ventilation**
 - A. Relationship to Objectives
 - B. Equipment
 - C. Roof Types
 - D. Methods
- X. **Salvage**
 - A. Relationship to Objectives
 - B. Equipment
 - C. Operations During Fire
 - D. 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 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.