COURSE INFORMATION FORM

DISCIPLINE Fire Science
COURSE TITLE Firefighting Strategy and Tactics
CR.HR 3 LECT HR 3 LAB HR CLIN/INTERN HR CLOCK HR

CATALOG DESCRIPTION
This course provides the principles of fire ground control through utilization of personnel, equipment, and extinguishing agents.

PREREQUISITES
Principles of Emergency Services, or instructor approval

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:
1. Discuss fire behavior as it relates to strategies and tactics.
2. Explain the main components of pre-fire planning and identify steps needed for a pre-fire plan review.
3. Identify the basics of building construction and how they interrelate to pre-fire planning and strategy and tactics.
4. Describe the steps taken during size-up.
5. Examine the significance of fire ground communications.
6. Identify the roles of the National Incident Management System (NIMS) and Incident Management System (ICS) as it relates to strategy and tactics.
7. Demonstrate the various roles and responsibilities in ICS/NIMS.
GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

3 Lifelong Learning

B. Personal and Professional Development
   • Pursue structured learning opportunities, certification, and/or degrees (1-7)

C. Attributes of an Awareness of the Convergence of Knowledge
   • Apply learned skills to real world interactions (1-7)
   • Synthesize information to facilitate application (1-7)
PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

The student will be able to explain and demonstrate the safety and health procedures/requirements set by the National Fire Protection Association

- Recognize the appropriate use and care of personal protective equipment, (Bunker gear, SCBA)
- Identify the National Fire Protection Administration’s standard on fire service health and safety (NFPA 1500)

The student will be able to explain fire behavior and demonstrate the ability to extinguish class A, B, C, & D fires

- Recognize the elements of fire behavior and growth, the transfer of heat and energy, and The control theories if fire extinguishment
- Demonstrate the use of various fire streams in the extinguishment of fires

The student will be able to explain and demonstrate the ability to conduct loss control operations during emergency operations

- Demonstrates the ability to fire service tarps and other loss control equipment during salvage operations
- Demonstrates the ability to located and extinguish hidden fires (hot spots) during emergency operations

The student will be able to explain and demonstrate the ability to recognize, analyze, isolate, and mitigate hazardous materials incidents

- Accurately interprets Haz-Mat placards, labels, markers, and transport vehicles
- Recognize the appropriate action for containment and mitigation of Hazardous Materials
- Demonstrates the ability to construct a hasty and mass decontamination site

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

Students will be evaluated for mastery of learning objectives by written assessments and assignments
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

**Course Outline**

**Strategy and Tactics**

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, Size-up
   A. Facts
   B. Probabilities
   C. Own Situation
   D. Decision
   E. Plan of Operation

VI. Rescue
   A. Life Safety Problems of Fire
   B. Determination of Life Hazard
   C. Rescue Resources and Operations

VII. Exposures
    A. Principle Contributing Factors
    B. Exposure Protection Operations

VIII. Confinement

Revised 3/22/11
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 the Fire