COURSE INFORMATION FORM

DISCIPLINE Fire Science
COURSE TITLE Fire Fighter II
CR.HR 4 LECT HR. 3 LAB HR. 2 CLIN/INTERN HR. CLOCK HR. 

CATALOG DESCRIPTION
This course is designed to instruct the student in all phases of advanced firefighting skills and techniques. The student will be eligible for Fire Fighter II state certification upon completion of the course and successful completion of the Fire Fighter II state certification exam.

PREREQUISITES
FSTE 179 Principles of Emergency Services or Missouri State Fire Fighter I certification

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:
1. Demonstrate command procedures and transfer of command within an incident management system.
2. Assess the needs for an incident management system.
3. Demonstrate how to maintain power plants, power tools, and lighting equipment, given appropriate tools and manufacturer’s instructions.
4. Coordinate a team’s interior attack in a structure fire.
5. Demonstrate and/or communicate the needs for team assistance.
6. Prepare a pre-incident survey on fire alarms and communications.
7. Prepare a pre-incident survey on water supplies.
8. Demonstrate proper extinguishment of an ignitable liquid fire
9. Demonstrate and coordinate an interior attack team based on the given level of the interior fire.
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 (1-9)

C. Attributes of an Awareness of the Convergence of Knowledge
   • Apply learned skills to real world interactions (1, 3, 5, 8, 9)
   • Synthesize information to facilitate application (1, 3, 5, 8, 9)
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 explain the history and origins of the Fire and Emergency Services
• Demonstrates the use of fire service communications during emergency and non-emergency operations

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)
• Develop effect skills used for self- rescue in emergency operations
• Develop effect skills used for safe operations in fire station and on fire apparatus’
• 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 handling, care, and testing of fire service hose, nozzles and appliances
• Demonstrate the handling, care, and testing of fire service extinguishers
• Recognize the elements of building construction and its relationship to fire spread and behavior
• Demonstrate the use of, care of, and testing of fire service water supply systems
• Demonstrate the ability to remove fire byproducts including smoke, heat and toxic gasses from structures
• 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 Investigate a fire scene as to its cause and origin
• Recognize the responsibilities of the firefighter and fire department as it relates to fire investigations
• Recognize the laws, statues’, case studies and standards (NFPA 921) that apply to fire investigations
• Demonstrate the ability to evidence preservation on collection related to fire investigations

The student will be able to explain and demonstrate the ability to conduct, fire inspection and public relation events
• Recognize the fire codes, elements and procedures relating to fire inspections
• Demonstrate the ability to prepare a residential and commercial pre-incident survey
• Demonstrate the ability to present fire safety lectures and educational classes for adults and children
• Recognize the elements and parts of a fire sprinkler and detection system

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

The student will demonstrate the ability to develop and maintain professionalism in the field of Public Safety
• Demonstrate the ability to conduct the duties as a fire fighter in professional manner
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.)

Written Exams (All outcomes have a written exam component)
Practical Evaluations (1, 2, 3, 4, 5, 6, 7, 8, 9)
Classroom Exercises (2, 6, 7)
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.

I. Orientation
   A. Fire service history
   B. Fire service organization and structure today
   C. Standard operating procedures and mission
   D. Incident management system and public relations

II. Personal Safety - Nature of fire fighting

III. Building Construction
   A. Building construction terms
   B. Classification of building construction types
   C. Effects of fire and fire suppression on buildings
   D. Chimneys and flues

IV. Alarm and communications
   A. Procedures for reporting an emergency
   B. Dispatch procedures
   C. Business/non-emergency phone calls
   D. Radio operation

V. Water Supply
   A. Characteristics of water
   B. Water distribution
   C. Fire hydrants

VI. Fire streams
   A. Purpose of fire streams
   B. The extinguishing principle of water
   C. Fire stream nozzles
   D. Foam and foam streams

VII. Ventilation
   A. Principles of ventilation
   B. Vertical ventilation and horizontal ventilation
   C. Forced ventilation

VIII. Salvage and overhaul
   A. Salvage equipment
   B. General procedures
   C. Structural integrity

IX. Sprinkler systems
   A. Sprinkler system components
   B. Types of systems and factors affecting systems

X. Rescue

Revised 3/22/11
A. Searching for victims
B. Methods of removing victims
C. Equipment
D. Removing from vehicles

XI. Fire control
   A. Structural fire fighting
   B. Flammable liquid and gas fire fighting

C. Vehicle fires