

COURSE OUTLINE

Firefighter II

Course Description

FS 200. Firefighter II. 3 hours credit. Prerequisite: FS 100 with a C or better. This course will enable the student to make effective fire ground decisions pertaining to the implementation of the Incident Management System and building and structural collapse indications and potentials. The student will identify and practice safe handling of rescue and extrication tools, and will obtain basic knowledge and skills in performing vehicle extrications and other special rescue situations. The student will gain an understanding of various hose tools and appliances, hydrant flow and operability. The student will recognize container features in order to identify various types of hazardous materials and will learn to mitigate hazardous materials incidents using defensive measures. The student will demonstrate teamwork, communication, and roles and responsibilities of hazardous materials first responder at the operations level will be covered. This course will prepare the student to meet National Fire Protection Association's (NFPA) Standard 1001, Firefighter Professional Qualifications, Firefighter II level. The student will be introduced to NFPA Standard 472, Professional Competencies of Responders to Hazardous Material Incidents, at the Operations level.

Course Relevance

These certifications are beneficial for those pursuing advancements within the fire service. Concepts taught in this course will enable the student to recognize the importance of teamwork, effective communication skills, self awareness and critical thinking skills necessary to execute tasks that require immediate decision making. The student to learn techniques to assist in completing the Professional Firefighter II and Hazardous Materials Operations nationally recognized certification examinations.

Required Materials

International Fire Service Training Association (1998). *Essentials of firefighting*. (4th ed.). Stillwater OK: Fire Protection Publications.

International Fire Service Training Association, (2004), *Hazardous materials for first responders*. (3rd ed.). Stillwater, OK: Fire Protection Publications.

Supplemental materials

Essentials of Firefighting (4th ed.). Study Guide.

Hazardous Materials for First Responders (3rd ed.). Study Guide

Learning Outcomes

The intention is for the student to be able to

1. Improve better communication skills in relation to fire ground operations
2. Develop organizational skills
3. Implement the Incident Management System (IMS)
4. Select and apply appropriate rescue tools, materials and techniques
5. Identify various construction methods, fire detection alarm and suppression systems that protect those structural types and the effects that fires have on the structures
6. Identify flammable/combustible liquids and flammable gas emergencies and the proper foam fire stream applications to encounter the emergencies

Primary Learning PACT Skills that will be DEVELOPED and/or documented in this course

Through the student's involvement in this course, he/she will develop his/her ability in the following primary PACT skill areas:

1. Critical Thinking
 - Through the analysis of examples and exercises, the student will identify and define specific tasks relative to firefighting and rescue operations.
2. Problem Solving
 - Through the analysis of emergency operations, the student will develop the ability to quickly and effectively identify solutions for various emergency situations and be able to relay those solutions to others in a team.
3. Field-Related Technology
 - Through the production of simulated emergency scenarios, the student will properly use the tools and equipment of today's fire service.

Secondary skills (developed but not documented):

Speaking
Listening
Leadership
Teamwork
Reading

Major Summative Assessment Task(s)

These learning outcomes and the primary Learning PACT skills will be demonstrated by

1. Performing a series of cognitive and psychomotor tasks that will be addressed to demonstrate proficiency in order to prepare for national certification as "Firefighter II"

Course Content

- I. Themes – Key recurring concepts that run throughout this course:
 - A. Fire ground communication
 - B. Knowledge of fire service equipment and materials
 - C. Understand the use of fire equipment
- II. Issues – Key areas of conflict that must be understood in order to achieve the intended outcome:
 - A. Safety
 - B. Scene stabilization

- C. Loss prevention
- D. Environmental conservation
- III. Concepts – Key concepts that must be understood to address the issues:
 - A. Knowledge of equipment and materials
 - B. Knowledge of the Incident Management System (communication organization)
- IV. Skills/Competencies – Actions that are essential to achieve the course outcomes:
 - A. Understand the various components of the Incident Command System
 - B. Demonstrate competent use of foam fire streams
 - C. Demonstrate competent use of rescue tools
 - D. Organize pre incident surveys of high hazard occupancies

Learning Units

- I. Implementation of the Incident Management
 - A. Components of the IMS
 - B. IMS terminology
 - C. Implementation of the system
- II. Radio communication and report writing
 - A. Radio procedures
 - B. Arrival and progress reports
 - C. Emergency radio traffic
 - D. Evacuation signals
- III. Pre-incident surveys
 - A. Making the survey
 - B. Maps and sketch making
 - C. Photographs
 - D. Exit interview
- IV. Rescue and extrication tools
 - A. Emergency power and lighting equipment
 - B. Hydraulic tools
 - C. Non-hydraulic tools
 - D. Cribbing
 - E. Pneumatic tools
 - F. Lifting/Pulling tools
- V. Vehicle extrication and special rescues
 - A. Scene size up
 - B. Stabilization of vehicles
 - C. Gain access to victims
 - D. Supplemental restraints and side – Impact Protection Systems
 - E. Disentanglement and patient management
- VI. Hydrant flows and operability
 - A. Location of fire hydrants

- B. Inspection and maintenance
 - C. Use of the pitot tube
- VII. Hose tools, hose appliances, and foam fire streams
- A. Valve devices
 - B. Intake devices
 - C. Hose jackets
 - D. Hose clamp
 - E. Hose bridge
 - F. Generation of foam
 - G. Foam expansion
 - H. Foam concentrates
 - I. Class A foams
 - J. Class B foams
- VIII. Ignitable liquids and flammable gas fire control
- A. Use of water to control class B fires
 - B. Bulk transport vehicle fires
 - C. Control of gas utilities
- IX. Fire detection, alarm and suppression systems
- A. Types of alarm systems
 - B. Automatic sprinkler systems
 - C. Water supply
 - D. Applications of sprinkler systems
- X. Construction materials and building collapse
- A. Types of building construction
 - B. Effects of fire on common building materials
 - C. Firefighter hazards related to building construction
- XI. Fire cause and origin
- A. Responsibilities of the emergency responders
 - B. Roles of the investigator
 - C. Observations of the emergency responders
 - D. Conduct and statements at the scene
 - E. Secure the fire scene
 - F. Legal considerations
 - G. Protect and preserve evidence

Learning Activities

Learning activities will engage the student in both classroom interaction and field applications.

Grade Determination

The student will be evaluated through written exams, skill proficiency assessments, and other methods of evaluation at the discretion of the instructor.