



DEPARTMENT OF FINANCIAL SERVICES

Division of State Fire Marshal
Bureau of Fire Standards & Training

Firefighter Part II

Title: Master Syllabus

Date: October 19, 2016

Course Title	Firefighter Part II
Course Number	BFST906, ATPC906
Prerequisite(s)	FSFC109 Firefighter Part I
Revision Date	October 19, 2016
College Credit Recommendation	
Continuing Education Units (CEU's)	This course does not count for continuing education credits.
Class Days/Time	Varies by provider.
Program Specialist Contact Name	Name: Barbara Klingensmith Email: Barbara.Klingensmith@myfloridacfo.com
Class Location	Varies
Course Description	This course is a minimum of 192 hours of classroom and practical applications. The course will meet the JPR's of NFPA 1001 Standard for Fire Fighter Professional Qualifications, 2013 edition. The course will present information on fire department communications, building construction hazards and structural collapse, maintenance of electric generators and lighting equipment, service testing fire hose, fire fighting foam, coordinating fireground operations, advanced origin and cause, fire protection systems, conducting private dwelling fire safety surveys, Florida Statewide Emergency Response Plan (SERP), air monitoring, new challenges for firefighters, and firefighter safety and survival.
Student Learning Outcomes	After the successful completion of this course, the student will be able to do the following: <ol style="list-style-type: none">1. Discuss on scene communications and postincident reports.2. Identify hazards related to building construction, as well as factors that indicate possible structural collapse.3. Maintain extrication and rescue tools and equipment and perform basic vehicle extrication skills as well as describe the role of a Firefighter II in supporting specialized technical rescue teams.4. Explain safety rules for service testing a fire hose.5. Explain how foam is generated and used as a firefighting tool and be able to place a foam line in service using an in-line educator to extinguish an ignitable liquid fire.6. Describe tasks related to coordinating fireground operations, establishing command, and controlling Class B fires.

	<p>7. Describe evidence location and collection, as well as explain the various roles involved in a fire investigation.</p> <p>8. Explain the fundamentals of fire protection systems.</p> <p>9. Plan and conduct private dwelling and preincident planning surveys and explain the components and considerations for preparing and delivering fire and life safety presentations.</p> <p>10. Describe the history and components of the Florida Statewide Emergency Response Plan (SERP).</p> <p>11. Identify and utilize air monitoring equipment as well as its describe their limitations.</p> <p>12. Discuss current challenges faced by firefighters in today's society.</p> <p>13. Describe and perform firefighter safety and survival techniques.</p>
Required Textbook	<i>Essentials of Fire Fighting and Fire Department Operations</i> , IFSTA/BRADY (2013) ISBN: 978-0-13-314080-4
Required Materials	Hose and appliances, ladders, hand tools, salvage covers, lighting, personal protective clothing, SCBA, radios, facilities to perform live burn scenarios and at grade, above grade and below grade scenarios, search and rescue facilities, ropes, ventilation equipment, engine(s), and other equipment needed to perform the JPR's of NFPA 1001.
Method of Instruction	Classroom and practical exercises.
Grading	Passing 70%
Attendance Policy	You are required to attend all sessions of the course and complete all pre-course assignments. Failure to appear in class for a scheduled activity will be considered an absence. There are no makeup sessions.
Academic Integrity	Academic integrity is crucial to the learning community and indicates respect for the college, the instructor, the course, your classmates and yourself. Any violation of this trust, including but not limited to cheating, plagiarism, collusion, or using or having any content of an un-administered test, will result in immediate dismissal from the course. Under Florida Statute 633, any student dismissed for academic dishonesty can be refused acceptance for any course administered by FSFC.
Students with Disabilities	Any student who has a permanent or temporary disability that may require a reasonable accommodation to participate in the course must present documentation of the disability and requested accommodation no later than the beginning of the course.
Emergency Evacuation Policy	Occupants of buildings on the Florida State Fire College campus are required to evacuate and assemble outside when a fire alarm is activated or an announcement is made. Please be aware of the following policies regarding evacuation. <ul style="list-style-type: none"> Familiarize yourself with all exit doors of the classroom and the building.

	<ul style="list-style-type: none"> Remember that the nearest exit door may not be the one you used when you entered the building. If you require assistance to evacuate, inform the instructor on the first day of class. In the event of an evacuation, follow the guidance of the instructor. Do not re-enter a building unless you are given instructions by Florida State Fire College personnel to do so.
Requesting Emergency Care	Any request for emergency care should be initiated by calling “911” from any phone on campus of the Florida State Fire College. Phones are located in each classroom. Additionally, in the event of any emergency, immediately contact an instructor or staff member.
Critical Event Procedures	<p>Severe Weather – there is a lightning detection system on campus which has an audible 15 second blast of an air horn. If you are outside, please follow your instructor or move to the closest permanent building. Once the threat is over, there will be three 5 second blasts of the signal.</p> <p>Security – During the daytime, security is handled by full time faculty and staff. There are security guards on duty in the evenings and weekends. Please comply with the requests made of security officers. Failure to do so can result in removal from campus.</p> <p>Student Badges – You will be issued a badge to be worn anytime you are on campus.</p>
Enabling Objectives	<p>Given information from discussion and reading materials, the student will perform the following objectives to a written test accuracy of at least 70%, meet the applicable job performance requirements of NFPA 1001 (2013), and pass the state practical examination.</p> <p><u>Fire Department Communications</u></p> <ol style="list-style-type: none"> Describe the aspects that make up on-scene communications. [NFPA® 6.2.2] Explain the information gathered by postincident reports. [NFPA® 6.2.1] <p><u>Building Construction</u></p> <ol style="list-style-type: none"> Explain the hazards related to building construction. [NFPA® 1001, 6.3.2] Recognize the factors that influence structural collapse potential. [NFPA® 1001, 6.3.2] Identify markings and Florida’s response to Structural Collapse Awareness. Completed online at: www.florida-elearning.com <p><u>Scene Lighting, Rescue Tools, Vehicle Extrication, and Technical Rescue</u></p> <ol style="list-style-type: none"> Explain considerations for maintenance of electric generators and lighting equipment. [NFPA® 1001, 6.4.2, 6.5.4]

2. Describe the types of rescue tools and equipment. *[NFPA® 1001, 6.4.2, 6.5.4]*
3. Explain the uses and limitations of each type of rescue tool. *[NFPA® 1001, 6.4.1, 6.4.2, 6.5.4]*
4. Identify the role of a fire department during vehicle extrication. *[NFPA® 1001, 6.4.1]*
5. Describe safety considerations that must be identified and mitigated during vehicle extrication. *[NFPA® 1001, 6.4.1]*
6. Explain the use of cribbing material during vehicle extrication. *[NFPA® 1001, 6.4.1]*
7. Describe the methods used for gaining access to victims during vehicle extrication. *[NFPA® 1001, 6.4.1]*
8. Explain the role a Firefighter II will play in technical rescue operations. *[NFPA® 1001, 6.4.2]*
9. Describe the various types of technical rescue operations. *[NFPA® 1001, 6.4.2]*
10. Explain the unique hazards associated with each type of technical rescue operation. *[NFPA® 1001, 6.4.2]*

Fire Hose

1. Describe the safety considerations taken when service testing a fire hose. *[NFPA® 1001, 6.5.5]*

Fire Streams

1. Describe the methods by which fire fighting foam prevents or controls a hazard. *[NFPA® 1001, 6.3.1]*
2. Identify foam concentrates. *[NFPA® 1001, 6.3.1]*
3. Explain the factors that impact foam expansion and selection. *[NFPA® 1001, 6.3.1]*
4. Describe methods by which foam may be proportioned. *[NFPA® 1001, 6.3.1]*
5. Explain the advantages and disadvantages of various foam proportioners, delivery devices, and generating systems. *[NFPA® 1001, 6.3.1, 6.3.2]*
6. Identify causes of poor foam production. *[NFPA® 1001, 6.3.1, 6.3.2]*
7. Distinguish among various foam application techniques. *[NFPA® 1001, 6.3.1, 6.3.2]*
8. Identify foam hazards and ways to control them. *[NFPA® 1001, 6.3.1, 6.3.2]*
9. Given a 100 square foot minimum Class B combustible liquid fire, a team, PPE including SCBA, hand lines and an assignment, size up, deploy and extinguish the fire.
10. Given a 100 square foot minimum Class B flammable liquid fire, a team, PPE including SCBA, hand lines and an assignment, size up, set

up, deploy and extinguish the fire.

Fire Control

1. Describe considerations taken when coordinating fireground operations. *[NFPA® 1001, 6.1.1, 6.1.2, 6.3.2]*
2. Explain fireground roles and responsibilities a firefighter II may need to coordinate. *[NFPA® 1001, 6.1.1, 6.1.2, 6.3.2]*
3. Discuss the process of establishing and transferring Command. *[NFPA® 1001, 6.1.1, 6.1.2, 6.3.2]*
4. Describe hazards that may be present at fires in underground spaces. *[NFPA® 1001, 6.3.2]*
5. List safety precautions that should be taken at flammable/combustible liquid fire incidents. *[NFPA® 1001, 6.3.1, 6.3.3]*
6. Recognize methods used when coordinating operations at a property protected by a fire suppression system. *[NFPA® 1001, 6.3.2]*
7. Explain ways to use water to control Class B fires. *[NFPA® 1001, 6.3.1]*
8. Compare methods used to suppress bulk transport vehicle fires and flammable gas incidents. *[NFPA® 1001, 6.3.3]*
9. Establish Incident Command and coordinate interior attack of a structure fire. *[NFPA® 1001, 6.1.1, 6.1.2, 6.3.2]*

Fire Origin and Cause Determination

1. Describe types of evidence used to indicate the area of origin or fire cause. *[NFPA® 1001, 6.3.4]*
2. Recognize fire cause evidence. *[NFPA® 1001, 6.3.4]*
3. Explain the roles and responsibilities of responders and investigators involved in fire investigations. *[NFPA® 1001, 6.3.4]*
4. Tell what legal issues impact location and collection of evidence during a fire investigation. *[NFPA® 1001 6.3.4]*
5. Protect evidence of fire cause and origin. *[NFPA® 1001, 6.3.4]*

Fire Protection Systems

1. Describe fire alarm systems. *[NFPA® 1001, 6.5.3]*
2. Identify alarm initiating devices. *[NFPA® 1001, 6.5.3]*
3. Explain the ways automatic sprinkler systems work. *[NFPA® 1001, 6.5.3]*
4. Describe standpipe and hose systems. *[NFPA® 1001, 6.5.3]*
5. Explain the ways smoke management systems work. *[NFPA® 1001, 6.5.3]*

Fire and Life Safety Initiatives

1. Describe the role of a Firefighter II in planning for and conducting private dwelling fire safety surveys. *[NFPA® 1001, 6.5.1]*

THE BUREAU OF FIRE STANDARDS & TRAINING
AT

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2. Explain the components that must be considered when developing fire and life safety presentations. [*NFPA*[®] 1001, 6.5.2]
3. Recognize considerations that must be addressed when giving presentations to young children and fire station tours. [*NFPA*[®] 1001, 6.5.1, 6.5.2]
4. Describe the role of a Firefighter II in planning for and conducting preincident planning surveys. [*NFPA*[®] 1001, 6.5.1, 6.5.3]

Florida Statewide Emergency Response Plan

1. Describe the intent of the plan.
2. Identify appropriate Florida Statutes regarding the SERP.
3. Recall the number of regional response areas.
4. Differentiate between a Type I and Type II pumper.
5. Identify the Primary Agency.
6. Identify the support agencies.

Air Monitoring

1. Describe how gas monitors work and how to read a gas monitor.
2. Identify the conditions for SCBA removal (maximum permissible level for removal).
3. Discuss dangers not indicated by traditional air monitors.
4. Discuss entry requirements prior to determination of breathable atmospheres.
5. Discuss limiting access based upon monitor findings.

New Challenges for Firefighters

1. Discuss strengthened / mold resistant sheet rock.
2. Discuss National Gypsum Hi-Impact 8000 which has a layer of Lexan.
3. Discuss gallons per second theory and it is applies with today's fire loads and rate of heat releases.
4. Describe energy efficient homes and impact of ventilation.
5. Discuss current studies on PPV (NIST).
6. Describe how to gain entry into structures using newer building construction materials such as Lexan, Plexiglas, hurricane windows and shutters, etc.
7. Discuss the use of Styrofoam in building construction for walls, ceilings, parapets, etc.
8. Discuss magnetic resonance imaging.
9. Identify Hydrogen Cyanide as a major byproduct of combustion.
10. Identify challenges presented by tilt-wall construction.
11. Identify the hazards and safe working conditions around solar panels / power.

Firefighter Safety and Survival

1. Describe the body's physiological response to firefighter survival.

	<ol style="list-style-type: none"> 2. Explain proactive behaviors that RIT/RIC can accomplish. 3. Identify resources for RIT/RIC operations. 4. Identify concepts of risk management on the fireground. 5. Identify and describe RIT/RIC tools and equipment. 6. Define the acronym E.S.C.A.P.E. 7. Discuss and demonstrate how to breach a wall. 8. Describe procedures for a window escape. 9. Demonstrate various self rescues. 10. Demonstrate, as a member of a team, team rescues. 11. Demonstrate packaging drags. 12. Demonstrate moving a firefighter up or down stairs. 13. Demonstrate how to do a below floor rescue. 14. Demonstrate techniques for disentanglement.
<p><i>Practical Applications</i></p>	<p><u>All JPR's of NFPA 1001 must be successfully demonstrated by the student. The following JPR's must be demonstrated during the class.</u></p> <ol style="list-style-type: none"> 1. Identify the need for command, organize and coordinate an incident management system until command is transferred, and function within the IMS. (NFPA 1001, 6.1.2) 2. Complete a basic incident report. (NFPA 1001, 6.2.1) 3. Given a team, communicate the need for assistance identifying team needs. (NFPA 1001, 6.2.2) 4. As a member of a team, extinguish an ignitable liquid fire with a foam stream. (NFPA 1001, 6.3.1) 5. Given an assignment, coordinate an interior attack using all PPE, using safe procedures, performing search and rescue and ventilation, hazards are managed, correct tools are used, and appropriate attack techniques are used to combat a fire that is at grade, below grade, and above grade. (NFPA 1001, 6.3.2) 6. Given a team and appropriate PPE, control a flammable gas cylinder fire assuring crew integrity is maintained, contents are identified, safe havens are identified prior to advancing, open valves are closed, flames are not extinguishers unless the leaking gas is eliminated, the cylinder is cooled, cylinder integrity is evaluated, hazardous conditions recognized and the cylinder is faced during approach and retreat. (NFPA 1001, 6.3.3) 7. Using appropriate tools protect evidence of fire caused and origin assuring that evidence is noted and protected from further disturbance until investigators can arrive on scene. (NFPA 1001, 6.3.4) 8. Using stabilization and extrication tools, extricate a victim entrapped in a motor vehicle as part of a team assuring the vehicle is stabilize, the victim is disentangled without further injury and managing hazards. (NFPA 1001, 6.4.1) 9. Given an assignment to assist a rescue operation team, use appropriate

	<p>rescue equipment recognizing and retrieving rescue items as needed. (NFPA 1001, 6.4.2)</p> <ol style="list-style-type: none"> 10. Given survey forms and procedures, perform a fire safety survey in an occupied structure identifying fire and life safety hazards and providing recommendations for their correction, and referring unresolved issues to the proper authority. (NFPA 1001, 6.5.1) 11. Given prepared materials, present fire safety information to station visitors or small groups assuring the information is accurate and questions are answered or referred. (NFPA 1001, 6.5.2) 12. Conduct and prepare and preincident survey assuring all required occupancy information is recorded, items of concern are noted, and accurate sketches/diagrams are prepared. (NFPA 1001, 6.5.3) 13. Giving manufacturer and department guidelines, maintain power plants, power tools, and lighting equipment assuring equipment is cleaned, maintenance recorded, and equipment is placed in a ready state or reported otherwise. (NFPA 1001, 6.5.4) 14. Given appropriate equipment and tools, perform an annual service test on fire hose following procedures, evaluating the condition of the hose, removing damaged hose from service and recording results. (NFPA 1001, 6.5.5)
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