



**DEPARTMENT OF FINANCIAL SERVICES**

Division of State Fire Marshal  
Bureau of Fire Standards & Training

**Fire Prevention Practices**

**Title: Master Syllabus**

**Date: October 19, 2016**

<b>Course Title</b>	Fire Prevention Practices
<b>Course Number</b>	FFP1505, BFST1505, ATPC1505
<b>Prerequisite(s)</b>	None
<b>Revision Date</b>	October 19, 2016
<b>College Credit Recommendation</b>	This course has a college recommendation of 3 credits.
<b>Continuing Education Units (CEU's)</b>	This course counts for 40 hours towards Fire Safety Inspector I certification.
<b>Class Days/Time</b>	Monday – Friday 8:00 a.m. – 5:00 p.m.
<b>Instructional Supervisor</b>	Name: Dr. Barbara Klingensmith Email: Barbara.klingensmith@myfloridacfo.com
<b>Program Specialist Contact Info</b>	Name: Mike Swartz Email: <a href="mailto:mike.swartz@myfloridacfo.com">mike.swartz@myfloridacfo.com</a>
<b>Class Location</b>	Room 105
<b>Course Description</b>	This course is a study of fire inspection practices, including such items as purpose, definition, fire prevention bureau activities, hazards, fire causes, types of construction including structural features, flam spread, occupancy and fireload, inspection techniques and conducting inspections.  Chapters will be delivered in the following order:  1, 2, 17, 3, 7, 11, 4, 12, 13, 14, 15, and 16
<b>Student Learning Outcomes</b>	After the successful completion of this course, the student will be able to do the following: 1. Describe the duties and authority of the inspector and explain the legal system on which it is based. 2. Explain standards, codes and permits and participate in a legal proceeding and recognize the need for a permit. 3. Summarize physical and chemical changes that occur with fire and fire behavior. 4. Describe construction types and occupancy classifications as defined by the model building and fire codes and the Florida Fire Prevention Code 5. Describe the means of egress system and calculate occupant loads. 6. Describe and identify the components of fire alarm systems and peripheral devices

	<p>7. Recognize fire hazards that create unsafe environments and discuss the roles of the officer or inspector during an arson investigation.</p> <p>8. Identify site access requirements and conditions</p> <p>9. Identify and describe various hazardous materials symbols, placards, and markings.</p> <p>10. Describe types of packaging used for storage and transportation of hazardous materials and inspection concerns regarding storage, handling, dispensing, transportation, using and disposing of hazardous materials.</p> <p>11. Describe the plans review process, describe how to review plan views and system plans, describe the steps to be followed when reviewing plans, and be able to verify plans compliance in the field.</p> <p>12. Demonstrate communication and inspection preparation skills, identify the importance of conducting inspections and follow up inspections, describe the steps of a comprehensive emergency planning and preparedness document, handle citizen complaints and describe administrative duties.</p>
<b>Required Textbook</b>	<i>Fire Inspection and Code Enforcement (7<sup>th</sup> ed.)</i> , IFSTA (2009) ISBN: 978-087939348-9
<b>Required Materials</b>	None.
<b>Method of Instruction</b>	Classroom
<b>Grading</b>	Passing 70%
<b>Certification(s)</b>	<p>One of seven required courses for Fire Officer II certification</p> <p><a href="#">RN4807</a> COURAGE TO BE SAFE</p> <p><a href="#">FFP1505, BFST1505, or ATPC1505</a> FIRE PREVENTION PRACTICES</p> <p><a href="#">FFP2741, BFST2741, or ATPC2741</a> FIRE SERVICE COURSE DESIGN</p> <p><a href="#">FFP2811, BFST2811, or ATPC2811</a> FIREFIGHTING TACTICS AND STRATEGIES II</p> <p><a href="#">RN9572</a> FLORIDA STATE-WIDE EMERGENCY RESPONSE PLAN (SERP)</p> <p><a href="#">PD4022</a> NFA (0465) ICS-300: INTERMEDIATE ICS FOR EXPANDING INCIDENTS</p> <p><a href="#">FFP1540, BFST1540, or ATPC1540</a> PRIVATE FIRE PROTECTION SYSTEMS I</p> <p>One of the five required courses for Firesafety Inspector I certification</p> <p><a href="#">FFP2120, BFST2120, or ATPC2120</a> BUILDING CONSTRUCTION FOR THE FIRE SERVICE</p>

	<p><a href="#">FFP1510, BFST1510, or ATPC1510</a>  <a href="#">FFP2521, BFST2521 or ATPC2521</a>  <a href="#">FFP1505, BFST1505 or ATPC1505</a>  <a href="#">FFP1540, BFST1540 or ATPC1540</a></p>	<p>CODES AND STANDARDS  CONSTRUCTION DOCUMENTS AND PLANS REVIEW  FIRE PREVENTION PRACTICES  PRIVATE FIRE PROTECTION SYSTEMS I</p>
<b>Attendance Policy</b>	<p>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. Students are allowed to miss 10% of the class and still receive credit. There are no makeup sessions.</p>	
<b>Academic Integrity</b>	<p>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.</p> <p>Qualification Description  <b>FIRE OFFICER II</b></p> <p>Training Provider Message  The course must be recognized by the Fire and Emergency Services Higher Education program or the course is determined by the Division to be equivalent to the Statewide Course Numbering System or Fire and Emergency Services Higher Education course.</p> <p>Instructor Message  An instructor providing training must be qualified by the Bureau of Fire Standards and Training or instructors with requisite faculty credentials for the academic institution that is registered in the Florida Department of Education Statewide Course Numbering System to teach the course or instructors with requisite faculty credentials as determined by the United States Fire Administration-National Fire Academy or instructors with requisite faculty credentials as determined by the respective regionally accredited or nationally accredited university or college or instructors who hold an active Single Course Exemption Certification issued by the Division. Instructors who hold an active Fire Officer II Certification issued by the Division after November 18, 2013, and an active Instructor II Certification issued by the Division. Instructors who hold an active Firesafety Inspector I, Firesafety Inspector II or Fire Code Administrator Certification issued by the Division and an Instructor II Certification issued by the Division may teach the "Building Construction for the Fire Service."</p>	

	<p>Pre-Certification Message To qualify for certification as a Fire Officer II, you must possess an active Firefighter Certificate of Compliance issued by the Division or have met the curriculum requirements for Volunteer Firefighter as defined in 69A-37.055(1)F.A.C., possess and active Fire Officer I certificate of competency issued by the Division, meet the job performance requirements of NFPA 1021 - Fire Officer II (2009)., Complete the Fire Officer II curriculum., complete the Fire Officer II Task Book with required signatures., pass the Fire Officer II exam with a score of 70% or higher., complete the prerequisite course titled ICS-300. When taking a state exam, please ensure that your personal profile matches the identification that you plan to produce at Pearsonvue.</p> <p>NFPA Subject and Level Fire Officer II</p> <p>Qualification Description FIRESAFETY INSPECTOR 1</p> <p>Training Provider Message You must be certified by the State of Florida as an Instructor I, II, or III, or a State of Florida recognized Fire Department, or hold a certification as a Single Course Exemption Instructor. Applications can be made through the Bureau of Fire Standards and Training. Organization Providers are Schools, Government Entities, and Businesses that need to apply and be approved by the Florida State Fire College.</p> <p>Instructor Message You may teach courses for this type of Certification or Competency only if you hold the certification, and the appropriate disciplines.</p> <p>Pre-Certification Message To be certified as a Firesafety Inspector I in the State of Florida, an individual must; never have been convicted of felony, successfully complete 200 hours of basic certification training for firesafety inspectors, or have received equivalent training in another state, and pass a state written examination. To apply for this certification, login as a student, click on Apply, select certification exam and follow the process to submission. Supporting documentation may be scanned and attached or faxed to 352-732-1374. When faxing, note "on-line application" on the fax along with a contact phone number. You will need to have your fingerprints digitally taken and submitted. Directions on how to do this are on the home page. NOTE*** WHEN YOU ARE APPROVED TO TEST OR IF ADDITIONAL INFORMATION IS REQUIRED, A MESSAGE WILL BE SENT TO YOUR INBOX. PLEASE CHECK YOUR</p>
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	<p>INBOX ON A REGULAR BASIS.</p> <p>Renewal Message You must complete 54 hours of continuing education within your 4-year time frame. You may opt to take the examination in place of the 54 hours as indicated on your renewal application. In the event that the applicant for renewal fails the examination he/she shall be required to repeat the Firesafety Inspector Training Program, per FAC 69A-39.009. When taking a state exam, please ensure that your personal profile matches the identification that you plan to produce at Pearsonvue.</p> <p>NFPA Subject and Level Fire Safety Inspector I/II</p>
<b><i>Students with Disabilities</i></b>	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.
<b><i>Emergency Evacuation Policy</i></b>	<p>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.</p> <ul style="list-style-type: none"> <li>• Familiarize yourself with all exit doors of the classroom and the building.</li> <li>• Remember that the nearest exit door may not be the one you used when you entered the building.</li> <li>• If you require assistance to evacuate, inform the instructor on the first day of class.</li> <li>• In the event of an evacuation, follow the guidance of the instructor.</li> <li>• Do not re-enter a building unless you are given instructions by Florida State Fire College personnel to do so.</li> </ul>
<b><i>Requesting Emergency Care</i></b>	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.
<b><i>Critical Event Procedures</i></b>	<p><b>Severe Weather</b> – 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><b>Security</b> – During the daytime, security is handled by full time faculty and</p>

	<p>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><b>Student Badges</b> – You will be issued a badge to be worn anytime you are on campus.</p>
<p><b>Enabling Objectives</b></p>	<p>Given information from discussion and reading materials, the student will perform the following objectives to a written test accuracy of at least 70% and meet the applicable job performance requirements of NFPA 1021 (2009) and 1031 (2009).</p> <p><b><u>Chapter 1 Duties and Authority</u></b></p> <ol style="list-style-type: none"> <li>1. Compare and contrast public and private inspection organizations.</li> <li>2. Explain the duties of NFPA 1031 Level I &amp; II inspectors.</li> <li>3. Describe categories of inspections.</li> <li>4. Describe legal guidelines for inspectors.</li> <li>5. Explain and understand federal, state, and local laws applying to fire and life safety inspections.</li> <li>6. Understand the legal status of public and private sector inspectors.</li> <li>7. Discuss general liability considerations.</li> <li>8. Explain right of entry.</li> <li>9. Describe AHJ procedures for processing a permit.</li> <li>10. Discuss differences in levels of enforcement by AHJ (experience, education, position) FL Specific.</li> </ol> <p><b><u>Chapter 2 Standards, Codes and Permits</u></b></p> <ol style="list-style-type: none"> <li>1. Compare and contrast codes and standards.</li> <li>2. Explain the meaning of the term consensus standard.</li> <li>3. Discuss organizations that develop national consensus standards.</li> <li>4. Describe a model code.</li> <li>5. Describe how codes and standards are kept current.</li> <li>6. Describe performance based options.</li> <li>7. Explain how codes are developed locally.</li> <li>8. Explain how codes are modified.</li> <li>9. Explain the appeals process.</li> <li>10. Describe the code enforcement process.</li> <li>11. Describe the inspector’s role in the prosecution process.</li> <li>12. Discuss participating in a legal proceeding.</li> <li>13. Describe the contents of the Florida Fire Prevention Code and how it is adopted.</li> <li>14. Describe the permit process and the need for a permit.</li> <li>15. Discuss permit application.</li> </ol> <p><b><u>Chapter 3 Fire Behavior</u></b></p> <ol style="list-style-type: none"> <li>1. Describe changes of a fuel during combustion.</li> </ol>

2. Describe the four elements of a fire tetrahedron.
3. Explain how the physical state of the fuel affects combustion process.
4. Explain how oxygen concentration affects combustion.
5. Explain the difference between heat and temperature.
6. Describe sources of heat energy.
7. Discuss transmission of heat.
8. Explain the self-sustaining chemical reaction in the combustion process.
9. Describe common products of combustion.
10. Classification of fires.
11. Describe stages of fire development.
12. Summarize factors affecting fire development.
13. Describe methods to control and extinguish fire.
14. Determine if a portable fire extinguisher has been inspected and maintained properly. (FL specific objective.)

**Chapter 4 Construction Types and Occupancy Classifications**

1. Identify the appropriate codes (NFPA and ICC codes) to apply regarding the construction types.
2. Define, identify, describe, and understand Type I, II, III, IV, and V construction features.
3. Identify and understand the necessity for occupancy classifications
4. Utilizing the Florida Fire Prevention Code, identify, describe, and understand the appropriate codes (Florida Fire Prevention Code) to apply regarding the occupancy types.
5. Utilizing the Florida Fire Prevention Code, define, identify describe, understand, and apply the following occupancy classifications:
  - a) assembly occupancy type
  - b) educational occupancy type
  - c) day-care occupancy type
  - d) health care occupancy type
  - e) ambulatory health care occupancy type
  - f) detention and correctional occupancy type
  - g) one- and two- family dwellings occupancy type
  - h) lodging and rooming houses occupancy type
  - i) hotel and dormitory houses occupancy type
  - j) apartment building occupancy type
  - k) residential board and care occupancy type
  - l) mercantile occupancy type
  - m) business occupancy type
  - n) industrial occupancy type
  - o) storage occupancy type
  - p) special structures and high-rise buildings
6. Utilizing the Florida Fire Prevention Code, identify, describe, and

- understand the mixed occupancy classification.
7. Utilizing the Florida Fire Prevention Code, identify, describe, and understand the separated occupancy classification.
  8. Utilizing the Florida Fire Prevention Code, identify, describe, and understand the multiple occupancy classification.

**Chapter 7 Means of Egress**

1. Describe the means of egress system.
2. Describe the term public way.
3. Describe the means of egress components.
4. Discuss exit illumination and marking.
5. Explain the importance of establishing an occupant load.
6. Determine an occupant load of a single use structure.
7. Calculate an occupant load of a multi-use structure.
8. Explain means of egress capacity.
9. Explain total exit capacity.
10. Determine exit capacity.
11. Explain exit arrangement considerations.

**Chapter 11 Fire Detection and Alarm Systems**

1. Identify fire alarm controls panels and its operation and inspection.
2. Demonstrate familiarity with the automatic alarm-initiating devices.
3. Describe types of smoke detectors.
4. Describe alarm-signaling systems.
5. Describe inspection and testing procedures for initial acceptance and in-service thereafter.

**Chapter 12 Fire Hazard Recognition and Arson Investigation for the Officer/Inspector**

1. Describe unsafe behaviors that can cause fires.
2. Identify unsafe conditions that can create fire hazards.
3. Identify electrical conditions that can create fire hazards.
4. Compare bonding and grounding.
5. Discuss material storage facilities as they relate to fire hazards.
6. Discuss fire hazards related to heating, ventilation, and air conditioning equipment and systems.
7. Describe types of heating and cooling systems.
8. Describe commercial kitchens and their related fire hazards and fire risks.
9. Describe industrial furnaces and ovens.
10. Identify conditions related to powered industrial trucks.
11. Describe hazards of tents and membrane structures.
12. Determine operational readiness of fire-protection systems.
13. Describe concerns with welding and cutting operations.
14. Describe finishing, dipping, and quenching operations and their related fire hazards.



15. Identify hazards involved in dry cleaning operations.
16. Describe combustible dusts and associated hazards.
17. Describe asphalt and tar kettle processes.
18. Describe processing of semiconductors and electronics.
19. Describe procedures used by officers to conduct an arson investigation.

**Chapter 13 Site Access**

1. Explain the importance of fire lanes and fire apparatus access roads.
2. Describe the requirements for dead end access roads.
3. Describe methods to mark fire lanes and fire apparatus access roads.
4. Describe common access problems found at construction and demolition sites.
5. Discuss potential barriers to exterior access.
6. Describe obstructions to the interior of a structure.
7. Inspect fire department access.

**Chapter 14 Hazardous Materials**

1. Identify examples of occupancies that may contain hazardous materials.
2. Compare flammable and liquid combustible characteristics.
3. Describe compressed and liquefied gas characteristics.
4. Discuss cryogenic liquids.
5. Discuss flammable solids.
6. Identify hazards associated with toxic materials.
7. Discuss oxidizers.
8. Discuss radioactive and corrosive materials.
9. Discuss explosives and blasting agents.
10. Describe basic information that must be on a US Safety Data Sheet (SDS).
11. Describe transportation placards, labels, and markings.
12. Discuss other types of markings that may be found on hazardous materials.
13. Discuss NFPA 704 marking system for hazardous materials.
14. Compare the resource guidebooks available for dealing with hazardous materials.

**Chapter 15 Hazardous Materials: Storing, Handling, Dispensing, Transportation, Using and Disposing**

1. Discuss fixed site storage tanks.
2. Discuss non bulk and bulk packaging.
3. Identify common types of railroad cars that transport hazardous materials.
4. Identify types of cargo tank trucks that transport hazardous materials.
5. Identify intermodal containers.
6. Explain code application regarding storage of hazardous materials.
7. Explain code considerations for safe handling of hazardous materials.
8. Describe safe dispensing of hazardous liquid and gases per code

consideration.

9. Describe code considerations relating to safe transport.
10. Describe code considerations for safe usage.
11. Describe code considerations for safe disposal (notification of EPA).

**Chapter 16 Plan Review**

1. Describe the plans review process.
2. Identify the steps in the plan review process.
3. Identify the steps in the permitting process.
4. Assure Life Safety Code compliance when evaluating the plans.
5. Verify compliance with approved field plans.

**Chapter 17 Inspection Procedures**

1. Demonstrate interpersonal communication skills.
2. Demonstrate inspection preparation skills.
3. Describe inspection procedures.
4. Describe follow up procedures to assure fire code compliance.
5. Evaluate a comprehensive emergency planning and preparedness document,
6. Describe the appropriate procedures for handling a citizen's complaint.
7. Describe administrative duties and their importance.
8. Prepare correspondence regarding a code compliance issue.
9. Perform an inspection.