



# Pennsylvania State Fire Academy

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## Minimum Standard for Accreditation (MSA)

June 1997

Revised: June 2002

**Course Title:** Fire Fighter I Skills Enhancement Course (FFCP)

**Length of Course:** 32 Hours

**Lecture/Lab Breakdown:** 14/18

**Prerequisites:** Essentials of Fire Fighting - Module I (EBM) or Fundamentals of Fire Fighting (FFF) or a combination of three (3) of the following 16 hour courses: Respiratory Protection (REPR/REPX), Engine Company Operations (ECOP), Truck Company Operations (TRCO/ATRC), Structural Burn Session (SBS), Ventilation Practices (TRVP), Structural Fire Rescue (SFR)

**Referenced Texts:** Essentials of Fire Fighting - 3rd Edition

**Course Goal:** Upon completion of this course, students will be better prepared to participate successfully in the FFPA Fire Fighter I Certification Testing Process and to perform more effectively as a fire fighter on the fire grounds.

**Description of Course:** This course is designed to refresh and reinforce the basic knowledge and skills required by any fire fighter who wishes to work efficiently, effectively and safely as part of a team on the fire ground.

**Description of Methodology to be used: (Brief)** A comprehensive review of knowledge and skill requirements is the main objective. Knowledge competencies can be obtained in different methodologies. Classroom lecture, sample testing, review questions, and homework assignments are among the possibilities. Which methodology or combination of methodologies used is up to the creativity of the instructor. Skills competencies can be obtained through hands-on drills, demonstrations and/or video review. Once again the creativity of the instructor is important. Methodologies may have to be adjusted due to the experience and/or training level of the students. When selecting methodologies the overall "Course Goal" should be the foremost thought.

**Student Equipment/Supply Needs:** Full Structural Turn Out Gear and Self Contained Breathing Apparatus.

**Equipment/Audiovisual/Supply requirements:** Varies with methodology selected by the instructor.

continued

**COURSE OUTLINE**

<b><u>Time</u></b>	<b><u>Content</u></b>	<b><u>Instructor Notes</u></b>
4:00	A. FIRE BEHAVIOR <ol style="list-style-type: none"> <li>1. Basic Theory of Combustion</li> <li>2. Phases of Fire</li> <li>3. Methods of Heat Transfer</li> <li>4. Paths of Fire Spread</li> <li>5. Classes of Fire</li> <li>6. Fire Control Methods</li> <li>7. Basic By-Products of Combustion</li> </ol>	Review only
	B. VENTILATION <ol style="list-style-type: none"> <li>1. Principles of Ventilation</li> <li>2. Safety Considerations</li> <li>3. Types, Advantages and Disadvantages of Each</li> <li>4. Signs, Causes and Effects of Backdraft Explosions</li> <li>5. Methods of Preventing Backdrafts</li> <li>6. The “3 Nevers” of Ventilation</li> </ol>	Review
	C. FIRE CONTROL <ol style="list-style-type: none"> <li>1. Basic Procedures for Extinguishing Class A and B Exterior Fires</li> <li>2. Basic Procedures for Extinguishing Vehicle Rescue</li> <li>3. Basic Procedures for Extinguishing Dumpster Fires</li> <li>4. Basic Procedures for Extinguishing Class A Interior Fires</li> </ol>	Review
	D. EXTINGUISHERS <ol style="list-style-type: none"> <li>1. Common Extinguishing Agents</li> <li>2. Types of Portable Extinguishers</li> <li>3. Care and maintenance of Portable Extinguishers</li> <li>4. Rating Principles of Fire Extinguishers</li> </ol>	Review
4:00	A. PERSONAL PROTECTIVE EQUIPMENT <ol style="list-style-type: none"> <li>1. Items that Comprise Fire Fighter’s Personal Protective Clothing</li> <li>2. Disadvantages of Currently Available P.P.E.</li> <li>3. N.F.P.A. Standards</li> <li>4. Fundamental Protective Characteristics of each part of the PPE Ensemble</li> <li>5. Importance of wearing each component correctly and keeping it clean and in repair</li> </ol>	Review
	B. S.C.B.A. <ol style="list-style-type: none"> <li>1. Respiratory Hazards Encountered at Fires</li> <li>2. Types of S.C.B.A.</li> </ol>	Review
	continued	

**COURSE OUTLINE Continued**

<b><u>Time</u></b>	<b><u>Content</u></b>	<b><u>Instructor Notes</u></b>
	<ul style="list-style-type: none"> <li>B. S.C.B.A. continued               <ul style="list-style-type: none"> <li>3. Mechanical Operating Principles</li> <li>4. Inspection and Servicing Principles</li> </ul> </li> </ul>	
	<ul style="list-style-type: none"> <li>C. S.C.B.A. OPERATIONAL SKILLS               <ul style="list-style-type: none"> <li>1. Correct Donning Procedures</li> <li>2. Search Procedures</li> <li>3. Basic Utility Control Procedures</li> </ul> </li> </ul>	Practice
	<ul style="list-style-type: none"> <li>D. S.C.B.A. RESTORATION               <ul style="list-style-type: none"> <li>1. Cylinder Removal</li> <li>2. Cylinder Refill Using Cascade System</li> <li>3. Cylinder Replacement</li> </ul> </li> </ul>	Practice
4:00	<ul style="list-style-type: none"> <li>A. WATER SUPPLY SKILLS               <ul style="list-style-type: none"> <li>1. Hydrant Operations</li> <li>2. Pumper Hook-Ups</li> <li>3. Water Supplies from Draft</li> </ul> </li> </ul>	Review
	<ul style="list-style-type: none"> <li>B. FIRE STREAMS/FOAM               <ul style="list-style-type: none"> <li>1. Purposes of Fire Streams</li> <li>2. Extinguishing Principles of Water</li> <li>3. Fire Stream Requirements</li> <li>4. Terms Associated with Fire Streams</li> <li>5. Foam Characteristics</li> <li>6. Foam Concentrates</li> <li>7. Foam Production and Equipment</li> </ul> </li> </ul>	Review
	<ul style="list-style-type: none"> <li>C. FIRE STREAMS/FOAM SKILLS               <ul style="list-style-type: none"> <li>1. Handling 1-1/2" to 2-1/2" Hoselines</li> <li>2. Construct a Working Foam Line</li> <li>3. Demonstrate Foam Application Techniques</li> </ul> </li> </ul>	Practice
4:00	<ul style="list-style-type: none"> <li>A. HOSE               <ul style="list-style-type: none"> <li>1. Basic Hose Information</li> <li>2. Hose Coupling and Connections</li> </ul> </li> </ul>	Review
	<ul style="list-style-type: none"> <li>B. HOSE SKILLS               <ul style="list-style-type: none"> <li>1. Hose Connections</li> <li>2. Hose Rolls</li> </ul> </li> </ul>	Practices

continued

**COURSE OUTLINE Continued**

<b><u>Time</u></b>	<b><u>Content</u></b>	<b><u>Instructor Notes</u></b>
	C. HOSE LOADS and LAYS 1. General Hose Loading Factors	Review
	D. HOSE LOADS and LAYS SKILLS 1. Loads and Unloads 2. Load Finishes 3. Carries and Drags	Practice
	E. APPLIANCES	
	F. APPLIANCES SELECTION and APPLICATION SKILLS	
4:00	A. LADDERS 1. Purposes of Fire Services Ladders 2. Ladder Terminology and Parts 3. Types of Ladders 4. Construction of Ladders 5. Inspection and Maintenance of Ladders 6. Ladder Placement	Review
	B. LADDER SKILLS 1. Carries and Raises 2. Climbs and Securing 3. Special Carries, Raises and Uses 4. Working with Hose On/From a Ladder 5. Rescue of Conscious/Unconscious Victims and Ladders	Practice
4:00	A. FORCIBLE ENTRY 1. Entrance Requiring Forcible Entry 2. Functions Associated with Forcible Entry 3. Definitions and Use of Small Tools 4. Care for Tools 5. Safety Precautions	Review
	B. FORCIBLE ENTRY SKILLS 1. Proper Use of Tools 2. Power Saw Operations	Practice
	C. POWER AND LIGHTING EQUIPMENT	Review

continued

**COURSE OUTLINE Continued**

<b><u>Time</u></b>	<b><u>Content</u></b>	<b><u>Instructor Notes</u></b>
	D. POWER and LIGHTING EQUIPMENT OPERATIONS SKILLS	
	E. SALVAGE and OVERHAUL	Review
	1. Purpose of Salvage	
	2. Purpose of Overhaul	
	3. Indicators of Hidden Fires	
	4. Duties of Fire Fighters during Fire Scene Security and Fire Origin and Cause Determination	
	F. SALVAGE SKILLS	Practice
	1. Folds and Rolls	
	2. Methods of Deploying Covers	
	3. Construction of Water Cutes	
	4. Construction of Catchall	
	5. Covering of Building Openings	
	6. Removing of Water and Debris	
	G. OVERHAUL SKILLS	Practice
	1. Opening Ceilings, Floors, Walls, and Separating Burned Materials	
4:00	A. COMMUNICATIONS	Review
	1. Methods of Reporting a Fire	
	2. Methods of Receiving an Alarm	
	3. Procedure for Non-Emergency Communications	
	4. Procedures for 2-Way Radio Use	
	B. FIRE PREVENTION	Review
	1. Fire Prevention Activities	
	2. Basic Fire Hazards and Causes	
	3. Basic Inspection Techniques and Procedures	
	4. Sources and Intent of Various Laws Codes and Ordinances	
	C. FIRE PREVENTION SKILLS	Practice
	1. Public Fire Education Program	
	2. Basic Home Fires Inspection	
	D. SPRINKLERS	Review
	1. Components of Wet and Dry Sprinkler Systems	
	2. Operation of a Sprinkler Head	
	3. Basic Sprinkler Operations	continued

**COURSE OUTLINE Continued**

<b><u>Time</u></b>	<b><u>Content</u></b>	<b><u>Instructor Notes</u></b>
	E. SPRINKLER SKILLS 1. Operations and Hydrant/Pump Connections 2. Emergency Closure of Flowing Head	Practice
4:00	A. ROPE and KNOTS 1. Use, Construction, Care and Maintenance of Rope 2. Parts of a Knot 3. Knots and Hitches	Review
	B. ROPE and KNOT SKILLS 1. Tool and Equipment Raises 2. Tool and Equipment Securing 3. Bagging and Coiling of Rope	Practice
	C. SUMMARY and KNOWLEDGE	Review

**Competency Evaluation Mechanism (Brief description-attach copy):** Practical and Skill evaluation per Educational Training Agency Policy.

**Course Objectives (specific):** The student should be able to:

1. based on prior training and experience, refresh/review the knowledge competencies needed for a fire fighter to work as part of a team on the firegrounds.
2. based on previous training and experience, refresh/review the skills needed for a fire fighter to work as part of a team on the firegrounds.
3. demonstrate knowledge and skills contained in the current edition of Chapter 3 of NFPA #1001 (Fire Fighter I)

**Questions/Comments: Contact Rita Wessel, Curriculum Specialist: Extension 106  
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