



NATIONAL TRANSPORTATION SAFETY BOARD  
**Investigative Hearing**

Norfolk Southern Railway general merchandise freight train 32N  
derailment with subsequent hazardous material release and fires,  
in East Palestine, Ohio, on February 3, 2023

<b>GROUP</b>	<b>C</b>
<b>EXHIBIT</b>	
4	

Agency / Organization

**Ohio Department of Public Safety**  
**Division of Emergency Medical Services**

Title

**Firefighter 1 Course Packet**  
**Course Admission Requirements,**  
**Qualifications for Certification, Course**  
**Objectives, and Recommend Hours Guide**  
**Effective April 1, 2019**



OHIO DEPARTMENT OF PUBLIC SAFETY  
DIVISION OF EMERGENCY MEDICAL SERVICES

**FIREFIGHTER I COURSE PACKET**  
**Course Admission Requirements, Qualifications for Certification, Course Objectives, and Recommended Hours Guide**  
**EFFECTIVE APRIL 1, 2019**

**Course Overview**

The Firefighter I Course is designed to give new firefighters the practical and cognitive training needed to operate safely and effectively on the fireground. The course meets the training and education standards for Firefighter I as identified in the National Fire Protection Association (NFPA) Standards, NFPA 1001, Firefighter Professional Qualifications, and is the minimum level of training recommended to function as a firefighter in the State of Ohio. This entry-level firefighter training course focuses on an intense hands-on approach to firefighting, which promotes both skill competency and an understanding of the fireground.

Successful completion of the course is required to be eligible to sit for the state examination to be certified at the Firefighter I level. Upon successful completion of the course and certification as a Firefighter I, the candidate may be eligible to receive a Pro Board certification, for more information please visit [www.ems.ohio.gov](http://www.ems.ohio.gov).

**Course Objectives**

The Firefighter I Course Objectives are required to meet the industry standard for firefighter training as determined by NFPA 1001. The hours assigned to each course objective are recommendations based on national averages identified by the NFPA. Chartered fire training programs may reallocate 20% of the recommended topic hours to meet student needs.

**Course Requirements**

The Firefighter I training course shall consist of a **minimum of one hundred sixty (160) hours** and shall include all of the following:

1. A **minimum of one hundred thirty-two (132) hours** of training that meets the general knowledge requirements, general skill requirements, and the Job Performance Requirements (JPR) for Firefighter I as set forth in NFPA 1001 and in the "Firefighter I Course Objectives" approved by the executive director, with advice and counsel of the Firefighter Fire Safety Inspector Training Committee.
2. A **minimum of twenty-four (24) hours** of hazardous materials awareness and operations level training that meets the general knowledge and skills requirements as specified in NFPA 1072 "Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications"; all the objectives in the NFPA 1001 for firefighter I; and the objectives as set forth in the "Hazardous Materials Awareness and Operations Course Packet" approved by the executive director, with advice and counsel of the Firefighter Fire Safety Inspector Training Committee.
3. A **minimum of four (4) hours** on the "Courage to be Safe: Sixteen Life Safety Initiatives" course.

**Course Hours**

Course hours are restricted to curriculum instruction and shall not include time attributed to course administration, course prerequisites, or examinations required for state certification (practical skills and written examinations). Student course hours: 50 – 60 minutes = 1 hour; 25 – 30 minutes = ½ hour; full days (0800 – 1600) = 7 hours (assuming 1 hour for lunch unless otherwise documented). Instructional hours may include topic instruction, material review, and testing for knowledge, e.g., quizzes. Instructional hours shall not include practical skill testing, written testing for certification, or instruction on any topic(s) not listed on this guide.

#### **Live Fire Requirements**

**"Live Fire Training" means time in personal protective equipment (PPE) performing actual fire suppression activities. Lecture time covering fire behavior, fire attack, etc. is not considered "Live Fire Training."**

The minimum required live fire training hours (FFI: 16 hours) are included in the practical skills for each "Fire Suppression" course objective.

Prior to being permitted to participate in live fire training students shall be trained to meet the minimum JPRs for Firefighter I as set forth in NFPA 1001, *Standard for Fire Fighter Professional Qualifications*, Chapter 1: Safety, Fire Behavior, Portable Extinguishers, Personal Protective Equipment (PPE), Ladders; Fire Hose, Appliances, and Streams; Overhaul, Water Supply, Ventilation, Forcible Entry, and Building Construction.

**OHIO FIREFIGHTER I COURSE ADMISSION & CERTIFICATION REQUIREMENTS**

<b>STANDARD/ DIRECTIVE</b>	<b>O.A.C. REFERENCE</b>	<b>FIREFIGHTER I COURSE ADMISSION REQUIREMENTS</b>
NFPA 1001	4765-20-02 4765-24-11	Individuals shall be at least eighteen (18) years of age, except that a chartered program may admit a student who is seventeen (17) years old provided that the student has graduated or is enrolled in the twelfth (12th) or final grade in a secondary school program. A chartered program may admit a student into a secondary school firefighter I course who is sixteen (16) years old provided that the student is enrolled in the eleventh (11th) or twelfth (12th) grade in a secondary school public safety program. In the eleventh (11th) grade participation shall be limited to classroom and practical skills activities associated with firefighter I course objectives; students in the eleventh (11th) grade are prohibited from participation in any training involving immediately dangerous to life and health (IDLH) environments to include any live fire training.
NFPA 1001	4765-24-11	Individuals shall meet "NFPA 1001" chapter 1 entrance requirements. Including essential job tasks of NFPA 1582, Chapter 1, sub section 1.3.11.1, as determined by the medical authority of the chartered fire training program.
N/A	4765-24-11	Individuals shall demonstrate a pre-determined level of cognitive proficiency by one of the following methods: through successful completion of a cognitive-based pre-admission assessment or test such as the ACT, SAT, Work Keys, Compass, Accuplacer, TABE, or equivalent; documentation of high school or college GPA.
N/A	4765-24-11	Individuals shall meet all admission requirements established by the chartered fire training program.
<b>STANDARD/ DIRECTIVE</b>	<b>O.A.C. REFERENCE</b>	<b>QUALIFICATIONS FOR FIREFIGHTER I CERTIFICATION</b>
N/A	4765-20-02	An applicant for a firefighter certificate shall be at least eighteen (18) years of age.
HSPD-5,8	4765-20-02	Completion of National Incident Management System ICS 100, or online equivalent.
HSPD-5,8	4765-20-02	Completion of National Incident Management System, IS 700
NFPA 1001	4765-20-02 4765-24-11	Successful completion of a firefighter I training course consisting of a minimum of one hundred and sixty (160 hours) through an Ohio chartered fire training program.
N/A	4765-24-11	"Courage to be Safe: Sixteen Life Safety Initiatives Course."
NFPA 1002 NFPA 1452	4765-20-02	Successful completion of an emergency vehicle operator course meeting the following: (a) The course shall consist of a minimum of sixteen hours; (b) The course shall be consistent with the intent of "NFPA 1002" and "NFPA 1451"; (c) The course shall meet course objectives established by the executive director, with advice and counsel of the firefighter fire safety inspector training committee; (d) The course shall be completed prior to application for certification, but not more than twelve months prior to the firefighter training course start date.
NFPA 1072	4765-20-02 4765-24-11	Shall successfully complete hazardous materials awareness and operations level training in accordance with the following: (a) The training shall consist of a minimum of twenty-four hours; (b) The training shall meet the mission-specific competencies specified in "NFPA 1072" as required by "NFPA 1001"; (c) The training shall meet the objectives as set forth in the "Hazardous Materials Awareness and Operations Course Packet" approved by the executive director, with advice and counsel of the committee.
NFPA 1001	4765-20-02	Shall successfully complete emergency medical care training in accordance with the following:

		<p>(a) The training shall consist of a minimum of eight hours;</p> <p>(b) The training shall meet the performance capabilities approved by the executive director, with advice and counsel of the firefighter fire safety inspector training committee</p>
N/A	4765-20-02	Shall pass the knowledge and practical skills examinations as set forth in rule 4765-20-06 of the Administrative Code within one hundred eighty (180) days of firefighter I training course completion.
N/A	4765-20-02	Shall submit a completed application within ninety (90) days of passing the knowledge examination.
N/A	4765-20-02	<p>Applicants shall not have been convicted of any of the following:</p> <p>(a) Any felony;</p> <p>(b) A misdemeanor committed in the course of practice;</p> <p>(c) A misdemeanor involving moral turpitude.</p>
N/A	4765-20-02	Applicants shall not have committed fraud, misrepresentation, or material deception in applying for or obtaining a certificate issued under section 4765.55 of the Revised Code and this chapter.
N/A	4765-20-02	Applicants shall not have been previously revoked or denied a certificate by the executive director or the licensing organization in another state.

**OHIO FIREFIGHTER I COURSE OBJECTIVES & RECOMMENDED HOURS GUIDE**

TOPIC	NFPA 1001 Standard	IFSTA 7 <sup>th</sup> ed. Chapter Title Page#	J&B 4 <sup>th</sup> ed. Chapter Title Page#	FIREFIGHTER I JOB PERFORMANCE REQUIREMENTS (NFPA 1001)	Cognitive Hours	Practical Hours	Total Hours
Orientation and History of the Fire Service	4.1.1 4.1.2	Chapter 1 Introduction to the Fire Service and Firefighter Safety Pages 11-23  Chapter 19 Incident Scene Operations Pages 899-910  Chapter 27 National Incident Management System – Incident Command Structure Pages 1385-1393	Chapter 1 The Fire Service Pages 3-32  Chapter 22 Establishing and Transferring Command Pages 818-824 & 837-839	<b>Cognitive:</b> Summarize the history of the fire service; Explain the organizational characteristics, cultural challenges, and cultural strengths that influence the fire service; Describe the mission of the fire service; Describe the organization of the fire department; Distinguish among functions of fire companies; Summarize primary knowledge and skills the firefighter must have to function effectively; Distinguish among the primary roles of fire service personnel; Describe fire department organizational principles; Locate information in departmental documents and standard or code material; Distinguish between fire department SOPs and rules and regulations; Explain the ways the fire service may interact with other organizations; Describe the characteristics of the Incident Command System; Describe how to function in the Incident Command System.	3	0	3
Firefighter Health and Safety*  *Includes portable lighting safety and operations.	4.1.1 4.3.2 4.3.3 4.3.17	Chapter 1 Introduction to the Fire Service and Firefighter Safety Pages 24-46	Chapter 2 Firefighter Health and Safety Pages 37-65  Chapter 19 Salvage and Overhaul Pages 731-733  Chapter 20 Firefighter Rehabilitation Pages 767-785	<b>Cognitive:</b> List the main types of job-related firefighter fatalities, injuries, and illness; Describe the National Fire Protection Association standards related to firefighter safety and health; Identify Occupational Safety and Health Administration (OSHA) regulations and how they relate to firefighters; Summarize the model that supports the concept of risk management; Describe fire department safety and health programs; Summarize firefighter health awareness issues; Summarize safe vehicle operations; Summarize guidelines for riding safely on the apparatus; Describe ways to help prevent accidents and injuries in fire stations and facilities; Explain general guidelines for tool and equipment safety; Describe ways to maintain safety in training; State the practices a Firefighter I uses for emergency scene preparedness and safety; Summarize general guidelines for scene management including highway incidents, crowd control, and cordoning off emergency scenes; Explain the importance of personnel accountability; Identify types of emergency scene lighting equipment; Describe the precautions to take when working with lighting equipment; Describe how to operate lighting equipment.  <b>Practical:</b> Respond to an incident, correctly mounting and dismounting an apparatus; Wearing appropriate PPE, including reflective vest, demonstrate scene management at roadway incidents using traffic and scene control devices; Deploy lighting equipment.	5	3	8

Fire Service Communications	4.2.1 4.2.2 4.2.3 4.2.4	Chapter 2 Communications Pages 57-71	Chapter 4 Fire Service Communications Pages 131-154	<p><b>Cognitive:</b> Explain the procedures for receiving emergency and nonemergency external communications; Describe the information required to dispatch emergency services; Describe the systems used for internal communications, Explain radio limitations that may impact internal communications; Describe radio procedures used for internal communications; Handle emergency and nonemergency calls.</p> <p><b>Practical:</b> Use portable radio for routine and emergency traffic.</p>	2	1	3
Building Construction	4.3.4 4.3.10 4.3.12	Chapter 3 Building Construction Pages 77-111	Chapter 6 Building Construction Pages 191-223	<p><b>Cognitive:</b> Describe the impact of fire on common building materials; Explain the impact of fire on construction classifications; List the main types of occupancy classifications; Describe the basic construction of building components.</p>	3	0	3
Fire Behavior	4.3.10 4.3.11 4.3.12	Chapter 4 Fire Dynamics Pages 117-176	Chapter 5 Fire Behavior Pages 158-184	<p><b>Cognitive:</b> Explain the science of fire as it relates to energy, forms of ignition, and models of combustion; Describe the impact of thermal energy on heat, temperature, and heat transfer; Recognize the physical states of fuel; Explain the relationship between oxygen content and life safety; Identify the products of self-sustained chemical reactions; Explain the factors that affect fire development; Recognize signs, causes, and effects of rapid fire development, Describe the methods through which firefighting operations can influence fire behavior.</p>	4	0	4
Personal Protective Equipment and Self-Contained Breathing Apparatus	4.1.2 4.3.1 4.5.1	Chapter 5 Firefighter Personal Protective Equipment Pages 183-228	Chapter 3 Personal Protective Equipment Pages 68-125	<p><b>Cognitive:</b> Describe the purpose of personal protective equipment; Describe characteristics of each type of personal protective equipment; Summarize guidelines for the care of personal protective clothing; Explain the safety considerations for PPE; Identify respiratory hazards; Identify types of respiratory protection equipment; Describe the limitations of respiratory protection equipment; Explain the methods for storing respiratory protection equipment; Describe general donning and doffing considerations for protective breathing apparatus; Summarize general considerations for protective breathing apparatus inspections and care; Summarize safety precautions for refilling SCBA cylinders; Explain procedures for replacing SCBA cylinders; Explain safety precautions for SCBA use; Describe nonemergency and emergency exit indicators; Describe nonemergency exit techniques.</p> <p><b>Practical:</b> Demonstrate the method for donning structural personal protective clothing for use at an emergency; With structural personal protective clothing in place, demonstrate the over-the-head, coat, and seated methods for donning a SCBA; Doff PPE including respiratory protection and prepare for reuse; Demonstrate the steps for inspecting a SCBA; Demonstrate the steps for cleaning and sanitizing a SCBA.</p>	4	6	10

Portable Fire Extinguishers	4.3.16	Chapter 6 Portable Fire Extinguishers Pages 254-268	Chapter 7 Portable Fire Extinguishers Pages 229-263	<p><b>Cognitive:</b> Explain portable fire extinguisher classifications; Describe types of portable fire extinguishers; Define the ratings in a portable fire extinguisher rating system; Explain the considerations taken when selecting and using portable fire extinguishers; Identify procedures used for the inspection, care, and maintenance of portable fire extinguishers.</p> <p><b>Practical:</b> Transport fire extinguisher to location of the fire; Extinguish a Class A fire with a stored-pressure water-type fire extinguisher; Extinguish a Class A fire with a multipurpose dry-chemical fire extinguisher; Extinguish a Class B flammable liquid fire with a dry-chemical fire extinguisher; Extinguish a Class B flammable liquid fire with a stored-pressure foam fire extinguisher; Operate a carbon dioxide fire extinguisher; Operate a wet chemical fire extinguisher.</p>	2	3	5
Ropes and Knots	4.3.20 4.5.1	Chapter 7 Ropes and Knots Pages 277-296	Chapter 9 Ropes and Knots Pages 293-324	<p><b>Cognitive:</b> Compare and contrast the characteristics of life safety rope and utility rope; Summarize basic guidelines for rope maintenance; Explain reasons for placing rope out of service; Describe webbing and webbing construction; Describe parts of a rope and considerations in tying a knot; Describe knot characteristics and knot elements; Describe characteristics of knots commonly used in the fire service; Select commonly used rope hardware for specific applications; Summarize hoisting safety considerations.</p> <p><b>Practical:</b> Inspect, clean, and store rope. Tie the following: overhand knot, bowline, clove hitch, clove hitch around an object, rescue knot, figure-eight, figure-eight bend, figure-eight on a bight, figure-eight follow through, Becket bend, water knot. Hoist the following: axe, pike pole, roof ladder, dry hoseline, charged hoseline, power saw.</p>	2	4	6
Search and Rescue	4.2.4 4.3.1	Chapter 9 Structural Search and Rescue Pages 450-475	Chapter 12 Search and Rescue Pages 429-469	<p><b>Cognitive:</b> Summarize the impact of building construction and floor plans on structural search techniques; Explain size-up and situational awareness considerations during structural searches; Summarize safety guidelines for structural search and rescue; Differentiate between primary and secondary search techniques; Recognize basic search methods.</p> <p><b>Practical:</b> Demonstrate the procedures for conducting a primary and secondary search; Demonstrate an incline drag, webbing drag, cradle-in-arms lift/carry, seat/lift carry, and extremities lift/carry.</p>	2	4	6
Firefighter Survival	4.3.5 4.3.9	Chapter 9 Structural Search and Rescue Pages 433-450	Chapter 18 Firefighter Survival Pages 696-724	<p><b>Cognitive:</b> Explain firefighter survival methods; Explain what survival actions firefighters can take when needed; Describe the actions of a Rapid Intervention Team when locating a downed firefighter.</p> <p><b>Practical:</b> Demonstrate the actions required for transmitting a MAYDAY report; Demonstrate the proper procedures for a SCBA air emergency; Demonstrate the actions required for withdrawing from a hostile environment with a hoseline; Demonstrate low profile maneuvers without removing SCBA; Demonstrate the method for breaching an interior wall; Demonstrate the steps for disentangling from debris or wires.</p>	2	4	6



Forcible Entry	4.3.4 4.5.1	Chapter 9 Forcible Entry Pages 371-411	Chapter 8 Firefighter Tools and Equipment Pages 267-287  Chapter 10 Forcible Entry Pages 329-370	<p><b>Cognitive:</b> Explain the basic principles of forcible entry; Describe the basic construction of locksets; List and describe the tools used for forcible entry; Describe considerations a firefighter must take when using a forcible entry tool; Indicate steps needed to care for and maintain forcible entry tools; Explain considerations firefighter must take when forcing entry through various types of windows and covers; Describe forcible entry methods for breaching walls and floors; Indicate methods for forcing fences and gates</p> <p><b>Practical:</b> Demonstrate ways to force entry through various types of doors; Identify considerations that need to be taken when forcing entry through locks, padlocks, overhead doors, and fire doors; Demonstrate forcible entry methods used for windows; Demonstrate forcible entry methods for breaching walls and floors; Clean, inspect, and maintain hand tools, power tools, and equipment.</p>	3	5	8
Ladders	4.3.6 4.3.12 4.5.1	Chapter 8 Ground Ladders Pages 315-343	Chapter 11 Ladders Pages 375-424	<p><b>Cognitive:</b> Describe different construction types of ground ladders; Identify the parts of a ladder including markings and labels; Recognize the types of ladders used in the fire service; Explain the considerations addressed by ladder inspection, cleaning, and maintenance; Describe safety guidelines used when handling ladders; Explain considerations taken when selecting, lifting, and lowering a ladder; Identify basic considerations and requirements for ground ladder placement.</p> <p><b>Practical:</b> Demonstrate the various methods of carrying a ladder; Demonstrate the various methods for raising and lowering a ground ladder; Compare procedures for moving a ground ladder; Demonstrate the methods for securing a ground ladder; Describe ladder climbing considerations; Demonstrate what methods can be used to work from a ladder; Demonstrate methods used for assisting a victim down a ladder; Clean, inspect, and maintain a ladder.</p>	2	8	10
Ventilation	4.3.11 4.3.12 4.5.1	Chapter 11 Tactical Ventilation Pages 493-526	Chapter 13 Ventilation Pages 473-521	<p><b>Cognitive:</b> Describe reasons for ventilation; Identify considerations that affect the decision to ventilate; Explain the critical fire behavior indicators present during ventilation; Define horizontal and vertical ventilation; Explain the means of achieving horizontal and vertical ventilation; Describe the types of horizontal and vertical ventilation; Explain the effects of building systems on ventilation; List the tactical priorities in structural firefighting operations and how the tactical priorities affect ventilation; Describe ventilation using mechanical positive and negative pressure as well as hydraulic ventilation.</p> <p><b>Practical:</b> Perform the following: sound a roof, use a power saw to cut an opening, use an axe to cut an opening, make a trench cut using a rotary saw.</p>	3	5	8

Water Supply	4.3.15	Chapter 13 Hose Operations and Hose Streams Pages 587-607	Chapter 14 Water Supply Pages 525-550	<p><b>Cognitive:</b> Explain the ways water supply systems components are used by firefighters; Describe types of fire hydrants and hydrant markings; Explain fire hydrant operation and inspection considerations; Explain alternative water supply sources and methods of access; Describe methods used for rural water supply operations.</p> <p><b>Practical:</b> Connect supply hose to a hydrant using forward and reverse hydrant lays; Draft from a static water source; Deploy portable water tanks.</p>	2	4	6
Fire Hose and Streams	4.3.8 4.3.10 4.3.15 4.5.2	Chapter 12 Fire Hose Pages 541-566  Chapter 13 Hose Operations and Hose Streams Pages 607-631	Chapter 15 Fire Hose, Appliances, and Nozzles Pages 555-590  Chapter 16 Supply Line and Attack Line Evolutions Pages 597-643  Chapter 17 Fire Suppression Pages 656-669	<p><b>Cognitive:</b> Explain basic fire hose characteristics; Describe different causes of and prevention methods for hose damage; Identify basic inspection, care, and maintenance methods for fire hose; Compare various uses for hose appliances and tools; Recognize different methods for handling hoselines; Describe the various methods of advancing a hoseline; List the considerations that can impact operating attack hoselines; Explain the way vaporization and stream relate to the extinguishment properties of water; Identify the factors that create pressure loss or gain; Describe the impact water hammer has on fire streams and prevention of water hammer; Explain fire stream patterns and their possible limiting factors; Describe the three types of fire stream nozzles; Compare the different types of nozzle control valves; Describe the factors in operating and maintaining handline nozzles; Describe steps taken when supporting fire protection systems at protected structures; Describe the characteristics of the various master stream devices; Explain considerations when deploying, supplying, and staffing master streams.</p> <p><b>Practical (Describe and perform):</b> <b>Hose Basics:</b> Couple and uncouple hose; Make a straight hose roll &amp; doughnut hose roll; Advance a hose load; Extend a hoseline; Operate a fog-stream, broken-stream, and solid stream nozzle; Replace a burst section of hose. <b>Hose Loads:</b> Make a flat, accordion, horseshoe, pre-connected, triple-layer, and minuteman hose load. <b>Hose Lays:</b> Make a forward and reverse hose lay; Deploy a wye-equipped hose during a reverse lay. <b>Hoseline Advance into a Structure:</b> Advance a charged line into a structure (1) using the line drag, (2) up and down an interior stairway, (3) up a ladder into a window. <b>Advance a Hoseline from a Standpipe:</b> Connect to a standpipe and advance an attack line onto a floor. <b>Operate a Charged Hoseline:</b> (1) Operate a charged hoseline from a ladder, (2) a one-firefighter attack line, (3) a one-firefighter large hoseline (exposure protection), (4) two-firefighter operation of a large attack line. <b>Connect to a Fire Department Connection:</b> Connect supply hose to a fire department connection. <b>Supply a Master Stream Device:</b> Deploy and operate a portable master stream device. <b>Hose Testing:</b> Service test a fire hose.</p>	4	8	12

Fire Suppression— Structure Fires	4.3.8 4.3.10	Chapter 14 Fire Suppression Pages 669-687 & 704-707	Chapter 17 Fire Suppression Pages 647-679	<p><b>Cognitive:</b> Describe initial factors to consider when suppressing structure fires; Summarize considerations taken when making entry; Describe direct attack, indirect attack, combination attack, and gas cooling techniques; Describe safety considerations that must be identified for upper level structure fires; Explain actions taken when attacking below grade structure fires; Describe situations that may require suppression of Class C fires; Identify hazards associated with suppressing Class C fires; Describe actions associated with suppressing Class D fires. Compare methods used to suppress fires in stacked and piled materials, small unattached structures, and trash containers.</p> <p><b>Practical:</b> Attack a structure fire using direct, indirect, or combination attack; Attack an interior structure fire from above, below, and at grade level; Attack a fire in a stacked or piled material.</p>	3	Interior Structure Fire Attack 8  Stacked or Piled Material Fire Attack 2	13
Fire Suppression— Vehicle Fires	4.3.7	Chapter 14 Fire Suppression Pages 694-704	Chapter 17 Fire suppression Pages 679-687	<p><b>Cognitive:</b> Describe the types of motor vehicles; Describe the characteristics of vehicle fires; Describe the tactics used to suppress vehicle fires; Describe how to overhaul a vehicle fire.</p> <p><b>Practical:</b> Attack a passenger vehicle fire.</p>	1	4	5
Fire Suppression— Wildland/Ground Cover Fires	4.3.19	Chapter 14 Fire Suppression Pages 707-717	Chapter 21 Wildland & Ground Cover Fires Pages 787-808	<p><b>Cognitive:</b> Summarize the main influences on ground cover fires; Describe elements that influence ground cover fire behavior; Identify the parts of a ground cover fire; Describe protective clothing and equipment used in fighting ground cover fires; Describe methods used to attack ground cover fires; Summarize safety principles and practices when fighting ground cover fires.</p> <p><b>Practical:</b> Attack a ground cover fire.</p>	1	2	3
Fire Suppression— Control Building Utilities/Energized Utility Fires	4.3.18	Chapter 14 Fire Suppression Pages 687-693	Chapter 2 Firefighter Health and Safety Pages 59-61  Chapter 17 Fire Suppression Pages 687-690	<p><b>Cognitive:</b> Discuss methods of fire control through exposure protection and controlling building utilities; Describe strategies for energized utility fires.</p> <p><b>Practical:</b> Shut off building utilities.</p>	1	1	2

Salvage and Overhaul	4.3.13 4.3.14 4.3.17 4.3.21 4.5.1	Chapter 15 Overhaul, Property Conservation, and Scene Preservation Pages 740-763  Chapter 10 Structural Search and Rescue Pages 440-449	Chapter 19 Salvage and Overhaul Pages 729-762	<p><b>Cognitive:</b> Explain the philosophy of loss control; Describe the ways pre-incident planning impacts loss control; Determine appropriate salvage procedures; Compare and contrast different types of salvage covers; Explain ways to fold, roll, spread, and improvise with salvage covers; Describe ways to cover openings during salvage operations; Explain methods used to maintain fire safety during overhaul; Describe factors that influence locating hidden fires; Identify different overhaul procedures; Describe the tools needed for overhaul; Indicate steps needed to care for and maintain tools used for overhaul; Describe the ways a thermal imager can be used during overhaul; Describe the various uses for an air monitor; Describe the basic operation of an air monitor; Describe the recognition and emergency actions to be taken upon the activation of the high or low levels alarms; Explain ways to recognize obvious signs of the area of origin; Describe the relationship between fire cause classifications and cause determination; Recognize signs of arson; Describe the importance of preserving evidence; Explain techniques for preserving evidence.</p> <p><b>Practical:</b> Clean, inspect, and repair a salvage cover; Roll a salvage cover for a one firefighter spread; Fold a salvage cover for a one firefighter spread; Fold a salvage cover for a two firefighter spread and a balloon throw; Construct a water chute with and without pike poles; Construct a catchall; Operate a sprinkler system control valve; Control a flowing sprinkler; Operate an air monitor; Recognize air monitor alarms and react accordingly.</p>	2	3	5
Vehicle Rescue and Extrication	5.4.1	Chapter 17 Technical Rescue Support and Vehicle Extrication Operations Pages 823-868	Chapter 24 Vehicle Rescue and Extrication Pages 887-917	<p><b>Cognitive:</b> Describe the types of rescue tools and equipment; Explain the uses and limitations of each type of rescue tool; Identify the role of a fire department during vehicle extrication; Describe safety considerations that must be identified and mitigated during vehicle extrication; Explain the use of cribbing material during vehicle extrication; Describe the methods used for gaining access to victims during vehicle extrication.</p> <p><b>Practical:</b> Prevent horizontal movement of a vehicle using wheel chocks, Stabilize a vehicle using cribbing, lifting jacks, ropes/webbing, and a vehicle on its side using a buttress tension system; Remove a windshield, tempered glass, roof, and doors.</p>	2	4	6
<b>TOTAL FIREFIGHTER I (NFPA 1001)</b>					<b>53</b>	<b>79</b>	<b>132</b>

FIREFIGHTER I & II JOB PERFORMANCE REQUIREMENTS – HAZARDOUS MATERIALS AWARENESS (NFPA 1072)					
NFPA 1072 Standard	IFSTA Chapter Title Page #	J&B Chapter Title Page #	Cognitive Hours	Practical Hours	Total Hours
4.1.1 4.1.2 4.1.3 4.2.1 4.3.1 4.4.1	Chapter 24 Analyzing the Incident Pages 1047-1213	Chapter 29: HazMat Regulations, Standards & Laws - Pages 1061-1074 Chapter 30: Recognizing & Identifying Hazards – Pages 1075-1105 Chapter 31: Properties & Effects – Pages 1107-1128 Chapter 32: Understanding Hazards – Pages 1131-1163	8	0	8
FIREFIGHTER I & II JOB PERFORMANCE REQUIREMENTS – HAZARDOUS MATERIALS AWARENESS (NFPA 1072)					
NFPA 1072 Standard	IFSTA Chapter Title Page #	J&B Chapter Title Page #	Cognitive Hours	Practical Hours	Total Hours
5.1.1 5.1.2 5.1.3 5.1.4 5.1.5 5.2.1 5.3.1 5.4.1 5.5.1 5.6.1 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5 6.1.6 6.2.1 6.3.1 6.4.1 6.5.1 6.6.1 6.7.1 6.8.1 6.9.1	Chapter 25 Action Options and Response Objectives Pages 1217-1302  Chapter 26 Personal Protective Equipment, Product Control, and Decontamination Pages 1305-1381	Chapter 33: Estimating Potential Harm and Planning a Response Pages 1165-1190 Chapter 34: Implementing the Planned Response Pages 1193-1213 Chapter 35: Hazardous Materials Responder Health and Safety Pages 1215-1235 Chapter 36: Hazardous Materials Responder PPE Pages 1237-1268 Chapter 37: Product Control Pages 1271-1290	8	8	16
<b>TOTAL HAZARDOUS MATERIALS AWARENESS/OPERATIONS (NFPA 1072)</b>			<b>16</b>	<b>8</b>	<b>24</b>

**COURAGE TO BE SAFE SIXTEEN LIFE SAFETY INITIATIVES OBJECTIVES**

1. Define and advocate the need for a cultural change within the fire service relating to safety; incorporating leadership, management, supervision, accountability and personal responsibility.
2. Discuss the personal and organizational accountability for health and safety throughout the fire service.
3. Explain the focus on integration of risk management with incident management at all levels, including strategic, tactical and planning responsibilities.
4. Describe the importance of empowering all firefighters to stop unsafe practices.
5. Explain the significance of developing and implementing national standards for training, qualifications, and certification (including regular recertification) that are equally applicable to all firefighters based on the duties they are expected to perform.
6. Discuss the importance of developing and implementing national medical and physical fitness standards that are equally applicable to all firefighters, based on the duties they are expected to perform.
7. Explain the impact of a national research agenda and data collection system that relates to the 16 Firefighter Life Safety Initiatives.
8. Describe the utilization of available technology wherever it can produce higher levels of health and safety.
9. Discuss the significance of thoroughly investigating all firefighter fatalities, injuries, and near-misses.
10. Explain how grant programs should support the implementation of safe practices and procedures and/or mandate safe practices as an eligibility requirement.
11. Explain how national standards for emergency response policies and procedures should be developed and championed.
12. Discuss how national protocols for response to violent incidents should be developed and championed.
13. Describe why firefighters and their families must have access to counseling and psychological support.
14. Discuss how public education must receive more resources and be championed as a critical fire and life safety program.
15. Explain why advocacy must be strengthened for the enforcement of codes and the installation of home fire sprinklers.
16. Discuss how safety must be a primary consideration in the design of apparatus and equipment.

4765-20-02			<b>Courage to Be Safe: 16 Life Safety Initiatives</b>	4	0	4
			<b>TOTAL FIREFIGHTER I (NFPA 1001)</b>	73	87	160