

Law, Public Safety, Corrections and Security Career Cluster
Applications of Firefighting
Course Number: 43.44000

Course Description:

This course, along with the prerequisite courses, is designed to meet the requirements of NFPA® 1001, Fire Fighter I. After completing this course, the student will be able to sit for the exam to certify as a Firefighter I per National Fire Protection Association (NFPA®) 1001, Standard for Fire Fighter Professional Qualifications. This course is also based on the Basic Firefighting Training Program from the GA Public Safety Training Center (GPSTC). GPSTC has teacher-trainer resources (including skill sheets for those that are required) and recommended text. The prerequisites for this course are Introduction to Law, Public Safety Corrections and Security, and Essentials of Fire and Emergency Services.

The Applications of Firefighting course requires strenuous physical activity. Students, parents, and school officials are encouraged to review and discuss the physical requirements prior to the student's enrollment in the course. Schools may choose to recommend that a student obtain a sports physical prior to the start of course activities. Components of this course require a student to be eighteen years of age for participation and completion of that component (i.e. live fire).

Course Standard 1

LPSCS-AF-1

The following standard is included in all CTAE courses adopted for the Career Cluster/Pathways. Teachers should incorporate the elements of this standard into lesson plans during the course. The topics listed for each element of the standard may be addressed in differentiated instruction matching the content of each course. These elements may also be addressed with specific lessons from a variety of resources. This content is not to be treated as a unit or separate body of knowledge but rather integrated into class activities as applications of the concept.

Standard: Demonstrate employability skills required by business and industry.

The following elements should be integrated throughout the content of this course.

1.1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.

Person-to-Person Etiquette	Telephone and Email Etiquette	Cell Phone and Internet Etiquette	Communicating At Work	Listening
Interacting with Your Boss	Telephone Conversations	Using Blogs	Improving Communication Skills	Reasons, Benefits, and Barriers
Interacting with Subordinates	Barriers to Phone conversations	Using Social Media	Effective Oral Communication	Listening Strategies
Interacting with Co-workers	Making and Returning Calls		Effective Written Communication	Ways We Filter What We Hear
Interacting with Suppliers	Making Cold Calls		Effective Nonverbal Skills	Developing a Listening Attitude
	Handling Conference Calls		Effective Word Use	Show You Are Listening
	Handling Unsolicited Calls		Giving and Receiving Feedback	Asking Questions
				Obtaining Feedback
				Getting Others to Listen

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Nonverbal Communication	Written Communication	Speaking	Applications and Effective Résumés
Communicating Nonverbally	Writing Documents	Using Language Carefully	Completing a Job Application
Reading Body Language and mixed Messages	Constructive Criticism in Writing	One-on-One Conversations	Writing a Cover Letter
Matching Verbal and Nonverbal communication		Small Group Communication	Things to Include in a Résumé
Improving Nonverbal Indicators		Large Group Communication	Selling Yourself in a Résumé
Nonverbal Feedback		Making Speeches	Terms to Use in a Résumé
Showing Confidence Nonverbally		Involving the Audience	Describing Your Job Strengths
Showing Assertiveness		Answering Questions	Organizing Your Résumé
		Visual and Media Aids	Writing an Electronic Résumé
		Errors in Presentation	Dressing Up Your Résumé

1.2 Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.

Teamwork and Problem Solving	Meeting Etiquette
Thinking Creatively	Preparation and Participation in Meetings
Taking Risks	Conducting Two-Person or Large Group Meetings
Building Team Communication	Inviting and Introducing Speakers
	Facilitating Discussions and Closing
	Preparing Visual Aids
	Virtual Meetings

1.3 Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations.

Problem Solving	Customer Service	The Application Process	Interviewing Skills	Finding the Right Job
Transferable Job Skills	Gaining Trust and Interacting with Customers	Providing Information, Accuracy and Double Checking	Preparing for an Interview	Locating Jobs and Networking
Becoming a Problem Solver	Learning and Giving Customers What They Want	Online Application Process	Questions to Ask in an Interview	Job Shopping Online
Identifying a Problem	Keeping Customers Coming Back	Following Up After Submitting an Application	Things to Include in a Career Portfolio	Job Search Websites
Becoming a Critical Thinker	Seeing the Customer's Point	Effective Résumés:	Traits Employers are Seeking	Participation in Job Fairs
Managing	Selling Yourself and the Company	Matching Your Talents to a Job	Considerations Before Taking a Job	Searching the Classified Ads
	Handling Customer Complaints	When a Résumé Should be Used		Using Employment Agencies
	Strategies for Customer Service			Landing an Internship
				Staying Motivated to Search

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1.4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.

Workplace Ethics	Personal Characteristics	Employer Expectations	Business Etiquette	Communicating at Work
Demonstrating Good Work Ethic	Demonstrating a Good Attitude	Behaviors Employers Expect	Language and Behavior	Handling Anger
Behaving Appropriately	Gaining and Showing Respect	Objectionable Behaviors	Keeping Information Confidential	Dealing with Difficult Coworkers
Maintaining Honesty	Demonstrating Responsibility	Establishing Credibility	Avoiding Gossip	Dealing with a Difficult Boss
Playing Fair	Showing Dependability	Demonstrating Your Skills	Appropriate Work Email	Dealing with Difficult Customers
Using Ethical Language	Being Courteous	Building Work Relationships	Cell Phone Etiquette	Dealing with Conflict
Showing Responsibility	Gaining Coworkers' Trust		Appropriate Work Texting	
Reducing Harassment	Persevering		Understanding Copyright	
Respecting Diversity	Handling Criticism		Social Networking	
Making Truthfulness a Habit	Showing Professionalism			
Leaving a Job Ethically				

1.5 Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills.

Expected Work Traits	Teamwork	Time Management
Demonstrating Responsibility	Teamwork Skills	Managing Time
Dealing with Information Overload	Reasons Companies Use Teams	Putting First Things First
Transferable Job Skills	Decisions Teams Make	Juggling Many Priorities
Managing Change	Team Responsibilities	Overcoming Procrastination
Adopting a New Technology	Problems That Affect Teams	Organizing Workspace and Tasks
	Expressing Yourself on a Team	Staying Organized
	Giving and Receiving Constructive Criticism	Finding More Time
		Managing Projects
		Prioritizing Personal and Work Life

1.6 Present a professional image through appearance, behavior and language.

On-the-Job Etiquette	Person-to-Person Etiquette	Communication Etiquette	Presenting Yourself
Using Professional Manners	Meeting Business Acquaintances	Creating a Good Impression	Looking Professional
Introducing People	Meeting People for the First Time	Keeping Phone Calls Professional	Dressing for Success
Appropriate Dress	Showing Politeness	Proper Use of Work Email	Showing a Professional Attitude
Business Meal Functions		Proper Use of Cell Phone	Using Good Posture
Behavior at Work Parties		Proper Use in Texting	Presenting Yourself to Associates
Behavior at Conventions			Accepting Criticism

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International Etiquette			Demonstrating Leadership
Cross-Cultural Etiquette			
Working in a Cubicle			

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence L9-10RST 1-10 and L9-10WHST 1-10:

Georgia Standards of Excellence ELA/Literacy standards have been written specifically for technical subjects and have been adopted as part of the official standards for all CTAE courses.

Course Standard 2

LPSCS-AF-2

Evaluate the organizational structure and principles, purpose, and general operational procedures of the fire service.

- 2.1 Evaluate major events in history that have impacted the fire service and the delivery of service, beginning with the colonial days.
- 2.2 Differentiate between multi-aid agreements and automatic aid agreements.
- 2.3 Adhere to the chain of command and standard operating procedures (SOP) applying to fire department.
- 2.4 Identify and explain the function of the various fire companies.
- 2.5 Classify the roles of firefighters and the primary roles of fire service personnel.

Course Standard 3

LPSCS-AF-3

Follow and apply safety guidelines specific to firefighter safety and health issues.

- 3.1 Adhere to the standards of the National Fire Protection Association (NFPA) and the Occupational Safety and Health Administration (OSHA) as they relate to firefighter health and safety.
- 3.2 Summarize the International Fire Safety Training Association (IFSTA) Principles of Risk Management and determine ways to prevent firefighter injuries.
- 3.3 Analyze safety in a fire station and establish goals of a safety program.
- 3.4 Maintain and service equipment used in training and determine ways to uphold safety regulations during training.
- 3.5 Evaluate the importance of personnel accountability and the importance of employee assistance and wellness programs.
- 3.6 Demonstrate emergency scene preparedness and safety.
- 3.7 Summarize general guidelines for scene management including highway incidents, crowd control, and taping off emergency scenes.
- 3.8 Demonstrate setting up and operating in work areas at an incident using traffic and scene control devices.
- 3.9 Demonstrate responding to an incident, safely and correctly mounting and dismounting an apparatus.
- 3.10 Summarize basic interior operations techniques.
- 3.11 Analyze emergency escape and rapid intervention.

Course Standard 4

LPSCS-AF-4

Analyze fire chemistry including physical and chemical changes and reactions that occur with fire and the factors involved in fire development.

- 4.1 Analyze physical and chemical changes of matter related to fire and the difference between heat and temperature.
- 4.2 Evaluate the modes of combustion, the fire triangle, and the fire tetrahedron.
- 4.3 Assess sources of heat energy and the transmission of heat.
- 4.4 Clarify how the physical states of fuel affect the combustion process and how oxygen concentration affects the combustion process.
- 4.5 Analyze the self-sustained chemical reaction involved in the combustion process and the common products of combustion.
- 4.6 Differentiate between classification of fires and the stages and factors of fire development within a compartment.
- 4.7 Summarize methods used to control and extinguish fire.

Course Standard 5

LPSCS-AF-5

Research the various components of basic building construction, understand the effects of fire on common building materials, and identify the indications of imminent building collapse and construction hazards.

- 5.1 Analyze common building materials, construction types and the effect fire has on the structural integrity of the construction type.
- 5.2 Identify and describe the primary strengths and weaknesses of construction, and the dangerous building conditions created by a fire or by actions taken while trying to extinguish a fire.
- 5.3 Evaluate indicators of building collapse and the action that should be taken when imminent building collapse is suspected.
- 5.4 Assess hazards associated with lightweight and truss construction.

Course Standard 6

LPSCS-AF-6

Utilize and maintain various articles of protective clothing and self-contained breathing apparatus (SCBA).

- 6.1 Identify the purpose and guidelines for care of personal protective clothing and equipment.
- 6.2 Differentiate characteristics of the most common respiratory hazards associated with fires and other emergencies.
- 6.3 Determine physical, medical, and mental factors that affect the firefighter's ability to utilize respiratory protection effectively.
- 6.4 Evaluate effective air management for the firefighter.
- 6.5 Analyze equipment and air supply limitations of SCBA and identify basic SCBA assemblies.
- 6.6 Distinguish among characteristics of air-purifying respirators.
- 6.7 Evaluate donning and doffing considerations for SCBA and the proper storage of protective breathing apparatus.
- 6.8 Summarize general SCBA items to check as a precaution as well as daily, weekly, monthly, and annual inspections.
- 6.9 Adhere to safety precautions for SCBA use and for refilling SCBA cylinders, including filling a SCBA cylinder from a cascade system.

- 6.10 Inspect Personal Protective Equipment (PPE) and SCBA for use, and then be ready to don PPE and SCBA for use at an emergency. Doff PPE and SCBA, and then clean and sanitize and prepare for reuse.

Course Standard 7

LPSCS-AF-7

Operate portable fire extinguishers effectively and safely.

- 7.1 Differentiate among classifications of fires and the most common agents used to extinguish them, and identify the mechanisms by which portable extinguishers expel their contents.
- 7.2 Identify factors to consider when selecting the proper fire extinguisher to use and the types of extinguishers that are available including metal fires.
- 7.3 Evaluate the portable fire extinguisher rating system and summarize procedures that should be a part of every fire extinguisher inspection.
- 7.4 Demonstrate knowledge of items to check immediately before using a portable fire extinguisher, and the PASS method of application.
- 7.5 Determine how to handle fire extinguishers that have been damaged or are obsolete.
- 7.6 Operate the following types of extinguishers: Stored pressure water, Dry chemical (ABC), and Carbon dioxide (CO₂).

Course Standard 8

LPSCS-AF-8

Utilize and care for the appropriate and most common types of ropes and knots used in the fire service.

- 8.1 Compare and contrast the characteristics of life-safety rope and utility rope.
- 8.2 Summarize the criteria and procedures for reusing and storing life safety rope.
- 8.3 Assess rope materials, rope construction, rope maintenance, rope cleaning and storage, the parts of a rope, and the things to consider when using a knot.
- 8.4 Identify and describe the characteristics and elements of knots commonly used in the fire service.
- 8.5 Examine webbing and webbing construction.
- 8.6 Demonstrate selecting commonly-used rope hardware for specific applications.
- 8.7 Summarize hoisting safety considerations and rescue rope and harness.
- 8.8 Demonstrate coiling and uncoiling a rope.
- 8.9 Demonstrate tying the following items:
 - a single overhand knot
 - a bowline
 - a clove hitch and clove hitch around an object
 - a figure eight, figure eight bend, and figure eight on a bight
 - a becket bend
- 8.10 Demonstrate hoisting a pike pole, a roof ladder, a dry hose line, a charged hose line, and a power saw.

Course Standard 9

LPSCS-AF-9

Operate as a member of a team following safety guidelines to enter a burning building for search and rescue operations while being prepared to perform basic victim removal.

- 9.1 Distinguish between rescue and extrication operations.
- 9.2 Summarize safety guidelines for search and rescue personnel operating within a burning building.
- 9.3 Identify and explain the objectives for conducting a building search operation, including a primary and secondary search.
- 9.4 Review the actions a firefighter should take when in distress and the actions that should be taken by a rapid intervention crew.
- 9.5 Demonstrate operating emergency power and lighting equipment to illuminate the emergency scene.
- 9.6 Demonstrate exiting a hazardous area and demonstrate appropriate victim removal methods, including:
 - Incline drag, webbing, and blanket drags
 - Cradle-in-arms lift/carry, one rescuer method
 - Seat lift/carry, two rescuer method
 - Extremities lift/carry method with two rescuers
 - Chair lift/carry method 1 with two rescuers
 - Chair lift/carry method 2 with two rescuers

Course Standard 10

LPSCS-AF-10

Utilize forcible entry techniques through various types of doors, windows, padlocks, and walls to accomplish quick access to a structure in a safe manner.

- 10.1 Demonstrate selecting appropriate cutting tools for specific applications including: manual and hydraulic prying tools; pushing/pulling tools; and prying tools.
- 10.2 Summarize safety rules, correct methods for carrying, general care, and maintenance for forcible entry tools.
- 10.3 Determine items and methods to look for in sizing up a door for possible forcible entry including:
 - Characteristics of basic types of locks
 - Rapid-entry lockbox systems
 - A padlock
 - Inward swinging door –2 firefighter method
 - Outward swinging door –wedge-end method
 - Characteristics of various types of wooden and metal swinging doors
 - Characteristics of various types of sliding doors, revolving doors, and overhead doors
- 10.4 Investigate how fire doors operate.
- 10.5 Determine ways of gaining entry through gates and fences.
- 10.6 Identify and describe hazards for forcible entry through window and the types of windows a firefighter might encounter including:
 - Double-hung window
 - Glass pane
 - Lexan®

10.7 Determine techniques for breaching walls and floors through forced entry including :

- Hardwood floors
- Wood frame wall (Type V Construction)
- Metal wall with power tools
- Masonry wall hand tools

10.8 Demonstrate cleaning, inspecting, and maintaining hand tools, power tools and other equipment.

10.9 Demonstrate forced entry using the:

- Through-the-lock method
- Through-the-lock method using the K-tool
- Through-the-lock method using the A-tool
- Through padlocks

Course Standard 11

LPSCS-AF-11

Utilize various fire service ladders and perform ladder inspections, and maintenance.

- 11.1 Identify the parts of a ladder and the materials used for ladder construction.
- 11.2 Analyze the types of ground ladders used in the fire service and the required ladder maintenance, inspection and cleaning.
- 11.3 Summarize items to check when inspecting and service testing ladders, as well as factors that contribute to safe ladder operation.
- 11.4 Determine how to select the proper ladder for the job.
- 11.5 Demonstrate proper procedures for positioning, moving, lifting, lowering, heeling, and tying in ground ladders, and the proper precautions that should be taken before raising a ladder.
- 11.6 Summarize items to consider before removing and replacing ladders on an apparatus.
- 11.7 Demonstrate adhering to guidelines for climbing ladders.
- 11.8 Compare and demonstrate the methods for lowering conscious or unconscious victims down ground ladders.
- 11.9 Identify and explain the various types of ladder carries, including the one firefighter low-shoulder method; the two firefighter low-shoulder method; and the three firefighter flat-shoulder method.
- 11.10 Demonstrate tying the halyard.
- 11.11 Identify and demonstrate the various methods of raising and utilizing a ladder including:
 - One firefighter method
 - Two firefighter method
 - Two firefighter bean raise
 - Three or Four firefighter flat raise
 - Deploy a roof ladder – One firefighter method
 - Pivot a ladder – Two firefighter method
 - Shift a ladder – One firefighter method
 - Shift a ladder – Two firefighter method
 - Leg lock on a ground ladder
- 11.12 Demonstrate selecting, carrying, and raising a ladder properly for various types of activities.

Course Standard 12

LPSCS-AF-12

Utilize types of ventilation within a structure considering various situations.

- 12.1 Determine reasons for fire-ground ventilation and all of the considerations that must be taken into account when making the decision to ventilate.
- 12.2 Evaluate vertical ventilation and the safety precautions that must be observed when undertaking this type of ventilation procedure.
- 12.3 Identify and explain ventilation considerations for various types of roofs, including roof coverings and existing roof openings; and the warning signs of an unsafe roof.
- 12.4 Analyze factors that can reduce the effectiveness of vertical ventilation.
- 12.5 Investigate horizontal and strip or trench ventilation and the procedures for ventilation of a conventional basement.
- 12.6 Distinguish between the advantages and disadvantages of forced ventilation.
- 12.7 Compare and contrast negative-pressure and positive-pressure ventilation.
- 12.8 Evaluate hydraulic ventilation and the disadvantages of using this type of procedure.
- 12.9 Determine the effects of building system on fire or ventilation.
- 12.10 Demonstrate ventilating the following:
 - Flat roof
 - Pitched roof
 - Structure using mechanical positive-pressure ventilation
 - Structure using horizontal hydraulic ventilation

Course Standard 13

LPSCS-AF-13

Identify different types of fire hydrants, make fire hydrant connections, and set up a static water source.

- 13.1 Determine the fire hydrant marking and location system.
- 13.2 Summarize potential problems to look for during a fire hydrant inspection and the process of fire hydrant testing.
- 13.3 Compare dry-barrel and wet-barrel hydrants.
- 13.4 Evaluate alternative water supplies and rural water supply operations.
- 13.5 Demonstrate operating a hydrant.
- 13.6 Demonstrate creating a soft-sleeve and hard-suction hydrant connection.
- 13.7 Demonstrate connecting and placing a hard-suction hose for drafting from static.
- 13.8 Demonstrate deploying a portable water tank.

Course Standard 14

LPSCS-AF-14

Utilize, care for, and perform maintenance on fire hose, couplings, hose appliances, and tools and perform various hose loads and finishes following the policies and procedures set forth by the authority having jurisdiction (AHJ).

- 14.1 Assess fire hose sizes and general care and maintenance of fire hoses.
- 14.2 Determine potential types of fire hose damage and practices to prevent such damage.
- 14.3 Identify the characteristics of hose appliances and tools.
- 14.4 Distinguish between characteristics of threaded couplings and non-threaded couplings.
- 14.5 Inspect and care for hose and hose couplings.
- 14.6 Identify common hose rolls, hose loads, hose load finishes, and general guidelines for hose loading.

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- 14.7 Analyze pre-connected hose loads for attach lines; guidelines for laying hose; basic hose lays for supply hose; and procedures for handling pre-connected and other hoses.
- 14.8 Identify safety guidelines that should be followed when advancing a hose line into a burning structure.
- 14.9 Examine procedures for advancing hose and the techniques for operating hose line.
- 14.10 Demonstrate the following procedures:
 - Straightening a hose roll and a donut hose roll;
 - Coupling and uncoupling a hose;
 - Manipulating the accordion, the horseshoe, the pre-connected, the triple layer, the minuteman and the flat hose load;
 - Connecting to a hydrant using a forward lay;
 - Making the reverse hose lay; and
 - Advancing the pre-connected flat hose load, the minuteman hose load, and the advance triple layer hose load.
- 14.11 Demonstrate advancing hose using the shoulder load method and the working line drag method.
- 14.12 Demonstrate advancing a line into a structure and up and down an interior stairway.
- 14.13 Demonstrate advancing an uncharged line and a charged line up a ladder into a window.
- 14.14 Demonstrate extending a hose line, controlling a loose hose line, replacing a burst hose line, and operating a charged-attack line from a ladder.

Course Standard 15

LPSCS-AF-15

Demonstrate operating fire streams to reduce the heat from a fire and providing protection to firefighters and exposures using a solid, fog, and broken stream nozzle.

- 15.1 Identify and explain methods that are used with fire streams to reduce the heat from a fire and provide protection to firefighters and exposures.
- 15.2 Assess the extinguishing properties of water, friction loss, water hammer, and the characteristics of fire stream sizes.
- 15.3 Analyze the types of streams, nozzles, and control valves, including the handling of hand-line nozzles and the listing of the checks that should be included in nozzle inspections.
- 15.4 Demonstrate operating a solid stream nozzle, a fog-stream nozzle, and a broken-stream nozzle.

Course Standard 16

LPSCS-AF-16

Attack various types of fires, using effective attack tactics, and proper hose line selection that will lead to successful fire control while keeping property damage to a minimum. *(This procedure should be simulated. Students must be 18 to participate in live fire activities.)*

- 16.1 Summarize factors to consider prior to entering a burning building and when suppressing structure fires.
- 16.2 Demonstrate clarifying the gas-cooling technique.
- 16.3 Distinguish direct attack, indirect attack, and combination attack.
- 16.4 Evaluate the deployment of master stream devices and the aerial devices used to deliver master stream devices.

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- 16.5 Identify and describe actions and hazards associated with suppressing Class C fires.
- 16.6 Determine electrical hazard and the guidelines to be used in electrical emergencies.
- 16.7 Categorize the responsibilities of the various fire companies in a structural fire situation.
- 16.8 Distinguish actions taken in attacking fires in upper levels and below ground levels of structures.
- 16.9 Analyze structure fires in properties protected by fixed systems.
- 16.10 Assess actions that should be taken when attacking a vehicle fire, a trash container fire, and a fire in a confined space.
- 16.11 Determine parts of a wild land fire and summarize influences on wild land fire behavior including fuel, weather, and topography.
- 16.12 Identify and explain the methods used to attack wild land fires; the ten standard firefighting orders when fighting wild land fires; and the protective clothing and equipment needed.
- 16.13 Demonstrate performing the following:
 - Attacking a structure fire;
 - Deploying and operating a master stream device;
 - Turning off the building utilities;
 - Attacking a structure fire (above, below, and grade level) interior attack;
 - Attacking a passenger vehicle fire;
 - Extinguishing a fire in a trash container;
 - Attacking a fire in stacked/piled materials; and
 - Attacking a ground cover fire.

Course Standard 17

LPSCS-AF-17

Operate various fire detection, alarm, and suppression systems and function at fires in protected properties.

- 17.1 Determine the operation and functions of fire detection, alarm and suppressions systems.
- 17.2 Identify and explain the major applications of sprinkler systems and the protection and types of coverage provided, including identifying wet/dry sprinkler systems.
- 17.3 Analyze control valves and operating systems used in sprinkler systems.
- 17.4 Demonstrate operating a sprinkler system control valve.
- 17.5 Examine operations of fires in protected properties.
- 17.6 Demonstrate manually stopping the flow of water from a sprinkler.
- 17.7 Demonstrate connecting hose line to a sprinkler system (Fire Department Connections) FDC.

Course Standard 18

LPSCS-AF-18

Perform loss control operations, in a manner that will minimize damage to property using basic principles of salvage cover deployment and safe overhaul operations.

- 18.1 Analyze the philosophy of loss control.
- 18.2 Determine planning and procedures for salvage operations and basic principles of salvage cover deployment.

- 18.3 Evaluate salvage covers, salvage cover maintenance, and equipment used in salvage operations.
- 18.4 Summarize methods used to catch and route water from firefighting operation and cover openings using salvage covers.
- 18.5 Investigate and explain the overhaul process and operations including tools and equipment used, and fire safety during overhaul.
- 18.6 Determine how to locate hidden fires.
- 18.7 Demonstrate performing the following skills:
 - Cleaning, inspecting, and repairing a salvage cover;
 - Rolling a salvage cover for a one-firefighter spread;
 - Spreading a rolled salvage cover — One-firefighter method;
 - Folding a salvage cover for a one-firefighter spread;
 - Spreading a folded salvage cover — One-firefighter method;
 - Folding a salvage cover for a two-firefighter spread;
 - Spreading a folded salvage cover — Two-firefighter balloon throw;
 - Constructing a water chute with and without pike poles;
 - Constructing a catchall; and
 - Locating and extinguishing hidden fires.

Course Standard 19

LPSCS-AF-19

Identify indicators of an incendiary fire and protect and preserve evidence after a fire of suspicious nature.

- 19.1 Evaluate signs and indications of an incendiary fire.
- 19.2 Summarize important observations to be made en route, after arriving at the scene, and during fire-fighting operations.
- 19.3 Analyze firefighter conduct and statements at the scene.
- 19.4 Summarize firefighter responsibilities after the fire.
- 19.5 Determine ways to protect and preserve evidence.

Course Standard 20

LPSCS-AF-20

Perform communication responsibilities.

- 20.1 Identify and describe communication responsibilities of the firefighter and the skills necessary for fire department communication.
- 20.2 Appraise basic communications equipment used in telecommunications centers.
- 20.3 Demonstrate basic business telephone courtesies and how a firefighter should proceed when receiving emergency calls from the public.
- 20.4 Classify types of public alerting systems and the procedures that the public should use to report a fire or other emergency, and ways of alerting fire department personnel to emergencies.
- 20.5 Summarize guidelines for radio communications and the information given in arrival and progress reports.
- 20.6 Analyze the purpose of tactical channels.
- 20.7 Evaluate the call for additional resources and emergency radio traffic.
- 20.8 Assess evacuation signals and personnel accountability reports.
- 20.9 Demonstrate handling business calls and reports of emergencies (NFPA® 1001).
- 20.10 Demonstrate utilizing a portable radio for routine and emergency traffic.

Course Standard 21

LPSCS-AF-21

Provide basic pre-hospital emergency medical care when necessary.

- 21.1 Demonstrate appropriate techniques to ensure body substance isolation (BSI) and adhere to laws and regulation that relate to infection control.
- 21.2 Demonstrate the use of personal protective equipment.
- 21.3 Identify infectious diseases that might be easily transmitted.
- 21.4 Research the importance of immunizations.
- 21.5 Summarize the causes of stress, different reactions to stress, physiological signs and symptoms of stress, types of stress, and ways to deal with stress.
- 21.6 Determine scene safety considerations and actions to take at hazardous material incidents and rescue operations and scenes involving violent or dangerous situations.
- 21.7 Analyze the main components and functions of the circulatory and respiratory systems.
- 21.8 Demonstrate utilizing current standards to perform the following:
 - Recognize the links in the chain of survival and identify actions to be taken prior to resuscitation;
 - Evaluate rescue breathing and the steps of cardiopulmonary resuscitation (CPR);
 - Identify the CPR techniques utilized with an infant, child and adult patient;
 - Determine indications of effective CPR and when CPR can be interrupted;
 - Summarize actions taken when clearing an airway obstruction;
 - Differentiate between arterial, venous, and capillary bleeding;
 - Describe the steps for controlling external bleeding;
 - Identify the signs of internal bleeding; and
 - Describe the types and signs of shock and the steps for managing shock.