



# Wildland (2016)

## Course Plan

### Course Details

<b>Certification:</b>	Fire Fighter 1
<b>CTS Guide:</b>	Fire Fighter Certification Training Standards Guide (Month Year)
<b>Description:</b>	This course provides the skills and knowledge needed for the entry-level fire fighter to recognize hazards and unsafe situations; don, doff, and maintain wildland personal protective equipment; deploy a fire shelter; maintain suppression hand tools and equipment; assemble and prepare for response; construct and secure a fireline; reduce the threat of fire exposure to improved properties; and mop up and patrol a fire area when working with wildland fires.
<b>Designed For:</b>	Entry level fire fighters
<b>Prerequisites:</b>	Fire Fighter 1A – Structure (2019) (SFT course or equivalent) <ul style="list-style-type: none"><li>• If a student takes Fire Fighter 1C – Wildland (2016) as a stand-alone course</li></ul>
<b>Corequisites:</b>	Fire Fighter 1A – Structure (2019) (SFT course or equivalent) <ul style="list-style-type: none"><li>• If a student takes Fire Fighter 1C – Wildland within an academy program</li></ul>
<b>Standard:</b>	Complete all activities, skills, and formative tests. Complete all summative tests with a minimum score of 80%.
<b>Hours (Total):</b>	56 hours (30 lecture / 26 application / AHJ determines practice and assessment times)
<b>Maximum Class Size:</b>	50
<b>Instructor Level:</b>	Fire Fighter Instructor (See <i>SFT Procedures Manual</i> (January 2019) section 6.6 for requirements.)*
<b>Instructor/Student Ratio:</b>	1:50 (Lecture) / 1:10 (Application)*
<b>Restrictions:</b>	None
<b>SFT Designation:</b>	CFSTES

\* If any portion of this course curriculum is taught using another course plan, the instructor level and ratio of that course plan supersedes this requirement.

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## Required Resources

### Instructor Resources

To teach this course, instructors need:

- *Fundamentals of Fire Fighter Skills and Hazardous Materials Response* (Jones and Bartlett Learning, 4<sup>th</sup> edition, ISBN: 978-1-284-15133-6)
- **or**
- *Essentials of Fire Fighting* (IFSTA, 7<sup>th</sup> edition, ISBN: 978-087939657-2)
- *Firefighter's Handbook On Wildland Firefighting: Strategy, Tactics and Safety* (Fire Protection Publications, Oklahoma State University, 4<sup>th</sup> edition, ISBN: 978-087939676-3)
- [The New Generation Fire Shelter](#) (NWCG, March 2003 edition)
- [Incident Response Pocket Guide](#) (NWCG, current edition)
- NFPA 1051: Wildland Firefighting Personnel Professional Qualifications (current edition)
- Full wildland PPE that meets AHJ requirements

### Online Instructor Resources

The following instructor resources are available online at

<http://osfm.fire.ca.gov/training/firefighter1>

- Wildland Skill Sheets
  - 8-2: Don Wildland Personal Protective Equipment
  - 8-3: Deploy a Fire Shelter
  - 8-4: Doff Wildland Personal Protective Equipment
  - 9-1: Maintain Assigned Personal Protective Equipment
  - 9-2: Maintain Hand Tools and Equipment
  - 10-1: Assemble and Prepare for Response
  - 10-2a: Use Incident Response Pocket Guide
  - 10-2b: Assume Safety Position for Retardant Drop
  - 10-3a: Assemble, Use, and Maintain a Back Pump
  - 10-3b: Perform a Progressive Hose Lay (Hose)
  - 10-3b: Perform a Progressive Hose Lay (Nozzle)
  - 10-3c: Construct a Fireline Using Hand Tools
  - 10-3d: Perform Mobile Pumping
  - 10-4a: Ignite and Extinguish Road Flares and Fusees
  - 10-4b: Assemble, Ignite, Extinguish, and Disassemble a Drip Torch
  - 10-5: Prep and Defend a Structure
  - 10-6: Perform Mop Up Operations
  - 10-7: Patrol the Fire Area

### Student Resources

To participate in this course, students need:

- *Fundamentals of Fire Fighter Skills and Hazardous Materials Response* (Jones and Bartlett Learning, 4<sup>th</sup> edition, ISBN: 978-1-284-151336)
- **or**
- *Essentials of Fire Fighting* (IFSTA, 7<sup>th</sup> edition, ISBN: 978-087939657-2)
- *Firefighter's Handbook On Wildland Firefighting: Strategy, Tactics and Safety* (Fire Protection Publications, Oklahoma State University, 4<sup>th</sup> edition, ISBN: 978-087939676-3)
- *Incident Response Pocket Guide* (NWCG, current edition)
- Full wildland PPE that meets AHJ requirements

### Facilities, Equipment, and Personnel

The following facilities, equipment, or personnel are required to deliver this course:

- **Appliances and tools:** 1½-inch fog nozzles, 1-inch fog nozzles, 1½-inch bales, 1-inch bales, 1½-inch smooth bore tips, 1-inch smooth bore tips, forestry tees, double female fittings, double male fittings, hose clamps, hose roller, nozzle selection determined by AHJ, reducer or increaser (fittings), spanner wrenches, gated wye, rubber mallet
- **Hose:** 1-inch fire hose and 1 ½-inch fire hose (1,000-foot minimum), 2½-inch or 3-inch fire hose (500-foot minimum), handline with fog nozzle, hard suction (intake) hose and strainer, soft suction hose
- **Hand tools:** hydrant wrench, drip torches, back pumps, shovel (short handle, round point), Pulaski, McLeod, brush hook, single bit axe, double bit axe, wire broom, rhino tools, combi tool, flagging
- **Power tools:** Chain saw, pole saw, portable pump
- **Protective equipment/clothing:** Gloves, helmet, wildland shroud, goggles, hearing protection, wildland PPE, practice fire shelter, fire shelter, wildland web gear with water system(s)
- **Other supplies/equipment needed:** Fire hydrant, portable radio, minimum of two apparatuses equipped with pump and two separate water supplies, fuel and supplies for power equipment, cleaning supplies and equipment, two portable tanks with water transfer equipment and appliances, traffic and scene control devices

**Time Table**

Segment	Lecture	Application	Unit Total
<b>Unit 1: Introduction</b>			
Topic 1-1: Orientation and Administration	0.5	0.0	
Topic 1-2: Fire Fighter 1 Certification Process	0.5	0.0	
Topic 1-3: Wildland Fire Fighter Roles and Responsibilities	0.5	0.0	
<b>Unit 1 Totals</b>	<b>1.5</b>	<b>0.0</b>	<b>1.5</b>
<b>Unit 2: Preparation</b>			
Topic 2-1: Wildland Fire Behavior	7.5	0.5	
Topic 2-2: Recognizing Hazards and Unsafe Situations	4.0	2.0	
Topic 2-3: Human Factors on the Fireline	4.0	0.0	
Topic 2-4: Donning, Doffing, and Maintaining Wildland Personal Protective Equipment	0.5	1.5	
Topic 2-5: Deploying a Fire Shelter	0.5	1.5	
Topic 2-6: Maintaining Assigned Suppression Hand Tools and Equipment	1.5	1.75	
<b>Unit 2 Totals</b>	<b>18.0</b>	<b>7.25</b>	<b>25.25</b>
<b>Unit 3: Suppression</b>			
Topic 3-1: Assembling and Preparing for Response	0.5	0.25	
Topic 3-2: Constructing a Fireline	4.0	16.0	
Topic 3-3: Securing a Fireline	2.0	1.0	
Topic 3-4: Reducing the Threat of Fire Exposure to Improved Properties (WUI)	3.0	1.0	
Topic 3-5: Mopping Up in a Fire Area	0.5	0.5	
Topic 3-6: Patrolling the Fire Area	0.5	0.0	
<b>Unit 3 Totals</b>	<b>10.5</b>	<b>18.75</b>	<b>29.25</b>
<b>Summative Assessment</b>			
Determined by AHJ or educational institution	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>
<b>Skills Practice (Lab / Sets and Reps)</b>			
Determined by AHJ or educational institution	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>
<b>Course Totals</b>	<b>30.0</b>	<b>26.0</b>	<b>56.0</b>

**Time Table Key**

1. The Time Table documents the amount of time required to deliver the content included in the course plan.

2. Time is documented using the quarter system: 15 min. = .25 / 30 min. = .50 / 45 min. = .75 / 60 min. = 1.0.
3. The Course Totals do not reflect time for lunch (1 hour) or breaks (10 minutes per each 50 minutes of instruction or assessment). It is the instructor's responsibility to add this time based on the course delivery schedule.
4. Application (activities, skills exercises, and formative testing) time will vary depending on the number of students enrolled. The Application time documented is based on the maximum class size identified in the Course Details section.
5. Summative Assessments are determined and scheduled by the authority having jurisdiction. These are not the written or psychomotor State Fire Training certification exams. These are in-class assessments to evaluate student progress and calculate course grades.

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## Unit 1: Introduction

### Topic 1-1: Orientation and Administration

#### Terminal Learning Objective

At the end of this topic a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, skills exercises, resources, evaluation methods, and participation requirements in the course syllabus.

#### Enabling Learning Objectives

1. Identify facility requirements
  - Restroom locations
  - Food locations
  - Smoking locations
  - Emergency procedures
2. Identify classroom requirements
  - Start and end times
  - Breaks
  - Electronic device policies
  - Special needs and accommodations
  - Other requirements as applicable
3. Review course syllabus
  - Course objectives
  - Calendar of events
  - Course requirements
  - Student evaluation process
  - Assignments
  - Activities and skills exercises
  - Required student resources
  - Class participation requirements

#### Discussion Questions

1. Determined by instructor

#### Application

1. Determined by instructor

#### Instructor Notes

1. When teaching Fire Fighter 1A, 1B, and 1C in a consecutive format, it is not necessary to repeat this topic for each course. At a minimum, cover it once on the first day of the first course.



## Topic 1-2: Fire Fighter 1 and 2 Certification Process

### Terminal Learning Objective

At the end of this topic a student will be able to identify the requirements for Fire Fighter 1 and 2 certification and be able to describe the certification task book and examination process.

### Enabling Learning Objectives

1. Identify the different levels of certification in the Fire Fighter certification track
  - Fire Fighter 1
  - Fire Fighter 2
2. Identify the prerequisites for certification
  - Fire Fighter 1
  - Fire Fighter 2
3. Identify the course work required for certification
  - Fire Fighter 1
  - Fire Fighter 2
4. Identify the exams required for certification
  - Fire Fighter 1
  - Fire Fighter 2
5. Identify the task book requirements for certification
  - Fire Fighter 1
  - Fire Fighter 2
6. Identify the experience requirements for certification
  - Fire Fighter 1
  - Fire Fighter 2
7. Identify the position requirements for certification
  - Fire Fighter 1
  - Fire Fighter 2
8. Describe the certification task book process
9. Describe the certification examination process

### Discussion Questions

1. Determined by instructor

### Application

1. Determined by instructor

### Instructor Notes

1. When teaching Fire Fighter 1A, 1B, and 1C in a consecutive format, it is not necessary to repeat this topic for each course. At a minimum, cover it once on the first day of the first course.
2. Use the *SFT Procedures Manual (2019)* 7.12.1 Fire Fighter 1 (2019) and 7.12.3 Fire Fighter 2 (2019) content for ELOs 2 through 7.
3. Use a copy of the Fire Fighter 2 Certification Task Book to walk students through the task book process and expectations for ELO 8.

4. Use the *SFT Procedures Manual (2019)* (Chapter 11: Fire Fighter Certification Exams) content for ELO 9.

### Topic 1-3: Wildland Fire Fighter Roles and Responsibilities

#### Terminal Learning Objective

At the end of this topic a student will be able to describe the role of the wildland fire fighter as identified by NFPA 1051: Wildland Firefighting Personnel Professional Qualifications (current edition) and the Office of the State Fire Marshal.

#### Enabling Learning Objectives

1. Describe types of wildland fires
  - Wildland Urban Interface (intermix)
  - Forest
  - Desert
  - Grass
  - Brush
  - Timber
2. Describe the fire fighter's role within the local incident management system
3. Describe basic safety roles and responsibilities of the wildland fire fighter
  - Fireline safety, use, and limitations of personal protective equipment (PPE)
  - Use, limitations, inspection, and care of a fire shelter
  - First aid as referenced in NFES 1077 (*Incident Response Pocket Guide (IRPG)*)
4. Describe basic wildland fire behavior
5. Identify wildland fire suppression techniques and tactics

#### Discussion Questions

1. How do wildland fires differ from structure fires?

#### Application

1. Determined by instructor

#### Instructor Notes:

1. This topic is an introduction to everything covered in units 2 and 3. Cover this material at a very high level.

**CTS Guide Reference:** 8-1

**Skill Sheet:** None

## Unit 2: Preparation

### Topic 2-1: Wildland Fire Behavior

#### Terminal Learning Objective

At the end of this topic a student, given a wildland or wildland/urban interface fire and the standard safety policies and procedures of the AHJ, will be able to describe basic wildland fire behavior.

#### Enabling Learning Objectives

1. Describe basic wildland fire behavior
2. Identify the three sides of the fire triangle
3. Identify environmental factors that affect the start and spread of wildland fire
  - Weather
  - Fuel
  - Topography
4. Describe contributing factors that indicate potential for increased fire behavior that may compromise safety

#### Discussion Questions

1. What sources can you use to gather weather data?
2. How does weather influence fire behavior?
3. How does fuel influence fire behavior?
4. How does topography influence fire behavior?

#### Application

1. Given a scenario that includes weather, fuel, and topography, have students work in small groups to predict potential fire behavior and present their findings to the class.

#### Instructor Notes:

1. Recommend using NWCG S-190 course curriculum for additional content.

#### CTS Guide Reference: 10-2

#### Skill Sheet:

- 10-2a: Use Incident Response Pocket Guide
- 10-2b: Assume Safety Position for Retardant Drop

### Topic 2-2: Recognizing Hazards and Unsafe Situations

#### Terminal Learning Objective

At the end of this topic a student, given a wildland or wildland/urban interface fire and the standard safety policies and procedures of the AHJ, will be able to recognize hazards and unsafe situations, communicate hazard(s) and unsafe condition(s) to a supervisor, and take appropriate action.

#### Enabling Learning Objectives

1. Describe basic wildland fire safety
  - 10 Standard Fire Orders
  - 18 Watch-out Situations

- LCES
  - Common Denominators of Fire Behavior on Tragedy Fires
  - Downhill line construction
  - Avoiding fire entrapment
  - Using a vehicle or a structure as refuge
2. Describe hazards associated with working around aircraft
  3. Describe hazards associated with working around heavy equipment
  4. Assume safe position for an air tanker drop
  5. Use fireline flagging
  6. Use the *Incident Response Pocket Guide (IRPG)*

### Discussion Questions

1. How do LCES, the 10 Standard Fire Orders, and the 18 Watch-out Situations relate to one another?
  - How are they connected?
  - How are they different?
2. What are some of the Common Denominators of Fire Behavior on Tragedy?
  - How are these common denominators related to fire behavior?

### Application

1. Given several fatal fire incidents, have students work in small groups to identify violations of the 10 Standard Fire Orders and 18 Watch-out Situations and report their findings to the class.

### Instructor Notes:

1. Recommend using portions of NWCG S-131 course curriculum for additional content.

### CTS Guide Reference: 10-2

### Skill Sheet:

- 10-2a: Use Incident Response Pocket Guide
- 10-2b: Assume Safety Position for Retardant Drop

## Topic 2-3: Human Factors on the Fireline

### Terminal Learning Objective

At the end of this topic a student, given a wildland or wildland/urban interface fire and the standard safety policies and procedures of the AHJ, will be able to identify and communicate human performance factors to the appropriate personnel.

### Enabling Learning Objectives

1. Identify human performance factors in high-risk work environments
  - Attitude
  - Physical conditioning
  - Training levels
  - Experience
  - Fatigue
  - Local knowledge

- Crew dynamics
  - Chain of command
  - Span of control
  - Effective communication
2. Describe basic verbal communications
  3. Identify common barriers to good listening
    - Perceived opinions
    - Distractions
    - Filtering information
    - Not listening
    - Attitude
  4. Identify basic communication responsibilities
    - Briefings
    - Debriefing
    - Warnings
    - Acknowledge messages
    - Ask questions

**Discussion Questions**

1. How do human factors impact fireline safety?
2. How do human factors impact crew cohesion?

**Application**

1. Determined by instructor

**Instructor Notes:**

1. Recommend using portions of NWCG L-180 course curriculum for additional content.

**CTS Guide Reference:** 10-2

**Skill Sheet:**

- 10-2a: Use Incident Response Pocket Guide
- 10-2b: Assume Safety Position for Retardant Drop

**Topic 2-4: Donning, Doffing, and Maintaining Wildland Personal Protective Equipment**

**Terminal Learning Objective**

At the end of this topic a student, given wildland personal protective equipment including web gear with shelter, will be able to don, doff, and maintain PPE so that PPE is donned in 60 seconds or less, all elements of the PPE ensemble are worn and doffed in accordance with manufacturer guidelines and returned to a ready state, PPE ensemble is serviceable and available for use on the fireline, and defects are recognized and reported to the supervisor.

**Enabling Learning Objectives**

1. Identify the components of wildland PPE
2. Explain the importance of standards for wildland PPE

3. Describe the protection provided by and limitations of wildland PPE
4. Describe fireline safety and use of PPE
5. Identify manufacturer guidelines for correct PPE use
6. Identify when it is safe to doff wildland PPE
7. Identify AHJ policies and procedures for doffing wildland PPE
8. Describe how to inspect wildland PPE
9. Describe how to recognize when PPE should be removed from service
10. Describe proper cleaning procedures for wildland PPE
11. Describe how to maintain wildland PPE
12. Describe AHJ policy on fire shelter use
13. Don wildland PPE
14. Doff wildland PPE
15. Return PPE to a ready state

### Discussion Questions

1. How is wildland PPE different from structural PPE?
2. Why is it important to always wear PPE, including the fire shelter?

### Application

1. Given a recent wildland incident scenario, have students identify how improper PPE use contributed to injury or fatality.
2. Given wildland PPE have students practice donning and doffing PPE. Working in pairs, have students determine if each person's PPE is correctly worn per manufacturer standards.

### Instructor Note:

1. Green sheets and scenarios are available at [www.wildfirelessons.net](http://www.wildfirelessons.net).

### CTS Guide Reference: 8-2, 8-4, 9-1

### Skill Sheet:

- 8-2: Don Wildland Personal Protective Equipment
- 8-4: Doff Wildland Personal Protective Equipment
- 9-1: Maintain Assigned Wildland Personal Protective Equipment

## Topic 2-5: Deploying a Fire Shelter

### Terminal Learning Objective

At the end of this topic a student, given PPE, a hand tool, a live or simulated incident, and a fire shelter, will be able to deploy a fire shelter so that the fire shelter is deployed within 30 seconds and used in accordance with manufacturer and AHJ procedures.

### Enabling Learning Objectives

1. Describe the protection provided by and limitations of fire shelters
2. Describe how to inspect and evaluate a fire shelter
3. Describe how to select and prepare a shelter deployment site
4. Describe AHJ policy of fire shelter use
5. Identify items to take into and leave outside a fire shelter
  - Take in

- Water
- Radio
- Leave out
  - Combustibles (fuel, fusees, etc.)
  - Hand tool
- 6. Describe methods for deploying a fire shelter
  - Standing-to-sitting method
  - Standing drop-down method
  - Lying down method
- 7. Identify when to deploy and exit a fire shelter during an incident
- 8. Deploy a fire shelter within 30 seconds

### Discussion Questions

1. Why is it important to know and select the correct size fire shelter?
2. What factors should be considered when selecting a deployment site?
3. Why is it important to regularly inspect a fire shelter?
4. When should you exit a fire shelter?

### Application

1. Given a recent fire entrapment or shelter deployment, have students identify how the fire shelter worked to prevent more serious injuries or fatalities.
2. Given wildland PPE, a hand tool, and a practice fire shelter, have students practice deploying the fire shelter using different deployment methods.

### Instructor Notes

1. Recommend showing online NWCG video: New Generation Fire Shelter.

**CTS Guide Reference:** 8-3

**Skill Sheet:** 8-3: Deploy a Fire Shelter

## Topic 2-6: Maintaining Assigned Suppression Hand Tools and Equipment

### Terminal Learning Objective

At the end of this topic a student, given tools, equipment, and AHJ maintenance specifications, will be able to recognize defects and report them to a supervisor and maintain assigned suppression hand tools and equipment so that assigned equipment is serviceable.

### Enabling Learning Objectives

1. Identify wildland fire fighting tools and equipment
  - Fusees
  - Drip torches
  - Back pumps
  - Round point shovel
  - Pulaski
  - Mcleod
  - Brush hook
  - Single and double bit axe

- Wire broom
  - Rhino tool
  - Combi tool
  - Power equipment
    - Chain saw
    - Pump
    - Pole saw
  - Fireline flagging
2. Describe how to use wildland fire fighting tools and equipment
  3. Describe how to inspect tools and equipment
  4. Describe how to maintain and care for tools and equipment
  5. Describe how to recognize when tools and equipment should be removed from service
  6. Perform required maintenance techniques
  7. Sharpen assigned suppression equipment
  8. Perform other maintenance techniques for assigned suppression equipment
  9. Use required maintenance equipment

### Discussion Questions

1. Why is it important to properly maintain wildland tools and equipment?
2. What are some common tools used to cut line?
3. What are some common tools used to scrape fire line?

### Application

1. Given wildland tools/equipment that have been removed from service, have students inspect the tools/equipment to identify the deficiencies and safety concerns, and share their findings with the class.

**CTS Guide Reference:** 9-2

**Skill Sheet:** 9-2: Maintain Hand Tools and Equipment



## Unit 3: Suppression

### Topic 3-1: Assembling and Preparing for Response

#### Terminal Learning Objective

At the end of this topic a student, given an assembly location, an assignment, an incident location, a mode of transportation, and time requirements, will be able to assemble and prepare for response so that arrival at the incident with the required personnel and equipment meets AHJ guidelines.

#### Enabling Learning Objectives

1. Identify personnel and equipment requirements for response
  - Based on ICS type and capability
2. Identify AHJ time standards
3. Identify special transportation considerations
4. Describe operational procedures for various response modes
5. Describe AHJ safety response guidelines

#### Discussion Questions

1. What personnel and equipment are required for wildland incident response?
2. What steps should a fire fighter complete at the fire station before responding to a wildland incident?

#### Application

1. Have students create a list of items to carry in their personal out-of-county bag.

**CTS Guide Reference:** 10-1

**Skill Sheet:** 10-1: Assemble and Prepare for Response

### Topic 3-2: Constructing a Fireline

#### Terminal Learning Objective

At the end of this topic a student, given a wildland or wildland/urban interface fire, AHJ line construction standards, suppression tools, water or other suppression agents, and equipment, will be able to construct a fireline that conforms to the AHJ's construction standard.

#### Enabling Learning Objectives

1. Describe basic wildland suppression strategy
  - Direct
  - Indirect
  - Combination
2. Identify basic wildland suppression tactics
  - Hose lays
  - Mobile attack
  - Hand line
  - Dozer line
  - Retardant line

3. Describe the principles, techniques, and standards of fireline construction
  - Hose lays
  - Mobile attack
  - Hand line
  - Dozer line
4. Describe how to construct a handline
  - Build a control line using the bump up or one lick method
  - Build a cup or trench while constructing handline
  - Procedures for passing hand tools
  - Tool line up and spacing
5. Describe how to perform mobile attack
6. Describe how to perform a simple hose lay
  - No appliances
7. Describe how to perform a progressive hose lay
  - With appliances
  - Two-person method
8. Describe how to retrieve hose
  - Single-section drain and carry
  - Figure 8 drain and carry
  - Other AHJ-specific methods
9. Use wildland tools correctly
  - Fusees
  - Drip torches
  - Back pumps
  - Round point shovel
  - Pulaski
  - Mcleod
  - Brush hook
  - Single and double bit axe
  - Wire broom
  - Rhino tool
  - Combi tool
  - Power equipment
    - Chain saw
    - Pump
    - Pole saw
10. Construct a handline
11. Perform mobile attack
12. Perform a simple hose lay
13. Perform progressive hose lay
14. Retrieve hose
15. Apply fire streams

16. Apply extinguishing agents

**Discussion Questions**

1. How does a simple hose lay differ from a progressive hose lay?
2. How wide should a fireline be?
3. What safety concerns should be considered:
  - When building a fireline?
  - For downhill line construction?
  - When working near heavy equipment?
  - When working with aircraft?

**Application**

1. Given an assignment, PPE, an apparatus or pressurized water supply with ability to do mobile pumping, hand tools, wildland hose and packs, nozzles, and appliances, have students practice constructing a handline, performing mobile attack, performing a simple and progressive hose lays, and retrieving hose.

**CTS Guide Reference:** 10-2, 10-3

**Skill Sheet:**

- 10-2a: Use Incident Response Pocket Guide
- 10-2b: Assume Safety Position for Retardant Drop
- 10-3a: Assemble, Use, and Maintain a Back Pump
- 10-3b: Perform a Progressive Hose Lay (Hose)
- 10-3b: Perform a Progressive Hose Lay (Nozzle)
- 10-3c: Construct a Fireline Using Hand Tools
- 10-3d: Perform Mobile Pumping

**Topic 3-3: Securing a Fireline**

**Terminal Learning Objective**

At the end of this topic a student, given a wildland fire or simulated event, suppression tools, water or other suppression agents, and equipment, will be able to secure the fireline so that fireline burning materials and unburned fuels are physically separated.

**Enabling Learning Objectives**

1. Describe fireline improvement techniques
  - Wet lines
  - Handline
  - Dozer lines
  - Retardant lines
  - Natural fuel breaks
  - Manmade fuel breaks
2. Describe safety considerations
3. Describe how to use basic ignition devices
  - Only under direct supervision
  - Ignite and extinguish fuses

- Assemble and use a drip torch
4. Use basic ignition devices

### Discussion Questions

1. How does a finished fireline differ from an initial fireline?
2. What is anchor point? What is it used for?
3. What ignition devices can be used to burn out a fireline?
4. What factors must be considered before initiating burn out?

### Application

1. Given PPE and ignition devices, have students practice using ignition devices.

**CTS Guide Reference:** 10-4

### Skill Sheet:

- 10-4a: Ignite and Extinguish Road Flares and Fusees
- 10-4b: Assemble, Ignite, Extinguish, and Disassemble a Drip Torch

## Topic 3-4: Reducing the Threat of Fire Exposure to Improved Properties (WUI)

### Terminal Learning Objective

At the end of this topic a student, given a wildland or wildland/urban interface fire, suppression tools, and equipment, will be able to describe methods to reduce the threat of fire exposure to improved properties in order to protect them.

### Enabling Learning Objectives

1. Describe wildland fire behavior within the wildland/urban interface
2. Describe how to reduce fuel for structure defense
3. Identify structure defense tactical actions
  - Check and go
  - Prep and go
  - Prep and defend
  - Fire front following
  - Bump and run
  - Anchor and hold
  - Tactical patrol
4. Identify structure triage categories
  - Non-threatened
  - Threatened defensible
  - Threatened non-defensible
5. Identify the difference between a safety zone and a temporary refuge area (TRA)
6. Identify equipment and personnel capabilities within the wildland/urban interface
7. Prepare a structure for structure defense
8. Conduct structure defense within the wildland/urban interface

### Discussion Questions

1. How does a fire fighter determine which tactical action to pursue?
2. When is it acceptable to leave a structure threatened by a wildland fire?
3. How is a temporary refuge area (TRA) different from a safety zone?

### Application

1. Given a wildland/urban interface incident or simulated scenario and fire behavior factors, have students assess the structures, determine a triage category for each structure, and identify appropriate tactics to protect them.
2. Given a simulated scenario and an ICS 231 wildland placard, have students to fill out an ICS 231 wildland placard.

### Instructor Notes:

1. Recommend using the FIRESCOPE Wildland Urban Interface (WUI) Structure Defense document for additional content.
2. Recommend using the CAL FIRE Wildland Urban Interface Operations Handbook for additional content.

**CTS Guide Reference:** 10-5

**Skill Sheet:** 10-5: Prep and Defend a Structure

## Topic 3-5: Mopping Up in a Fire Area

### Terminal Learning Objective

At the end of this topic a student, given a wildland fire or simulated scenario, suppression tools, water or other suppression agents, and equipment, will be able to mop up a fire area so that burning fuels that threaten escape are located and extinguished.

### Enabling Learning Objectives

1. Describe principles, techniques, and standards for mop up
  - Dry mop up
  - Wet mop up
2. Use basic tools to perform mop-up operations
3. Use basic techniques to perform mop-up operations
4. Identify hazards associated with mop-up operations
  - Human hazards
  - Environmental hazards
5. Assemble and operate a back pump

### Discussion Questions

1. What are some critical elements of mop-up operations?
2. How will different fuels influence mop-up operations?
3. What are some human factors hazards associated with mop-up operations?

### Application

1. Given a wildland fire or simulated scenario, suppression tools, water or other suppression agents, and equipment, have students practice mopping up a fire area.

### Instructor Notes:

1. None

**CTS Guide Reference:** 10-6

**Skill Sheet:** 10-5: Perform Mop Up Operations

### Topic 3-6: Patrolling the Fire Area

#### Terminal Learning Objective

At the end of this topic a student, given a wildland fire or simulated scenario, suppression tools, and equipment, will be able to patrol and maintain control of the fire area.

#### Enabling Learning Objectives

1. Describe the principles, techniques, and standards of patrol

#### Discussion Questions

1. What should a fire fighter look for during patrol operations?
2. What is the importance of conducting patrol operations?

#### Application

1. Determined by instructor

#### Instructor Notes:

1. None

**CTS Guide Reference:** 10-7

**Skill Sheet:** 10-7: Patrol the Fire Area

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## How to Read a Course Plan

A course plan identifies the details, logistics, resources, and training and education content for an individual course. Whenever possible, course content is directly tied to a national or state standard. SFT uses the course plan as the training and education standard for an individual course. Individuals at fire agencies, academies, and community colleges use course plans to obtain their institution's consent to offer course and provide credit for their completion. Instructors use course plans to develop syllabi and lesson plans for course delivery.

### Course Details

The Course Details segment identifies the logistical information required for planning, scheduling, and delivering a course.

### Required Resources

The Required Resources segment identifies the resources, equipment, facilities, and personnel required to delivery the course.

### Unit

Each Unit represents a collection of aligned topics. Unit 1 is the same for all SFT courses. An instructor is not required to repeat Unit 1 when teaching multiple courses within a single instructional period or academy.

### Topics

Each Topic documents a single Terminal Learning Objective and the instructional activities that support it.

### Terminal Learning Objective

A Terminal Learning Objective (TLO) states the instructor's expectations of student performance at the end of a specific lesson or unit. Each TLO includes a task (what the student must be able to do), a condition (the setting and supplies needed), and a standard (how well or to whose specifications the task must be performed). TLOs target the performance required when students are evaluated, not what they will do as part of the course.

### Enabling Learning Objectives

The Enabling Learning Objectives (ELO) specify a detailed sequence of student activities that make up the instructional content of a lesson plan. ELOs cover the cognitive, affective, and psychomotor skills students must master in order to complete the TLO.

### Discussion Questions

The Discussion Questions are designed to guide students into a topic or to enhance their understanding of a topic. Instructors may add to or adjust the questions to suit their students.

### **Application**

The Application segment documents experiences that enable students to apply lecture content through cognitive and psychomotor activities, skills exercises, and formative testing. Application experiences included in the course plan are required. Instructors may add additional application experiences to suit their student population if time permits.

### **Instructor Notes**

The Instructor Notes segment documents suggestions and resources to enhance an instructor's ability to teach a specific topic.

### **CTS Guide Reference**

The CTS Guide Reference segment documents the standard(s) from the corresponding Certification Training Standard Guide upon which each topic within the course is based. This segment is eliminated if the course is not based on a standard.

### **Skill Sheet**

The Skill Sheet segment documents the skill sheet that tests the content contained within the topic. This segment is eliminated if the course does not have skill sheets.

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