

**Course Objectives/Course Outline
Spokane Community College**

Course Title: Wildland Fire Operations

Prefix and Course Number: FS 177

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Describe the fire behavior factors affecting the start and spread of wildland fire.
- Describe the weather elements that affect wildland fire.
- Describe the steps the firefighter should take to prepare for the extended attack phase of the fire.
- Describe those factors that will ensure firefighter safety.
- Identify the appropriate hand tools and firing devices that are used on wildland fires.
- Describe how to secure a control line around a fire.
- Describe how to patrol and scout a fire.
- Describe the specific elements of size-up.
- Demonstrate size-up.
- Describe the priorities in initial strategy.
- Demonstrate how to create an action plan.

Course Outline:

- I. Fire Behavior Factors of Wildland Fires
 - A. Fire Triangle
 - B. Methods of Heat Transfer
 - C. Environmental Elements
 - D. Fuels
 - E. Weather
 - F. Wind
 - G. Slope
 - H. Topography
 - I. Dangerous Conditions
- II. Fire Weather
 - A. Indicators of Cold Fronts
 - B. Foehn Wind Conditions
 - C. Thunderstorms
 - D. Daily Cycle of Slope and Valley Winds
 - E. Relative Humidity
 - F. Fire Environment Indicators
- III. Firefighter Preparedness
 - A. Personal Gear
 - B. Personal Protective Equipment
 - C. Firefighter Accountability
- IV. Safety
 - A. Definition
 - B. Potential Hazards
 - C. LCES
- V. Standards for Survival

- A. Common Denominators on Fatal Fires
- B. Watchout Situations
- C. Fire Orders
- D. Function of the Fire Shelter
- E. Deployment of the Fire Shelter
- F. Care and Inspection of Fire Shelter
- VI. Use of Tools and Equipment
 - A. Maintenance of Hand Tools
 - B. Carrying and Passing Tools
 - C. Proper Spacing
 - D. Place of Fireline
- VII. Firing Devices
 - A. Hazards of Fuses
 - B. Hazards of Drip Torches
 - C. Use of Drip Torches
 - D. Care of Drip Torches
 - E. Methods of Igniting Wildland Fires
- VIII. Securing the Control Line
 - A. Extinguish Burning Material by Chopping, Scraping, and Mixing with Soil
 - B. Precautions When Applying Water
 - C. Systematic Mop-up
 - D. Senses and Burning Materials
 - E. Breaking Up and Dispersing Machine Piles
 - F. Cold Trailing
 - G. Factors that Affect Water or Retardant Line
- IX. Scouting and Patrolling
 - A. Responsibilities of a Lookout
 - B. Considerations when Patrolling a Fire
 - C. Locating Spot Fires
 - D. Communication among Designated Personnel
- XI. Size-Up
 - A. Size-Up Information
 - B. Resources
 - C. Size-up Reports
- XII. Initial Strategy and Action Plan
 - A. Priorities of Strategic Goals
 - B. Operational Modes
 - C. Factors of Resource Ordering
 - D. Briefing and Deploying Resources
- XIII. Structure Triage
 - A. Structural Triage Categories
 - B. Triage Decisions
 - C. Hopeless Situations
- XIV. Tactics
 - A. Arrival Operations
 - B. Structure Preparation
 - C. Defending Structures
- XV. Action Plan Assessment
 - A. Assessing the Effectiveness of the Action Plan

- XVI. Public Relations and Follow-Up
 - A. Steps before Leaving
 - B. Dealing with the Public
 - C. Demobilization Plan
 - D. After the Fire
 - E. Minimizing Damage
 - F. Responsibility to Post Incident Management