

# Basic Wildland Firefighting

## Course Design

2006-2007

### **Course Information**

<b>Organization</b>	Eastern Arizona College
<b>Division</b>	Allied Health
<b>Course Number</b>	FSC 150
<b>Title</b>	Basic Wildland Firefighting
<b>Credits</b>	3
<b>Developed by</b>	Robert Shirkey & B. Stephen Cullen, Ph.D.
<b>Lecture/Lab Ratio</b>	3 Lecture/0 Lab
<b>Transfer Status</b>	Non-transferable
<b>Activity Course</b>	No
<b>CIP Code</b>	43.0203
<b>Assessment Mode</b>	Pre/Post Test (10 Questions/10 Points)
<b>Semester Taught</b>	Upon Request
<b>GE Category</b>	None
<b>Separate Lab</b>	No
<b>Awareness Course</b>	No
<b>Intensive Writing Course</b>	No

### **Prerequisites**

None

### **Educational Value**

This course is designed for fire department personnel and those aspiring to pursue careers in wildland firefighting.

### **Description**

The course is presented through a series of lectures, field and sand table exercises. Includes the factors that affect wildland fire behavior, the start and spread of fires, how topography, slope and weather elements affect fire behavior and how to recognize dangerous situations on the fireline.

### **Supplies**

8" top leather boots

3-ring binder

## **Competencies and Performance Standards**

### **1. (S190) Describe fire behavior factors affecting the start and spread of wildland fire.**

#### **Performance Standards**

*Student will demonstrate competence by*

- o describing the fire triangle.
- o identifying three methods of heat transfer.
- o listing the three principal environmental elements affecting wildland fire behavior.
- o listing three factors of fuel that affect the start and spread of wildland fire.
- o listing three factors of weather that affect fuel moisture.
- o describing how wind affects wildland fire spread.
- o describing how slope affects wildland fire spread.
- o listing four factors of topography that affect wildland fire behavior.
- o describing the dangerous conditions that can develop in a box canyon and steep narrow canyons.
- o listing indicators of an approaching cold front and describe what wind changes to expect.
- o listing three common forms of wind conditions and the areas in which they occur.

*Student performance will be successful when he/she*

- o in writing, describes the fire triangle.
- o in writing, identifies three methods of heat transfer.
- o recites the three principal environmental elements affecting wildland fire behavior.
- o in writing, lists three factors of fuel that affect the start and spread of wildland fire.
- o in writing, lists three factors of weather that affect fuel moisture.
- o recites and orally explains how wind affects fire spread.
- o in writing, describes how slope affects wildland fire spread.
- o in writing, lists four factors of topography that affect wildland fire behavior.
- o in writing, describes the dangerous conditions that can develop in a box canyon and steep narrow canyons.
- o in writing, lists indicators of an approaching cold front and describes what wind changes to expect.
- o in writing, lists three common forms of wind conditions and the areas in which they occur.

### **2. (S130, L180, I100) Describe and demonstrate the knowledge and skills necessary to attain certification as a wildland firefighter.**

#### **Performance Standards**

*Student will demonstrate competence by*

- o listing personal equipment needed for a wildland firefighter.
- o describing the Incident Command System.
- o describing resource typing.

- o listing Watch Out Situations and Fire Orders and understand their relationship.
- o understanding the concept of LCES, Lookouts, Communications, Escape Routes & Safety Zones.
- o gaining knowledge about fire shelters, their use and maintenance.
- o identifying potentially hazardous situations on the fireline.
- o gaining knowledge in the use of hand tools.
- o acquiring knowledge in the use of firing devices.
- o acquiring knowledge in the use of water and water handling devices.
- o acquiring knowledge in various methods of wildland fire suppression and line construction methods.
- o acquiring knowledge on use of incident radio communications.
- o acquiring knowledge and methods of mop-up and securing the fireline.
- o gaining knowledge pertaining to hazardous materials identification and mitigation.
- o acquiring knowledge pertaining to fire in the urban-interface environment
- o gaining knowledge about pumps operations and hose lays.
- o gaining knowledge relative to map reading & compass use.
- o acquainting self with knowledge about wildland fire investigation.

*Student performance will be successful when he/she*

- o performs demonstrations with proficiency competencies during field day exercises.
- o demonstrates pump assembly, operation, maintenance and hose lay procedures.
- o demonstrates to group, basic map and compass work.
- o lists in writing, personal equipment needed for firefighter readiness.
- o describes, in writing, the Incident Command System.
- o describes incident and resource typing.
- o lists and describes in writing, the relationship between the 10 Orders and the Watch Out Situations.
- o describes in writing, the concept of LCES.
- o demonstrates proficiency with regard to fire shelter use and maintenance.
- o demonstrates knowledge of potentially hazardous situations encountered on the fireline.
- o demonstrates proficiency with various wildland fire tools.
- o demonstrates with proficiency the use and maintenance of various firing devices.
- o demonstrates proper use of water and water handling equipment for fire suppression activities.
- o demonstrates various methods of organized line construction.
- o demonstrates proper radio procedures, care and programming.
- o demonstrates mop-up procedures and methods.
- o describes in writing, procedures for hazardous materials situations.
- o outlines in writing, the wildland urban inter-face and how it affects firefighting efforts.
- o displays in writing, an awareness of proper wildland fire investigation.

- o outlines in writing, procedures when cultural resources are present in the fire area.

## ***Types of Instruction***

Lecture and field exercises

## ***Grading Information***

### ***Grading Scale***

A 100-90%

B 89-80%

C 79-70%

D 69-60%

F Below 60%

Pass/Fail S-190 Certification 70% above for certification

Pass/Fail S-130 Certification 70% above for certification

Pass/Fail L-180 Certification 70% above for certification

Pass/Fail I-100 Certification 70% above for certification

Note: It is possible to pass FSC150 but not earn NWCG certification in one or more of the four unit modules if 70% is not achieved in the of the four NWCG Certification examinations..