

EASTERN ARIZONA COLLEGE

Basic Wildland Firefighting

Course Design
2016-2017

Course Information

Division Allied Health
Course Number FSC 150
Title Basic Wildland Firefighting
Credits 3
Developed by B. Stephen Cullen, Ph.D./Revised by Charles A. Jacobs
Lecture/Lab Ratio 3 Lecture/0 Lab

Transfer Status

ASU	NAU	UA
ERM DEC	Elective Credit	Non Transferable

Activity Course No
CIP Code 43.0203
Assessment Mode Pre/Post Test (10 Questions/10 Points)
Semester Taught Upon Request
GE Category None
Separate Lab No
Awareness Course No
Intensive Writing Course No

Prerequisites

None

Educational Value

This course is designed for adult learners who are interested in receiving training in wildland firefighting, and to meet the requirements of the National Wildfire Coordinating Group (NWCG) for new wildland firefighters.

Description

The course is presented through a series of lectures and field exercises. It includes factors affecting wildland fire behavior; the start and spread of fires; how fuels, topography, and weather conditions affect fire spread; and how to recognize dangerous situations on the fireline.

Supplies

None

Competencies and Performance Standards

1. Describe fire behavior factors affecting the start and spread of wildland fire (S-190).

Learning Objectives

What you will learn as you master the competency:

- a. Describe the fire triangle.
- b. Identify three methods of heat transfer.
- c. List the three principal environmental elements affecting wildland fire behavior.
- d. List three factors of fuel that affect the start and spread of wildland fire.
- e. List three factors of weather that affect fuel moisture.
- f. Describe how wind affects wildland fire spread.
- g. Describe how slope affects wildland fire spread.
- h. List four factors of topography that affect wildland fire behavior.
- i. Describe the dangerous conditions that can develop in a box canyon and steep narrow, canyons.
- j. List indicators of an approaching cold front and describe what wind changes to expect.
- k. List three common forms of wind conditions and the areas in which they occur.

Performance Standards

Competence will be demonstrated:

- o in completion of the class assignments
- o in demonstration of the required skills
- o in completion of the tests

Performance will be satisfactory when:

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

2. Describe and demonstrate the knowledge and skills necessary to attain certification as a wildland firefighter (S-130, L-180, I-100).

Learning Objectives

What you will learn as you master the competency:

- a. List personal equipment needed for a wildland firefighter.
- b. Describe the Incident Command System (ICS).

- c. Describe resource typing.
- d. List Watch Out Situations and Fire Orders and understand their relationship.
- e. Understand the concept of Lookouts, Communications, and Escape Routes & Safety Zones (LCES).
- f. Gain knowledge about fire shelters, their use and maintenance.
- g. Identify potentially hazardous situations on the fireline.
- h. Gain knowledge in the use of hand tools.
- i. Acquire knowledge in the use of firing devices.
- j. Acquire knowledge in the use of water and water handling devices.
- k. Acquire knowledge in various methods of wildland fire suppression and line construction methods.
- l. Acquire knowledge on use of incident radio communications.
- m. Acquire knowledge and methods of mop-up and securing the fireline.
- n. Gain knowledge pertaining to hazardous materials identification and mitigation.
- o. Acquire knowledge pertaining to fire in the urban-interface environment.
- p. Gain knowledge about pumps, pump operations, and hose lays.
- q. Gain knowledge relative to map reading and compass use.
- r. Acquaint self with knowledge about wildland fire investigation.

Performance Standards

Competence will be demonstrated:

- o in completion of the class assignments
- o in demonstration of the required skills
- o in completion of the tests

Performance will be satisfactory when:

- o learner demonstrates proficiency and competency during field day exercises
- o learner demonstrates pump assembly, operation, maintenance, and hose lay procedures
- o learner demonstrates to group, basic map reading skills and compass use
- o learner lists, in writing, personal equipment needed for firefighter readiness
- o learner describes, in writing, the Incident Command System (ICS)
- o learner describes incident and resource typing
- o learner lists and describes, in writing, the relationship between the Ten Standard Firefighting Orders and the 18 Watch Out Situations
- o learner describes, in writing, the concept of LCES
- o learner demonstrates proficiency with regard to fire shelter use and maintenance
- o learner demonstrates knowledge of potentially hazardous situations encountered on the fireline
- o learner demonstrates proficiency in the use of various wildland fire tools
- o learner demonstrates proficiency in the use and maintenance of various firing devices
- o learner demonstrates proper use of water and water handling equipment for fire suppression activities
- o learner demonstrates various methods of organized line construction
- o learner demonstrates proper radio procedures, care, and radio programming
- o learner demonstrates proper mop-up procedures and methods

- learner describes, in writing, procedures for hazardous materials situations
- learner outlines, in writing, the definition of wildland urban interface and how it affects firefighting efforts
- learner displays, in writing, an awareness of proper wildland fire investigation
- learner outlines, in writing, procedures when cultural resources are found to be present in the fire area

Types of Instruction

Classroom Presentation

Field Exercises

Grading Information

Grading Rationale

Grades will be based on attendance (10%), participation (10%), and written exams (60%). The final exam (post-test) will count as 20% of the final grade.

Grading Scale

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	59% and below

In addition, for National Wildfire Coordinating Group (NWCG) Certification:

Pass/Fail	S-190 Certification	70% or above
Pass/Fail	S-130 Certification	70% or above
Pass/Fail	L-180 Certification	70% or above
Pass/Fail	I-100 Certification	70% or above

Note: It is possible to pass FSC 150, but not earn NWCG Certification in one or more of the four-unit modules if 70% is not achieved on any one of the four NWCG Certification examinations.