

CATALOG INFORMATION

Dept and Nbr: NRM 72                      Title: FIRE CNTROL/ITS USE  
Full Title: Forest Fire Control and Its Use  
Last Reviewed: 1/25/2021

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	6	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 157.50

Title 5 Category: AA Degree Applicable  
Grading:                      Grade or P/NP  
Repeatability:              00 - Two Repeats if Grade was D, F, NC, or NP  
Also Listed As:  
Formerly:                      FOR 72

**Catalog Description:**  
Principles of fire behavior, control and prevention for natural resource managers and first responders. Also covers the prescribed use of fire in natural resource management applications (fuel reduction, invasive species control, etc.).

**Prerequisites/Corequisites:**

**Recommended Preparation:**  
Eligibility for ENGL 100 OR EMLS 100 (formerly ESL 100) or appropriate placement based on AB705 mandates

**Limits on Enrollment:**

**Schedule of Classes Information:**  
Description: Principles of fire behavior, control and prevention for natural resource managers and first responders. Also covers the prescribed use of fire in natural resource management applications (fuel reduction, invasive species control, etc.). (Grade or P/NP)  
Prerequisites/Corequisites:  
Recommended: Eligibility for ENGL 100 OR EMLS 100 (formerly ESL 100) or appropriate

placement based on AB705 mandates

Limits on Enrollment:

Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:

<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
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<b>CSU Transfer:</b>	Transferable	Effective:	Fall 1981	Inactive:
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<b>UC Transfer:</b>	Effective:	Inactive:
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**CID:**

**Certificate/Major Applicable:**

Both Certificate and Major Applicable

## **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Distinguish among wildland fire behaviors as they relate to environmental factors.
2. Discuss ways to use fire in land and vegetation management practices to improve stewardship of forest and range lands.
3. Demonstrate understanding the use and safe operation of firefighting equipment.

### **Objectives:**

At the conclusion of this course, the student should be able to:

1. Compare alternative fire fighting actions and their influences on fire behavior.
2. Implement fire standards for firefighter safety.
3. Evaluate the Incident Command System (I.C.S.) organizational structure and chain of command in emergency situations and explain their role in the overall context of wildland fire suppression.
4. Differentiate among types of firefighting equipment and determine when each should be used.
5. Compare and contrast the different methods of attacking a forest fire.
6. Apply the ten standard firefighting rules.
7. Describe the safe and effective use of hand tools, chain saws, and other firefighting equipment and outline standard procedures for operating around equipment such as bulldozers, helicopters, and fixed wing aircraft.
8. Describe the safe use of chain saws and related equipment as it concerns felling, limbing, and bucking operations.
9. Identify the basic components of chain saws and perform routine maintenance and identify and troubleshoot malfunctions.

### **Topics and Scope:**

I. Introduction

- A. History of wildland fire technology/suppression
- B. Fire terminology
- C. Wildland firefighting agencies
- II. Environmental Factors Influencing Fire Behavior
  - A. Fuels
  - B. Weather factors
  - C. Topography
- III. Fire Suppression and Firefighter Safety
  - A. Fire line safety and fire shelters
  - B. Fire standards
  - C. Fire line construction and safety
  - D. Mop-up techniques and safety
- IV. Operation, maintenance, and safety of fire fighting equipment
  - A. Chain saws, power saws, and crosscut saws
  - B. Helicopter and fixed wing aircraft procedures and safety
  - C. Field skills
    - 1. Techniques (felling, limbing, bucking)
    - 2. Line construction
- V. Regulations
  - A. Incident Command System (I.C.S.)
  - B. Chain of command
- VI. Fire Use
  - A. Silviculture practices
  - B. Improving forest and range lands
  - C. Native American use of fire for land management

### Assignment:

1. Weekly readings assignments (10-15 pages)
2. Weekly homework assignments
3. Quiz(zes) (1-4)
4. One to two written reports to different fire scenarios (2-3 pages)
5. One term paper (5-8 pages)
6. One oral presentation based on the term paper (15 minutes)
7. One midterm; one final exam

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Term paper, fire scenario written reports
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Writing 20 - 30%
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**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems
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Problem solving 10 - 20%
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**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Oral presentation

Skill Demonstrations  
10 - 20%

**Exams:** All forms of formal testing, other than skill performance exams.

Quiz(zes), midterm, final exam

Exams  
40 - 60%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

None

Other Category  
0 - 0%

### **Representative Textbooks and Materials:**

Firefighter's Handbook on Wildland Firefighting: Strategy, Tactics and Safety. 4th ed. Fire Protection Publications. 2018

Wildland Firefighting: Fire Behavior, Tactics & Command. Perry, Donald G. Fire Publications, Inc. 1990 (classic)

Prescribed Burning in California Wildlands Vegetation Management. Biswell, Harold H. University of California Press. 1999 (classic)

Instructor prepared materials