NRM 72 Course Outline as of Fall 2009

CATALOG INFORMATION

Dept and Nbr: NRM 72   Title: FIRE CNTROL/ITS USE
Full Title: Forest Fire Control & 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	17.5	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. Also covers the productive use of fire in forestry applications. Necessary for US Forest Service, USDA "Red Card" certification.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:
Description: Principles of fire behavior, control and prevention. Also covers the productive use of fire in forestry applications. Necessary for US Forest Service, USDA "Red Card" certification. (Grade or P/NP)
Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100 or ESL 100
Limits on Enrollment:
Transfer Credit: CSU;

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

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**		Effective:	Inactive:
CSU GE:	**Transfer Area**		Effective:	Inactive:
IGETC:	**Transfer Area**		Effective:	Inactive:
CSU Transfer:	Transferable	Effective:	Fall 1981	Inactive:
UC Transfer:		Effective:		Inactive:

CID:

Certificate/Major Applicable:
Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:
Upon successful completion of this course, students will be able to:
1. Summarize the factors that influence fire behavior.
2. Compare alternative fire fighting actions and their influences on fire behavior.
3. Implement fire standards for firefighter safety.
4. Distinguish among wildland fire behaviors as they relate to environmental factors.
5. Evaluate the I.C.S (Incident Command System) organizational structure and chain of command in emergency situations and explain their role in the overall context of wildland fire suppression.
6. Differentiate among types of firefighting equipment and determine when each should be used.
7. Compare and contrast the different methods of attacking a forest fire.
8. Apply the ten standard fire-fighting rules.
9. Propose ways to use fire in silviculture practices to improve forest and range lands.
10. Describe the use of hand tools, chain saws, and other firefighting equipment and outline standard procedures for operating around bulldozers, helicopters, and fixed wing aircraft.
11. Describe the safe use of chain saws and related equipment as it concerns felling, limbing, and bucking operations.
12. Identify the basic components of power saws and troubleshoot to determine malfunctions.

Topics and Scope:

I. Introduction
 A. History of wildland fire technology/suppression
 B. Fire terminology
 C. Wildland firefighting agencies
II. Fire Physics
 A. Fire behavior
 B. Fuels
 C. Weather
   1. basic principles
   2. temperature

3. atmospheric moisture
4. atmospheric stability
5. wind
6. thunderstorms
 D. 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. Fire Tools
 A. Tools and apparatus
   1. tool safety
   2. maintenance
 B. Chain saws and crosscut saws
   1. safety
   2. operation
   3. techniques
     a. felling
     b. limbing
     c. bucking
   4. maintenance and troubleshooting
V. Air Operations
 A. Helicopter procedures and safety
 B. Fixed wing aircraft procedures and safety
VI. Regulations
 A. I.C.S. (Incident Command System)
 B. Chain of command
 C. Sexual harassment
VII. Field Skills
 A. Field conduct
 B. Woodsmanship
 C. Field performance
 D. Line construction
 E. Power saws
VIII. Fire Use
 A. Silviculture practices
 B. Improving forest and range lands
 C. Native American use of fire for land management

Assignment:

Representative assignments:
1. Readings in assigned text(s) 15 - 20 pagers per week.
2. Homework, including definitions, short answer, fill-ins.
3. Given fire scenarios, determine which you would respond to first and why with a written explanation with the rationale.
4. Term paper of 5-8 pages on a topic such as Organization of Federal or State wildland firefighting agencies; History of fire suppression; Native American use of fire; Review of a major fire.
5. Oral presentation based on the term paper.
6. Midterm; 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 papers

Writing 20 - 30%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems

Problem solving 10 - 20%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Oral presentation

Skill Demonstrations 5 - 15%

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

Multiple choice, completion, short answer

Exams 40 - 60%

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

Attendance and participation

Other Category 0 - 10%

Representative Textbooks and Materials:
Firefighter's Handbook on Wildland Firefighting: Strategy, Tactics and Safety. Teie, William C. Deer Valley Press, 2003.
Wildland Firefighting: Fire Behavior, Tactics & Command. Perry, Donald G. Fire Publications, Inc., 1990.
Prescribed Burning in California Wildlands Vegetation Management. Biswell, Harold H. University of California Press: 1999.
(Textbooks are classics in the field.)