

WORKNC-612: INTRODUCTION TO VEGETATION MANAGEMENT FOR FIRE PREVENTION

Fire Resilient Landscaping

Course

- WORKNC-612: Introduction to Vegetation Management for Fire Prevention
- WORKNC-620F: Resilience in the Workplace

Effective Term

Fall 2023

CC Approval

3/17/2023

AS Approval

4/11/2023

BOT Approval

4/20/2023

COCI Approval

5/1/2023

SECTION A - Course Data Elements

Send Workflow to Initiator

No

CB04 Credit Status

Noncredit

CB22 Noncredit Category

Workforce Preparation

Discipline

Minimum Qualifications	And/Or
Vocational (short-term): Noncredit (Specific Degree and Professional Experience)	

Subject Code

WORKNC - Work Experience Noncredit

Course Number

612

Department

Work Skills Noncredit (WORKNC)

Division

Career Education and Workforce Development (CEWD)

Full Course Title

Introduction to Vegetation Management for Fire Prevention

Short Title

Veg Management/Fire Prevention

CB03 TOP Code

0109.10 - *Landscape Design and Maintenance

CB08 Basic Skills Status

NBS - Not Basic Skills

CB09 SAM Code

C - Clearly Occupational

Rationale

Since 2017, Napa County has been on the front lines of catastrophic wildfires, fueled by climate change. In response, community will and millions of dollars in local, state and federal funds are focused on wildfire resilience and prevention work around homes and in wildland areas. Many new jobs will be created.

SECTION B - Course Description**Catalog Course Description**

This course introduces students to residential and commercial landscape and building maintenance practices that reduce risk of structure loss during wildfire and guide safe and effective post-fire mitigation and clean-up. Topics will include: principles for fire risk reduction; structure hardening; defensible space; safe and proper use of appropriate tools and equipment; considerations for worker safety and worker rights; relevant laws and regulations; and appropriate prioritization and execution of actions to reduce fire risk. Working under the supervision of qualified professionals, students will visit and/or perform work at particular selected site(s) as appropriate.

SECTION C - Conditions on Enrollment**Open Entry/Open Exit**

Yes

Repeatability

Unlimited - Noncredit OR Work Experience Education

Grading Options

Pass/No Pass Only

Allow Audit

Yes

Requisites**Advisory Prerequisite(s)**

Completion of WORKNC-610.

SECTION D - Course Standards**Is this course variable hour?**

No

Total Instructional Hours

26

Distance Education Approval**Is this course offered through Distance Education?**

Yes

Online Delivery Methods

DE Modalities	Permanent or Emergency Only?
Entirely Online	Permanent
Hybrid	Permanent

SECTION E - Course Content**Student Learning Outcomes**

Upon satisfactory completion of the course, students will be able to:

1. Safely perform a variety of fire risk reduction and mitigation activities using appropriate tools and techniques.

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Explain how buildings ignite during a wildfire.
2. Discuss the prioritization and importance of various structure hardening and defensible space activities.
3. Safely perform a variety of fire risk reduction and mitigation activities using appropriate tools and techniques.

Course Content

1. Course introduction
 - a. How buildings ignite during wildfire
 - b. Three principles for fire risk reduction
2. Terminology, Laws, and Regulations
 - a. Terminology
 - i. Noncombustible
 - ii. Ignition-resistant
 - iii. Combustible
 - iv. Flammable
 - v. Wildland Urban Interface (WUI)
 - b. Fire standards and building code
 - i. American society for Testing and Materials (ASTM)
 - ii. California Building Code (CBC)
 - iii. National Fire Protection Association (NFPA)
 - iv. Local and Regional Codes and Ordinances
 - v. California contractor law and insurance requirements
3. Fire risk and risk reduction techniques for homes and structures
 - a. Combustible materials
 - b. Noncombustible materials
 - c. Vulnerable building components and techniques to reduce vulnerability
4. Fire risk and risk reduction techniques in the landscape
 - a. Defensible space
 - i. Concept
 - ii. Goals
 - b. Implementation of defensible space strategy
 - i. Zones Zero, One, and Two
 - ii. Considerations for balancing landscape design with defensible space
 - c. "Fire Safe" Plants and landscaping
 - i. The problem with plant lists
 - ii. General plant characteristics related to combustibility
 - iii. Plant placement and maintenance
 - iv. Pruning methods and their effect on plant health
 - d. Landscape structures and accessories
5. Post-fire clean up
 - a. Legal requirements
 - b. Safety considerations
 - c. Methods for remediation of non-hazardous ash
 - d. Importance of avoiding leaf blowing and other ash disturbance
6. Tool Use
 - a. Function and anatomy of appropriate hand and power tools
 - b. Safety considerations
 - c. Maintenance and storage
7. Safe workplace and worker rights
 - a. Legal requirements for safety in the workplace
 - b. Worker rights
 - i. Resources for workers
 - ii. Worker Organizing
8. Practicum Including Safety Principles

Methods of Instruction

Methods of Instruction

Types	Examples of learning activities
Lab	Individual, group and/or team site fire risk assessment exercises
Field Experience	Individual, group and/or team practice exercises using appropriate tools to perform fire risk reduction activities (4 to 6)
Observation and Demonstration	Tool identification, safe use, and maintenance exercise

Instructor-Initiated Online Contact Types

Announcements/Bulletin Boards
 Chat Rooms
 Discussion Boards
 E-mail Communication
 Video or Teleconferencing

Student-Initiated Online Contact Types

Chat Rooms
 Discussions
 Group Work

Course design is accessible

Yes

Methods of Evaluation

Methods of Evaluation

Types	Examples of classroom assessments
Essays/Papers	Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.
Problem Solving	Assessment tools, other than exams, that demonstrate competence in computational or non- computational problem solving skills. Site fire risk assessment exercises
Skills Demonstration	All skill-based and physical demonstrations used for assessment purposes including skill performance exams. Fire risk reduction activities; tool identification, safe use, and maintenance exercises
Exams/Tests	All forms of formal testing, other than skill performance exams.

Assignments

Other Assignments

Individual, group and/or team site fire risk assessment exercises
 Individual, group and/or team practice exercises using appropriate tools to perform fire risk reduction activities (4 to 6)
 Tool identification, safe use, and maintenance exercise

SECTION F - Textbooks and Instructional Materials

Material Type

Textbook

Author

Firesafe Marin and Insurance Institute for Business & Home Safety

Title

California Wildfire Retrofit Guide

Year

2021

ISBN #

PDF

Material Type

Textbook

Author

Douglas Kent

Title

Firescaping: Protecting Your Home with a Fire-Resistant Landscape

Edition/Version

2nd edition

Publisher

Wilderness Press

Year

2019

ISBN #

978-0899979625

Material Type

Open Educational Resource (OER)

Author

National Fire Prevention Association

Title

Reducing Wildfire in the Home Ignition Zone

ISBN #<https://www.nfpa.org/-/media/Files/Training/certification/CWMS/ReducingWildfireRisksHIZ.ashx>

Proposed General Education/Transfer Agreement**Do you wish to propose this course for a Local General Education Area?**

No

Do you wish to propose this course for a CSU General Education Area?

No

Do you wish to propose this course for a UC Transferable Course Agreement (UC-TCA)?

No

Course Codes (Admin Only)**ASSIST Update**

No

CB10 Cooperative Work Experience Status

N - Is Not Part of a Cooperative Work Experience Education Program

CB11 Course Classification Status

J - Workforce Preparation Enhanced Funding

CB13 Special Class Status

N - The Course is Not an Approved Special Class

CB23 Funding Agency Category

Y - Not Applicable (Funding Not Used)

CB24 Program Course Status

Program Applicable

Allow Pass/No Pass

Yes

Only Pass/No Pass

No

Reviewer Comments

Seth Anderson (sethe.anderson) (Mon, 05 Dec 2022 23:51:03 GMT): Added Vocational (short-term): Noncredit to discipline field

Seth Anderson (sethe.anderson) (Wed, 22 Feb 2023 01:52:08 GMT): Please add examples of assignments