ADLTED 748.3 Course Outline as of Fall 2024

CATALOG INFORMATION

Dept and Nbr: ADLTED 748.3 Title: FIRE RESIL LANDSC

Full Title: Fire Resilient Landscaping

Last Reviewed: 3/14/2022

Units		Course Hours per Weel	k Ni	or of Weeks	Course Hours Total	
Maximum	0	Lecture Scheduled	0	13	Lecture Scheduled	0
Minimum	0	Lab Scheduled	2.00	2	Lab Scheduled	26.00
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	26.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 0.00 Total Student Learning Hours: 26.00

Title 5 Category: Non-Credit

Grading: Non-Credit Course

Repeatability: 27 - Exempt From Repeat Provisions

Also Listed As:

Formerly:

Catalog Description:

In this course, students will be introduced 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. Students will learn 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 selected site(s) as appropriate.

Prerequisites/Corequisites:

Recommended Preparation:

Course Completion of ADLTED 740

Limits on Enrollment:

Schedule of Classes Information:

Description: In this course, students will be introduced 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. Students will learn 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 selected site(s) as appropriate. (Non-Credit Course)

Prerequisites/Corequisites:

Recommended: Course Completion of ADLTED 740

Limits on Enrollment:

Transfer Credit:

Repeatability: Exempt From Repeat Provisions

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree: Area Effective: Inactive: CSU GE: Transfer Area Effective: Inactive:

IGETC: Transfer Area Effective: Inactive:

CSU Transfer: Effective: Inactive:

UC Transfer: Effective: Inactive:

CID:

Certificate/Major Applicable:

Certificate Applicable Course

COURSE CONTENT

Student Learning Outcomes:

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

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

Objectives:

At the conclusion of this course, the student should 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.

Topics and Scope:

- I. Course Introduction
 - A. How buildings ignite during wildfire
 - B. Three principles for fire risk reduction
- II. Terminology, Laws, and Regulations
 - A. Terminology

- 1. Noncombustible
- 2. Ignition-resistant
- 3. Combustible
- 4. Flammable
- 5. Wildland Urban Interface (WUI)
- B. Fire standards and building code
 - 1. American Society for Testing and Materials (ASTM)
 - 2. California Building Code (CBC)
 - 3. National Fire Protection Association (NFPA)
 - 4. Local and Regional Codes and Ordinances
 - 5. California contractor law and insurance requirements
- III. 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
- IV. Fire risk and risk reduction techniques in the landscape
 - A. Defensible space
 - 1. Concept
 - 2. Goals
 - B. Implementation of defensible space strategy
 - 1. Zones Zero, One, and Two
 - 2. Considerations for balancing landscape design with defensible space
 - C. "Fire Safe" Plants and landscaping
 - 1. The problem with plant lists
 - 2. General plant characteristics related to combustibility
 - 3. Plant placement and maintenance
 - 4. Pruning methods and their effect on plant health
 - D. Landscape structures and accessories
- V. 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
- VI. Tool Use
 - A. Function and anatomy of appropriate hand and power tools
 - B. Safety considerations
 - C. Maintenance and storage
- VII. Safe workplace and worker rights
 - A. Legal requirements for safety in the workplace
 - B. Worker rights
 - 1. Resources for workers
 - 2. Worker Organizing
- VII. Practicum Including Safety Principles

Assignment:

- 1. Individual, group and/or team site fire risk assessment exercises (4-6)
- 2. Individual, group and/or team practice exercises using appropriate tools to perform fire risk reduction activities (4-6)
- 3. Tool identification, safe use, and maintenance exercise (2-4)

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.

None

Writing 0 - 0%

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

Site fire risk assessment exercises

Problem solving 20 - 30%

Skill Demonstrations: 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

Skill Demonstrations 20 - 30%

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

None

Exams 0 - 0%

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

Active participation and attendance

Other Category 40 - 50%

Representative Textbooks and Materials:

California Wildfire Retrofit Guide. Firesafe Marin and Insurance Institute for Business & Home Safety. PDF. 2021.

Reducing Wildfire in the Home Ignition Zone. National Fire Prevention Association. PDF. No date.

Firescaping: Protecting Your Home with a Fire-Resistant Landscape, 2nd Ed. Douglas Kent. Print. 2019.

Instructor and department prepared materials