

# Lassen Community College Course Outline

## FOR 7 Introduction to Wildland Fire

1.5 Units

### I. Catalog Description

This course provides an introduction to the elements of wildland fire behavior, fire management and suppression, and fuels management. History and policy development of forest and rangeland fire management. Topics include a substantive overview of the field of wildland fire science, ecology, and management. This course covers the elements of fire behavior, fire and fuels management, and the historical development of the field. In addition, this course will address the implications of fire suppression and climate change. This course has been approved for hybrid and online delivery.

**Recommended Preparation:** Successful completion of ENGL105 or equivalent multiple measures placement.

Transfers to CSU

General Education Area:

CSU GE Area:

17 Hours Lecture, 31 Hours Lab, 34 hours Expected Outside Class Hours, 82 Total Student Learning Hours

Scheduled: Spring

### II. Coding Information

Repeatability: Not Repeatable, Take 1 Time

Grading Option: Graded

Credit Type: Credit – Degree Applicable

TOP Code: 0114.00

### III. Course Objectives

#### A. Course Student Learning Outcomes

Upon completion of this course the student will be able to:

1. Define and explain basic terminology related to wildland fire behavior, fire ecology, and fuels management.
2. List and describe common fire and fuel measurements and classification systems.
3. Identify current and future fire management issues and potential solutions.
4. Explain the fire policy history of the United States.

#### B. Course Objectives

Upon completion of this course the student will be able to:

1. Define and explain basic terminology related to wildland fire behavior, fire ecology, and fuels management.
2. List and describe common fire and fuel measurements and classification systems.
3. Identify current and future fire management issues and potential solutions.
4. Explain the fire policy history of the United States.

### IV. Course Content

#### A. Introduction & Importance of fire

1. Definition & Terms

- 2. History
- B. Combustion
  - A. Types
  - B. Metrics of Fire and Combustion
  - C. Equations and Calculations
  - D. Combustion management
  - E. Reaction Mechanism
  - F. Temperature
- C. Fuels
  - 1. Properties
  - 2. Moisture
  - 3. Crown and ground fire
- D. Intro to Fire Ecology
  - 1. Fire Effects
  - 2. Fire and Fuels Management
  - 3. Prescribed Fire
  - 4. Managed Wildfire
  - 5. Wildland Urban Interface
  - 6. Climate Change and Fire

## V. Assignments

### A. Appropriate Readings

Required reading assignments will be made from the textbook on a regular basis. In addition, journal and articles from outside resources including video, newspapers, magazines, internet, etc. pertaining to course topics will be incorporated in the class lectures and assignments.

### B. Writing Assignments

Students will be required to complete short answer written assignments, quizzes and/or submit a research paper on a forestry topic as assigned by the instructor.

### C. Expected Outside Assignments

Outside assignments may include take home short answer written assignments, required reading of supplementary literature, term paper(s), and group research and reports.

### D. Specific Assignments that Demonstrate Critical Thinking

Critical thinking, writing assignments as listed above. Individual and group

## VI. Methods of Evaluation

### Traditional Classroom Evaluation

Comprehensive Quizzes and Exams

Written Critical Thinking Scenarios

Problem Analysis and Solution

Research and Term Papers

### Online Evaluation

Same as face-to-face instruction including a variety of evaluation methods such as: research papers, asynchronous and synchronous discussions (chat/forum), exercises/assignments, online quizzes and exams, and postings to online website.

### **Hybrid Evaluation**

All quizzes and exams will be administered during the in-person class time. Students will be expected to complete online assignments and activities equivalent to in class assignments and activities for the online portion of the course. Electronic communication, both synchronous and asynchronous (chat/forum) will be evaluated for participation and to maintain effective communication between instructor and students.

## **VII. Methods of Delivery**

Check those delivery methods for which, this course has been separately approved by the Curriculum/Academic Standards Committee.

Traditional Classroom Delivery     Correspondence Delivery

Hybrid Delivery                       Online Delivery

### **Tradition Classroom Delivery**

Methods of instruction may include, but are not limited to: lecture (including guest speakers), PowerPoint, and other media presentations, discussions, scenarios, and group presentations.

### **Online Delivery**

A variety of methods will be used, such as: research papers, asynchronous and synchronous (chat/forum) discussions, online quizzes and exams, posting to online website and email communications using the districts approved learning management system.

### **Hybrid Delivery**

A combination of traditional classroom and online instruction will be utilized. Each semester a minimum of 17 hours, or 1/3 of the lecture hours, will be taught face-to face by the instructor and the remaining hours will be instructed online through the technology platform adopted by the District. Traditional class instruction will consist of exercises/assignments, lectures, visual aids, and practice exercises. Online delivery will consist of exercises/assignments, lecture posts, discussions, adding extra resources and other media sources as appropriate.

## **VIII. Representative Texts and Supplies**

**Fire: A brief History** by Stephan Pyne, University of Washington Press 2019  
ISBN: 9780295746180

**Wildland Fire Behavior Dynamics, Principles and Processes,** CISRO Publishing 2019  
ISBN: 9781486309085

## **IX. Discipline/s Assignment**

Forestry, Fire Technology

## **X. Course Status**

Current Status: Active

Original Approval Date: 02/21/2023

Board Approval: 04/11/2023

Revised By:

Curriculum/Academic Standards Committee Revision Date: