



## Syllabus

### Introduction to Wildland Fire

#### Course Information

Semester & Year: Fall 2023

Course ID & Section #: FNR-77-E6468

Instructor's name: Madeleine Lopez

Day/Time of required meetings: Wednesday 4:00- 6:05 pm

Location: AT 127 (with some meetings in AT 107)

Course units: 2.00

#### Instructor Contact Information

Office location: AT 123 or \*Online: ZOOM\*

Office hours: Tues. 12:45- 2 pm, Fri. 10- 11:30 am, or by appointment

Phone number: (707) 476-4131

Email address: Madeleine-lopez@redwoods.edu

#### Catalog Description

An introduction to wildland fire ecology, behavior and suppression. Discussions will include: the role of fire in ecosystems; fuels, weather and fire behavior; suppression, safety, tools, and strategies; fuel treatments; organizational structures and wildland fire careers. **\*Note:** Field trips are required; the College does not provide transportation.

#### Course Student Learning Outcomes

1. Explain the relationships between fuels management, fire behavior, and fire ecology.
2. Describe basic concepts of wildland fire management including common fire and fuel measurements and classification systems.
3. Discuss the role of historical fire policy in current and future fire management issues.

#### Required Materials

1. Thomas, P.A. and R.S. McAlpine Fire in the Forest, 2010

ISBN-13: 978-0521822299

Required

\*New or used copies are acceptable\*

2. Additional readings and resources will be available via Canvas modules.

## Course Format

*Lecture/Labs:* All lectures will be in-person and synchronous (class will meet during specified days/times each week). I will deliver lectures via a mixture of PowerPoint presentations, whiteboard notes, as well as course activities. All students are required to attend each lecture during its scheduled time. There is also a required lab portion in this course, which is in-person and synchronous. The lab portion of the course will occur during the Wednesday meeting times (4- 6:05 pm). Labs will either take place in our outdoor campus, in the computer lab, or off campus. Please note that field trips are required, and the college *does not* provide transportation.

## Evaluation & Grading Policy

A: 94-100, A-: 90-<94, B+: 87-<90, B: 84-<87, B-: 80-<84, C+: 77-<80, C: 70-<77, D: 60-<70, F: <60

Type	% of Total
Quizzes and Reflections	30
In-class activities	15
Lab reports	25
Finals	25
Professionalism	5
<b>Grand Total</b>	<b>100</b>

**Module Quizzes and Reflection Questions:** The module quizzes are not cumulative but instead cover the material covered since the last Module. There are some module quizzes that will be in a partially “flipped” format where you will be required to read book chapters, watch videos, recorded lectures, etc. *before class*, take a quiz and post questions on Canvas that can be used to stimulate discussion and provide clarification during the lecture. Your module quiz that contributes the lowest points to the total will be dropped at the end. In a reflection activity, students are given reading materials or videos for review and asked to reflect by providing questions or a thoughtful response. Reflections are relatively low stakes and mostly designed to give me a sense of what material I should work on clarifying during lecture.

**Final Project:** The purpose of the final project is to synthesize the information learned in this course and demonstrate scientific literacy and critical thinking skills related to wildland fire. The project will use scientific literature and research to deepen student understanding of relationships between fuels management, fire behavior, and fire ecology and the role of historical fire policy in current management issues. Students are expected to submit a written report as well as deliver and oral presentation.

**Lab Reports:** Students will be responsible for completing individual lab assignments for the course and will submit them via Canvas. These will consist of a full write-up and data analysis for each lab activity, following the guidelines provided.

**Late/missing work policy:** Assignments and quizzes are to be completed and turned in by the date indicated. Please plan ahead, as late assignments will be penalized and lose 5% for each day they are late. If a serious and compelling issue should arise and prevent you from turning in the assignment on time (e.g. death in the family, hospitalization), please contact me in advance and we will work out an alternative plan. Please see me immediately if something in the foreseeable future is approaching as well. My goal is to help every student effectively learn and grow in this course, as such, I will remain open and flexible.

**Communication via Emails:** If you have questions about grades, or other personal or confidential matters, please reach out! When sending an email please be sure to **label the subject line as “FNR 77”** to ensure your email gets flagged. Always email me directly (links are on the home page) using your CR email.

**Drop Policy:** You may be dropped from the class if you miss 3 or more weeks of class participation, discussion, assignments or labs prior to the end of week 10.

**Academic Dishonesty:** All assignments must be completed individually and should represent your own effort and understanding. Instances where it is clear that work has been shared and copied, or otherwise derived from other's work, will result in both students receiving a clear warning and a zero on the assignment. A second instance will result in failure of the class and reported to the University.

## Emotional Accessibility & Support

College of the Redwoods is committed to providing reasonable accommodations for qualified students who could benefit from additional educational support and services. You may qualify if you have a physical, mental, sensory, or intellectual condition which causes you to struggle academically, including but not limited to:

- Mental health conditions such as depression, anxiety, PTSD, bipolar disorder, and ADHD
- Common ailments such as arthritis, asthma, diabetes, autoimmune disorders, and diseases
- Temporary impairments such as a broken bone, recovery from significant surgery, or a pregnancy-related disability
- A learning disability (e.g., dyslexia, reading comprehension), intellectual disability, autism, or acquired brain injury
- Vision, hearing, or mobility challenges

Available services include extended test time, quiet testing environments, tutoring, counseling and advising, alternate formats of materials (e.g., audio books, E-texts), assistive technology, on-campus transportation, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact [Disability Services](#)

[and Programs for Students \(DSPS\)](#). If you are unsure whether you qualify, please contact DSPS for a consultation: [dsp@redwoods.edu](mailto:dsp@redwoods.edu).

- Eureka: 707-476-4280, Student Services Building, 1st floor
- Del Norte: 707-465-2324, Main Building, near the library
- Klamath-Trinity: 707-476-4280

If you are taking online classes DSPS will email approved accommodations for distance education classes to your instructor. In the case of face-to-face instruction, please present your written accommodation request to your instructor at least one week before the needed accommodation so that necessary arrangements can be made. Last minute arrangements or post-test adjustments usually cannot be accommodated.

## Student Support

Good information and clear communication about your needs will help you be successful. Please let your instructor know about any specific challenges or technology limitations that might affect your participation in class. College of the Redwoods wants every student to be successful.

## Course Outline and Objectives

### Course Objectives

- Historical context of wildland fire in the world and how this has changed through time.
- Physics and components of fire process.
- Fuel moisture, chemical makeup, shape, and loading on the landscape.
- Fire intensity and anatomy.
- Weather and climate as fire modifiers.
- Fire patterns and complexity in the wild.
- Fire on the landscape.
- Fire management concepts and organization.
- Fire ecology.
- Fire in California ecosystems.

### Course Outline for lecture and lab

**CONCEPTS:** What terms and ideas will students need to understand and be conversant with as they demonstrate course outcomes? 1. Wildland fire as a natural component of ecosystems. 2. Influences of topography on fuels, ecology, and behavior. 3. Direct vs. indirect strategies in wildland fire suppression. 4. Fire and the wildland - urban interface. 5. Fuel characteristics. 6. Fire regimes, severity, intensity, and recurrence intervals. 7. Species adaptations to fire regimes. 8. Fire weather. 9. Influence of historical suppression and fire use on ecosystems. **THEMES & ISSUES:** What motifs, if any, are threaded throughout the course? What primary tensions or problems inherent in the subject matter will students engage? 1. Risk assessment in the use and suppression of wildland fire. 2. Climate change impacts on wildland fuels and fire behavior. 3. Safety of fire fighters in a complex and dynamic environment. **SKILLS:** What abilities must students use to demonstrate course outcomes? (e.g., use a scientific calculator, read college-level texts, safely use power tools, etc.) 1. Ability to understand strict safety guidelines in suppression activities. 2. Fire line construction techniques and proper use of tools.

## Admissions deadlines & enrollment policies

### Fall 2023 Dates

- August 18<sup>th</sup>: Last day to register for classes (day before the first class meeting)
- August 19<sup>th</sup>: Classes begin
- August 25<sup>th</sup>: Last day to add a class
- September 1<sup>st</sup>: Last day to drop without a “W” and receive a refund
- September 4<sup>th</sup>: Labor Day Holiday (All Campuses Closed)
- September 5<sup>th</sup>: Census Date (20% of class)
- October 26<sup>th</sup>: Last day to petition to graduate
- October 27<sup>th</sup>: Last day for student initiated withdrawal (62.5% of class)
- October 27<sup>th</sup>: Last day for faculty initiated withdrawal (62.5% of class)
- November 11<sup>th</sup>: Veterans Day (All Campuses Closed)
- November 20<sup>th</sup>-25<sup>th</sup>: Thanksgiving break (no classes)
- November 22<sup>nd</sup>-24<sup>th</sup>: No Classes, all campuses closed
- December 9<sup>th</sup>-15<sup>th</sup>: Final Examinations
- December 15<sup>th</sup>: Last day to file for P/NP option
- December 15<sup>th</sup>: Semester Ends
- December 22<sup>nd</sup>: Grades due
- January 5<sup>th</sup>: Grades available

## Academic dishonesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct ([AP 5500](#)) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the [College Catalog](#) and on the [College of the Redwoods website](#).

## Disruptive behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct ([AP 5500](#)) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the [College Catalog](#) and on the [College of the Redwoods website](#).

## Inclusive Language in the Classroom

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. It therefore encourages instructors and students to use language that is inclusive and respectful.

## Setting Your Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact [Admissions & Records](#) to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. This does not change your legal name in our records. See the [Student Information Update form](#).

## Canvas Information

If using Canvas, include navigation instructions, tech support information, what Canvas is used for, and your expectation for how regularly students should check Canvas for your class.

Log into Canvas at <https://redwoods.instructure.com>

Password is your 8 digit birth date

For tech help, email [its@redwoods.edu](mailto:its@redwoods.edu) or call 707-476-4160

Canvas Help for students: <https://webapps.redwoods.edu/tutorial/>

Canvas online orientation workshop: [Canvas Student Orientation Course \(instructure.com\)](#)

## Community College Student Health and Wellness

Resources, tools, and trainings regarding health, mental health, wellness, basic needs and more designed for California community college students, faculty and staff are available on the California Community Colleges [Health & Wellness website](#).

[Wellness Central](#) is a free online health and wellness resource that is available 24/7 in your space at your pace.

Students seeking to request a counseling appointment for academic advising or general counseling can email [counseling@redwoods.edu](mailto:counseling@redwoods.edu).

## Emergency procedures / Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor <https://webadvisor.redwoods.edu> and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or [security@redwoods.edu](mailto:security@redwoods.edu) if you have any questions. For more information see the [Redwoods Public Safety Page](#).

In an emergency that requires an evacuation of the building anywhere in the District:

- Be aware of all marked exits from your area and building
- Once outside, move to the nearest evacuation point outside your building
- Keep streets and walkways clear for emergency vehicles and personnel

Do not leave campus, unless it has been deemed safe by the campus authorities.

## **Eureka Campus Emergency Procedures**

Please review the [campus emergency map](#) for evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information on Public Safety go to the [CR Police Department-Public Safety](#). It is the responsibility of College of the Redwoods to protect life and property from the effects of emergencies within its own jurisdiction.

In the event of an emergency:

1. Evaluate the impact the emergency has on your activity/operation and take appropriate action.
2. Dial 911, to notify local agency support such as law enforcement or fire services.
3. Notify Public Safety 707-476-4111 and inform them of the situation, with as much relevant information as possible.
4. Public Safety shall relay threat information, warnings, and alerts through the Everbridge emergency alert system, Public address system, and when possible, updates on the college website, to ensure the school community is notified.
5. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet, (evacuation to a safe zone, shelter in place, lockdown, assist others if possible, cooperate with First Responders, etc.).
6. If safe to do so, notify key administrators, departments, and personnel.
7. Do not leave campus, unless it is necessary to preserve life and/or has been deemed safe by the person in command.

## **Student Support Services**

The following online resources are available to support your success as a student:

- [CR-Online](#) (Comprehensive information for online students)
- [Library Articles & Databases](#)
- [Canvas help and tutorials](#)
- [Online Student Handbook](#)

[Counseling](#) offers assistance to students in need of professional counseling services such as crisis counseling.

Learning Resource Center includes the following resources for students

- [Academic Support Center](#) for instructional support, tutoring, learning resources, and proctored exams. Includes the Math Lab & Drop-in Writing Center
- [Library Services](#) to promote information literacy and provide organized information resources.
- [Multicultural & Diversity Center](#)

Special programs are also available for eligible students include

- [Extended Opportunity Programs & Services \(EOPS\)](#) provides services to eligible income disadvantaged students including: textbook award, career academic and personal counseling, school supplies, transportation assistance, tutoring, laptop, calculator and textbook loans, priority registration, graduation cap and gown, workshops, and more!

- The TRiO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in [Eureka](#) or in [Del Norte](#)
- The [Veteran's Resource Center](#) supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821