



Syllabus

Introduction to Wildland Fire

Course Information

Semester & Year: Fall 2025

Course ID & Section #: FNR-77-E0407

Instructor's name: Madeleine Lopez

Day/Time of required meetings: Online & Wednesday 3:30- 6:40 pm

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

Course units: 3.00

Instructor Contact Information

Office location: AT 123 or *Online: ZOOM*

Office hours: Thurs. 5- 6 pm, Fri. 10- 11:30 am, by appointment

Phone number: (707) 476-4131

Email address: Madeleine-lopez@redwoods.edu

Catalog Description

An introduction to wildland fire ecology, behavior, and management. Topics include the role of fire in ecosystems; fuels, weather and fire behavior; suppression, safety, tools, and strategies; 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.
4. Lab: Investigate the effects and behavior of fire

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 Calendar & Format Information:

Course Schedule: Everything for this course schedule wise is listed Canvas. You will find all pertinent information regarding the schedule within our Canvas course. Please be sure to check Canvas often!

Course Format: This semester FNR-77 is a 'Hybrid' modality- which includes in-person lab and asynchronous lecture content each week. Please check Canvas to stay up to date with assignments, readings, quizzes, and reflections.

Lab: All lab activities will be in-person and synchronous (class will meet during specified days/times each week). All students are required to attend each lab session during the scheduled time. The lab portion of the course occurs during the Wednesday meeting times (3:30- 6:40 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.

Lecture: The lecture portion of the course will be conducted asynchronously in the online environment. The lecture materials will include readings, earning NWCG certificate courses (S-190, S-130, L-180), videos, pre-recorded lectures, and guest lectures. I will provide online content at the start of the week on Monday. Plan to check Canvas often, and always be sure to check before our scheduled meeting session. Additionally, there will be select lecture content delivered in person in the form of PowerPoint and/or Whiteboard notes to support some lab exercises.

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 and assignments	15
Lab reports	25
Finals	25
Professionalism	5
Grand Total	100

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 or watch videos *before class*, then take a quiz and post questions on Canvas that can be used to stimulate discussion and provide clarification during the in-person sessions. 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 our in-person sessions.

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 an 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. Technical report writing is an important skill in FNR, as such, there will be two full lab report write-ups in FNR 77.

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. Work submitted 10 or more days past the deadline will receive a 50% deduction. No late work is accepted after 20 days past the due date. 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.

Educational 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 (such as dyslexia, reading comprehension), intellectual disability, autism, or acquired brain injury
- Vision, hearing, or mobility challenges

Available services include extended test time, quiet testing environments, academic assistance and tutoring through the [LIGHT Center](#), counseling and advising, alternate formats of course materials (e.g., audio books, braille, E-texts), assistive technology, learning disability assessments, approval for personal attendants, interpreters, priority registration, on-campus transportation, adaptive physical education and living skills courses, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact [Student Accessibility Support Services \(SASS\)](#). If you are unsure whether you qualify, please contact Student Accessibility Support Services (SASS) for a consultation: sass@redwoods.edu.

SASS office locations and phone numbers

Eureka campus

- Phone: 707-476-4280
- Location: Student Services Building, first floor

Del Norte campus

- Phone: 707-465-2324
- Location: Main Building, next to the library

Klamath-Trinity campus

- Phone: 707-476-4280

Student Support Services

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.

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

[CR Online Learning Support](#)

Tech support, laptop loans, guides to using Canvas, installing Office 365 for free, and more.

[Library Articles & Databases](#)

Find the best library databases for your research.

[Online Tutoring Resources](#)

Participate in tutoring over Zoom.

To learn more about the resources available to you, click on a title bar below, or click the down arrow to expand them all.

Klamath-Trinity students can contact the CR Klamath-Trinity Office for specific information about student support services at 530-625-4821.

Community College Student Health and Wellness

National Suicide Prevention Lifeline

If you are in distress or are with someone at risk right now, call or text the National Suicide Prevention Lifeline.

Call the National Suicide Prevention Lifeline
1-800-273-TALK (8255)

Text the National Suicide Prevention Lifeline
741-741

Timely Care

When you're not feeling well physically or distressed mentally, Timely Care can offer the help you're looking for in just a few quick taps. Students can schedule an appointment anytime via phone, video, and chat. [Log in or set up an account with Timely Care.](#)

Mental Health Counseling

Students should text, email, or fax Shawna Bell directly for scheduling and/or services.

Text: 707-496-2856
Email: shawnabmft@gmail.com
Fax and voicemail: 707-237-2318

Wellness Central

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 [Wellness Central](#).

Counseling

[Counseling and Advising](#) can assist students in need of academic advising and professional counseling services. Call, email or stop by one of our offices to make an appointment!

Counseling and Advising office locations and contact info

Eureka campus

- Phone: 707-476-4150
- Location: Student Services Building, first floor
- Email: counseling@redwood.edu
- Hours: Monday through Friday, 9am to 4pm. Summer hours may vary

Del Norte campus

- Phone: 707-476-2300
- Location: Main Building, next to the library
- Hours: Summer hours may vary

Klamath-Trinity campus

- Phone: 530-625-4821
- Email: KT-staff@redwoods.edu
- Hours: Summer hours may vary

Basic Needs Center

[The Basic Needs Center](#) provides for the health and safety of students by providing access to healthy food, financial resources, and referrals to safe and secure housing. [Submit a request for services and information.](#)

Basic Needs Center contact info

- Phone: 707-476-4153
- Email: retention@redwoods.edu

Learning Resource Center

The Learning Resource Center includes the following resources for students:

Library Services

[Library Services](#) promotes information literacy and provides organized information resources.

Academic Support Center

The [Academic Support Center](#) offers tutoring and test proctoring for CR students.

Student Tech Help

[Student Tech Help](#) provides students with assistance around a variety of tech problems.

Extended Opportunity Programs and Services (EOPS)

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

TRiO Student Success Program

The TRiO Student Support Services Program provides eligible students with a variety of services including academic advising, career assessments, assistance with transfer, and peer mentoring. Students can apply for the program with the [Eureka TRiO office](#) or the [Del Norte TRiO office](#).

Veterans Resource Center

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.

CalWORKS

California Work Opportunity & Responsibility to Kids ([CalWORKs](#)) provides supportive services to student parents with children under the age of 18, who are receiving cash assistance (TANF benefits), to become self-sufficient. Services include: transportation assistance, basic student supplies, tutoring, priority registration, laptop and calculator loans, career, academic, and personal counseling, and more!

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 [2023-2024 College Catalog](#) and [CR Board and Administrative Policies](#).

AI Use Class Policy

Recent advancements in generative artificial intelligence (AI) have made large language models such as ChatGPT and Google's Bard widely available. However, overuse of these tools in this class can undermine your learning and curtail the development of your critical and creative thinking skills. In addition, AI outputs are often unreliable and frequently subject to bias. For these reasons, the policy of

this class is that AI cannot be used at any point in the completion of class assignments, including discussion posts. Any or all of your assignment submissions and discussion posts may be screened by AI detection software, but the real penalty for AI misuse is that you will miss out on an opportunity to learn.

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. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the [2025-26 College Catalog](#) and [CR Board and Administrative Policies](#).

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

Log into Canvas at [My CR Portal](#)

For help logging in to Canvas and general tech help, visit [Student Technical Support](#)

Once you're logged in to Canvas, you click on the Help icon on the left menu

Canvas online orientation workshop: [Canvas Student Orientation Course](#)

Setting Your Preferred Name and Pronouns in Canvas

Students have the ability to display personal pronouns and an alternate first name in Canvas. Students may change their pronouns on their own in Canvas (Account :: Settings :: Edit Settings). To request a change to your preferred list name, contact [Admissions & Records](#). 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 \(pdf\)](#).

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](#) and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

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

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

Admissions deadlines & enrollment policies

Fall 2025 Dates

09/01 – Labor Day – Campus Closed

09/07 – last day to add classes*

09/07 – last day to drop without a W grade*

09/08 – CENSUS DAY*

09/15 – census rosters are due*

10/30 – last day to petition to graduate with a fall graduation date

10/31 – last day for student/faculty withdrawal

11/11 – Veteran's Day – Campus Closed

11/24 & 11/25 – Fall Break – no classes

11/26 – 11/28 – Thanksgiving – campus closed

12/13 to 12/19 – final exams

12/19 - Last day to file P/NP

12/19 – semester ends

12/22 to 12/26 – campus closed

12/26 – **GRADES DUE**

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

- Wildland fire as a natural component of ecosystems.
- Influences of topography on fire.
- Wildland fire suppression.
- Fire and the wildland - urban interface.
- Fuel characteristics.
- Fire regimes, severity, intensity, and recurrence intervals.
- Species adaptations to fire regimes.
- Influence of historical suppression and fire use on ecosystems

Below is an outline of lecture topics in this course might include:

- Introduction & Why Fire Matters
- Fire and Humans in North America
- Climate Change and Fire
- Wildland Urban Interface
- Combustion
- Fuel Properties
- Fuel Moisture
- Intro. to Fire Behavior
- Crown and Ground Fires
- Intro. to Fire Ecology
- Intro. to Fire Effects
- Fire and Fuels Management
- Prescribed Fire
- Managed Wildfire

Lab Outline

- Metrics of Fire and Combustion
- Fuel Loading
- Fuel Moisture
- Fire Behavior
- Fire Modeling
- Fire Ecology
- Duff consumption
- Statistical analysis used in fire research

Other themes, issues and skills include:

- Fire effects and behavior in wildland environments.
- Fireline construction techniques and proper use of tools.
- Analysis of fire effects and fuels data.