



	Instructor	Teaching Assistant
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Office	Tuesday and Thursday	Monday and Wednesday
Hours:	09:30-11:30 or by appointment	1:00-2:30

Term:	Fall 2018
Class Meeting Days:	Tuesday and Thursday
Class Meeting Hours:	8:00-9:15 AM
Class Location:	Natural Resources Room 140
Course Credits:	3

Welcome!

Wildland fires are a critical physical and ecological phenomena that shape the structure and function of our vegetative landscapes around the globe and have played a major role in the development and success of humans as a species. However, wildfires remain a serious threat to society causing damage to property and critical infrastructure, negatively impacting the goods and services mankind expects from wildlands and resulting in the loss of life. Inherently the study of wildland fire is highly diverse spanning topics as far ranging as organic chemistry to political science. As a starting point or introduction to fire this class will emphasize gaining an understanding of the underlying physical and ecological principles that influence the behavior of wildland fires, how fires shape our forests and rangelands and the approaches we use to manage wildland fires.

It is my hope that these topics spur your curiosity and interest in wildland fire and act as a jumping off point for continued learning.

Course Goals and Objectives

At the conclusion of this course, students will be able:

- Explain the relationship between wildland fuels, weather, topography and fire behavior

- Discuss the role of fire as an ecosystem process and describe methods to detect the historical role of fire in different ecosystems
- Discuss the implications of fire on wildland ecosystems
- Communicate the basic concepts of various wildland fire management strategies including goals, techniques and purpose
- Develop a working vocabulary and understanding of common wildland fire terminology related to fire behavior, fire effects and fire management.

Course Prerequisites

LAND/LIFE 220 or LIFE 230

Required Texts and Materials

There are no required textbooks for this course.

Your readings in this class will be provided on the class website. The readings will expand upon concepts covered in class and provide additional background material. In addition to readings I have provided several class handouts for you to utilize. Class handouts consist of equations utilized in class and/or important information needed to complete the exercises in class and on homework assignments. I expect you to have read the assigned readings before the start of class.

Library & Research Help

The CSU Libraries Help Desk provides basic research and technical assistance either in person at Morgan Library or by phone at 970-491-1841. Virtual assistance is also available via the Libraries' Ask Us chat and email services (<http://lib.colostate.edu/help/ask-us>). Jocelyn Boice is the librarian supporting the Forest and Rangeland Stewardship Department and this course. Contact her for in-depth assistance at: jocelyn.boice@colostate.edu / 970-491-3882.

Important Dates to Remember

Last Day to Add/Drop Classes Without an Instructor Override: Sun, Aug 26th 2018
 Registration Closes: Wed, Sept 5th 2018
 Withdrawal Deadline: Mon, Oct 15th 2018
 Fall Recess: Sat, Nov 17th – Sun, Nov 25th, 2018
 Last Day to Process a University Withdrawal: Fri, Dec 7th, 2018
 Final Examination: TBA

Course Schedule and/or Schedule of Assignments

All dates and assignments listed below are tentative and are subject to change at my discretion.

Week #	Lecture Title
1	Class overview and How a fire burns
2	From combustion to fire spread and behavior
3	Fire in wildland landscapes: Ignition and wildland fuels
4	Fire in wildland landscapes: topography and fire weather
5	Fire in wildland landscapes: topography and fire weather
6	Fire in wildland landscapes: fire dynamics and extreme fire behavior

7	Midterm exam
8	How Fires shape the forest: Plant and Animals
9	Environmental impacts of fires: Soils water and air
10	How fires shape the wildlands: Patterns of fire through time
11	Fire Regimes and Fire History: Discovering evidence of past fires in our forests
12	Fire Management : Fire Suppression Organization, Tools and Techniques
13	Fire Management: Fuels Management (Hazard and risk)
14	Fire Management: Forest Restoration, prescribed fire, and wildland fire use
15	Fire Management: The Wildland Urban Interface
16	Final Exam

Basis for Final Grade

In this class, you will be assessed using a combination of in class quizzes, class assignments, a midterm exam and a final exam. You will be graded using a standard A through F scale as follows: A > 90%, B > 80%, C > 70%, D > 65%, F < 65%.

<u>Assessment</u>	<u>Percent of Final Grade</u>
Class Quizzes	25%
Class Assignments	25%
Midterm Exam	25%
Final Exam	25%
	100%

Quizzes:

We will have one quiz each week throughout the semester to test your understanding of the lecture material and assigned readings. Quizzes will be based on the previous week's material and will consist of 3-5 short answer, multiple choice or true and false questions.

Class Assignments:

Throughout the class we will have several class assignments. Each assignment will provide you with an opportunity to explore topics covered in class in more depth by asking you to use the material presented in class and apply it to a case study related to an aspect of wildland fire science. Further details of each assignment can be found on the class website.

Midterm and Final Exam:

The midterm and final exam will consist of short answer questions, multiple choice, fill in the blank and true-false-type questions. The final exam will be a comprehensive exam consisting of questions related to material presented throughout the semester.

Course Policies

Late Work Policy

There are no make-ups for homework assignments, in-class assignments, labs, or exams. Any assignment turned in late will be assessed a penalty: a half-letter grade if it is one day late, or a full-letter grade for 2-5 days late. Assignments will not be accepted if overdue by more than 5 days.

Extra Credit Policy

There are no extra credit assignments in this class.

Grades of "Incomplete"

Per university policy, an instructor may assign temporary grade of Incomplete to a student who demonstrates that he or she could not complete the requirements of the course due to circumstances beyond the student's control and not reasonably foreseeable. A student must be passing a course at the time that an Incomplete is requested unless the instructor determines that there are extenuating circumstances to assign an Incomplete to a student who is not passing the course. When an instructor assigns an Incomplete, he or she shall specify in writing using the Department Incomplete Grade Form the requirements the student shall fulfill to complete the course as well as the reasons for granting an Incomplete when the student is not passing the course. The instructor shall retain a copy of this statement in his or her grade records and provide copies to the student and the department head or his or her designee. (Section I.6 of the *Academic Faculty and Administrative Professional Manual*)

Disability Access

Colorado State University is committed to providing reasonable accommodations for all persons with disabilities. Students with disabilities who need accommodations must first contact Resources for Disabled Students before requesting accommodations from the professor. Resources for Disabled Students (RDS; <http://rds.colostate.edu/home>) is located in room 100 of the General Services Building. Their phone is (970) 491-6385 (V/TDD). Students who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations.

Attendance Policy

Attendance is not monitored during class. However, there are no make-ups allowed in this class, including in-class questions/quizzes. It is your responsibility to attend class and ensure your success.

If you will be missing a class for any reason (participation in official University activities, e.g., an out-of-town athletic event, or special religious observances) it is your responsibility to discuss this with me before the class date. If you are sick or hospitalized and miss a class please contact me as soon as possible so we can make arrangements. Again class attendance and success in this class is your responsibility.

Religious Accommodation

Participation in official University activities, e.g., an out-of-town athletic event, or special religious observances may provide a legitimate reason for an excused absence. The student is responsible for discussing this with the instructor at the beginning of the semester.

Final Exam Policy

Final examination week is part of the regular semester. Student attendance shall be consistent with University policy.

If a student has three or more final examinations (not classes) scheduled for the same day or if conflicts of examination times occur, the student may negotiate a time change with the instructors involved. If the parties involved cannot find a mutually agreeable time, the Registrar's Office indicates which courses must be changed. **Note:** The Registrar's Office must be notified at least one week prior to Final Examination Week to allow instructors time to make appropriate accommodations. It is the student's responsibility to initiate negotiations.

Any student who has a conflict with the examination schedule must inform the instructor as soon as possible before the examination. If an agreement cannot be reached between the instructor and student as to the appropriateness of a make-up examination the student should appeal to the department head.

<http://www.registrar.colostate.edu/final-exams>

Academic Integrity

The Department of Forest and Rangeland Stewardship takes academic integrity seriously. At minimum, academic integrity means that no one will use another's work as their own. The CSU writing center defines plagiarism this way:

Plagiarism is the unauthorized or unacknowledged use of another person's academic or scholarly work. Done on purpose, it is cheating. Done accidentally, it is no less serious. Regardless of how it occurs, plagiarism is a theft of intellectual property and a violation of an ironclad rule demanding "credit be given where credit is due."

Source: (Writing Guides: Understanding Plagiarism.

<http://writing.colostate.edu/guides/guide.cfm?guideid=17>)

If you plagiarize in your work you could lose credit for the plagiarized work, fail the assignment, or fail the course. Each instance of plagiarism, classroom cheating, and other types of academic dishonesty will be addressed according to the principles published in the CSU General Catalog (under "Academic Integrity/Misconduct: <http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/> .)

Of course, academic integrity means more than just avoiding plagiarism. It also involves doing your own reading and studying. It includes regular class attendance, careful consideration of all class materials, and engagement with the class and your fellow students. Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, we will ask to you sign the CSU Honor Pledge as part of completing all of our major assignments. While you will not be required to sign the honor pledge, we will ask each of you to write and sign the following statement on your papers and exams:
"I have not given, received, or used any unauthorized assistance."

Title IX Information

CSU's Student Sexual Harassment and Violence policy, following national guidance from the Office of Civil Rights, requires that faculty follow CSU policy as a "mandatory reporter" of any personal disclosure of sexual harassment, abuse, and/or violence related experiences or incidents shared with the faculty member in person, via email, and/or in classroom papers or homework exercises. These disclosures include but are not limited to reports of personal relational abuse, relational/domestic violence, and stalking. While faculty are often able to help students locate appropriate channels of assistance on campus (e.g., see the CSU Health Network link below), disclosure by the student to the faculty member requires that the faculty member inform appropriate CSU channels to help ensure that the student's safety and welfare is being addressed, even if the student requests that the disclosure not be shared.

For counseling support and assistance, please see the CSU Health Network, which includes a variety of counseling services that can be accessed at: <http://www.health.colostate.edu/>. And, the Sexual Assault Victim Assistance Team is a confidential resource for students that does not have a reporting requirement and that can be of great help to students who have experienced sexual assault. The web address is <http://www.wgac.colostate.edu/need-help-support>. Source: <http://oeo.colostate.edu/title-ix-sexual-assault>

Non-Discrimination Statement

Colorado State University does not discriminate on the basis of race, age, creed, color, religion, national origin or ancestry, sex, gender, disability, veteran status, genetic information, sexual orientation, gender identity or expression, or pregnancy. The University complies with the Civil Rights Act of 1964, as amended, related Executive Orders 11246 and 11375, Title IX of the Education Amendments Act of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, Section 402 of the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, the Age Discrimination in Employment Act of 1967, as amended, The Pregnancy Discrimination Act of 1978, Americans with Disabilities Act of 1990, the Civil Rights Act of 1991, the ADA Amendments Act of 2008, the Genetic Information Nondiscrimination Act of 2008, and all civil rights laws of the State of Colorado. Accordingly, equal opportunity of employment and admission shall be extended to all persons. The University shall promote equal opportunity and treatment in employment through a positive and continuing affirmative action program for ethnic minorities, women, persons with disabilities, and veterans. The Office of Equal Opportunity is located in 101 Student Services. Source: <http://oeo.colostate.edu/non-discrimination-statement>