

Global Wildfire

GEOG 199, Spring 2024



Course Overview

Wildland fire is one of the most important natural disturbances at a local and global scale. This course will serve as an introduction to wildfire in the Pacific Northwest and throughout the world, examining many aspects of fire. The course is divided into five components: 1) weather and fuels that result in a range of fire behavior and the effects of fire on plants and animals, 2) U.S. policies and practices surrounding wildfire (e.g. history of fire suppression, smoke regulations, indigenous burning, live wildfire monitoring, post-fire restoration and rebuilding), 3) tools for long-term monitoring and predicting wildfire and interactions with other disturbances like drought and insects, 4) global fire regimes, and 5) role of media and art in influencing values and perceptions of fire.

Learning Outcomes

By the end of the course students will be able to:

- To locate, read, and interpret data from a line graph, bar graph, or pie chart
- Understand the basics of fire behavior and the effects of fire on plants and animals, including adaptations of species to fire
- Understand the patterns and controls influencing wildfires at a local and global scale
- Recognize the key historical land management policies to place the current fire landscape in the Pacific Northwest in a longer-term context
- Articulate key characteristics of infrequent and frequent fire regimes across the world
- Develop an in-depth understanding of one ecosystem of their choice which will be synthesized into an infographic
- Evaluate the role of media and art in influencing public opinion about wildfire
- Communicate complex ideas, problems, or issues effectively through the strategic use of images in an infographic
- Articulate the key issues in fire ecology required to move society towards more sustainable fire management

Course and Instructor Information

CRN: GEOG 199

Meeting Times: Tues and Thurs from 2 to 3.50 pm

Meeting Location: Lillis 112

Instructor: Dr. Melissa Lucash, Research Assistant Professor of Environmental Studies and Geography

Email: Please use Canvas email if possible. If not, use mlucash@uoregon.edu

Office Hours: Monday at 10 am; Thursday at 9 am

Office Location: Columbia 245

Instructor: Wesley Rancher, M.S. student in Geography

Email: Please use Canvas email if possible. If not, use wesr@uoregon.edu

Office Hours: Tuesday at 10 am; Friday at 10 am

Office Location: Columbia 246

Course materials

You don't need to buy a book! Course materials are freely available online via PDF or via the UO library. I will put all the PowerPoint presentations on Canvas.

Course modality

This is an in-person course and I will not be recording my lectures. We will meet during scheduled class meeting times. I will accommodate absences as described in the Absence policy below. If you need additional flexibility, UO encourages you to consider ASYNC WEB courses. If you need accommodation related to a medical or other disability, you can request those by working with the Accessible Education Center.

Absence policy

This is a face-to-face course. Attendance is important because we will develop our knowledge through in-class activities that require your active engagement. We'll have discussions that will be richer for your presence, and that you won't be able to benefit from if you are not there. Excessive absences make it impossible to learn well and succeed in the course. If you are sick or have a family emergency and cannot attend class, you do not need to email me, and you never need to provide a reason for your absence (per UO policies). I recognize that you may miss two in-class activities during the term for illness or another critical emergency so I will allow you to drop the grade from two classroom discussions. Please take absences when necessary. If you need help catching up in the course due to illness, please come to office hours.

Course communications

Class rosters are provided to instructors with students' legal names. Please let me know if the name or pronouns I have for you are not accurate. I want to address you properly.

When I need to get in touch with individual students, I will do so via Canvas email. When giving feedback on assignments, I do so via Canvas, and the turnaround time for feedback is generally one week.

If you want to communicate with me outside of course, it's best to attend office hours (see below) or email me via Canvas email so it doesn't get overshadowed by my other emails. That said, if you don't have access to Canvas email and need to reach me, feel free to use my uoregon email address (mlucash@uoregon.edu). Either way, I try to respond to questions within one business day. I seldom respond to emails after 8pm; I respond sporadically to emails on weekends.

Office hours

I enjoy talking with students about wildfire! Wondering how what we're learning relates to current events or career choices? Please be in touch! If you are having trouble with some aspect of the course, I'd be happy to meet with you. I believe every student can succeed in this course, and I care about your success. I will host office hours each week and I also welcome meetings outside my regular office hours as well. Just email me to set a time.

Grading

In-class activities (18 total, 1.5 pts each, drop two lowest scores so only 16 count) = 24 pts

In-class midterm= 20 pts

Project (infographic)= 36 pts; Topic 2pts, draft 10 pts, final 24 pts.

Final exam= 20 pts

Total = 100 pts

Late penalties of 5% per day are automatically added to your score via Canvas for assignments associated with the infographic project. Infographic assignments will be graded within 7 days of submission so work turned in six days after the due date will not receive any credit.

Grade	% of 100		Grade	% of 100
A+	96.5 -100		C	72.5-76.4
A	92.5-96.4		C-	69.5-72.4
A-	89.5-92.4		D+	66.5-69.4
B+	87.5-89.4		D	62.5-66.4
B	82.5-86.4		D-	59.5-62.4
B-	79.5-82.4		F	<59.4
C+	76.5-79.4			

Schedule and Readings

Week	Date	Topic	Readings and Due Dates
Introduction and Concepts			
1 Tu	April 2	What is the problem?	None!
1 Th	April 4	Fire behavior and weather	https://extension.oregonstate.edu/catalog/pub/em-9341-fire-behavior
2 Tu	April 9	Plant adaptations to fire	Fire on earth (FOE): an introduction, 2014. Chapter 7
2 Th	April 11	Post-fire effects on plants, animals, and insects	FOE, Chapter 8 https://extension.oregonstate.edu/for-ests/fire/how-do-wildfires-affect-bees
U.S. Policies and Practices			
3 Tu	April 16	Land use history, including fire suppression	
3 Th	April 18	Smoke and human health	
4 Tu	April 23	Fire adaptive communities	
4 Th	April 25	Live wildfire monitoring and evacuation (Guest lecture)	
5 Tu	April 30	Post-fire restoration and rebuilding	
5 Th	May 2	Midterm (in-class or on Zoom)	
Art and Media			
6 Tu	May 7	Art and cartography	
6 Th	May 9	Role of media (Guest lecture)	Infographic topic due
Global concepts			
7 Tu	May 14	Indigenous fire (Guest lecture)	
7 Th	May 16	Interactions with other disturbances	Infographic draft due
8 Tu	May 21	Wildfire modeling	
8 Th	May 23	Invasive species	In-class infographic peer review
Global applications			
9 Tu	May 28	Frequent fire regimes in South America	
9 Th	May 30	Frequent fire regimes in Australia	Final infographic due
10 Tu	Jun 4	Infrequent fire regimes in Asia (Zoom lecture)	
10 Th	Jun 6	Frequent fire regimes in Africa	
Th	June 13	Final Exam (in-class or on Zoom). 12.30 pm	

Classroom community expectations

All members of the class should:

Participate and Contribute: All students are expected to participate by sharing ideas and contributing to the learning environment. This entails preparing, following instructions, and engaging respectfully and thoughtfully with others. While all students should participate, participation is not just talking, and a range of participation activities support learning. Participation might look like speaking aloud in the full class and in small groups as well as submitting questions prior to class or engaging with Discussion posts.

Expect and Respect Diversity: All classes at the University of Oregon welcome and respect diverse experiences, perspectives, and approaches. We do not want to undermine, demean, or marginalize others based on race, ethnicity, gender, sex, age, sexual orientation, religion, ability, socioeconomic status or anything else. We will value differences and communicate disagreements with respect. As the term progresses, we may establish more specific guidelines and protocols to ensure inclusion and equity for all members of our learning community.

Help Everyone Learn: Part of how we learn together is by learning from one another. To do this effectively, we need to be patient with each other, identify ways we can assist others, and be open-minded to receiving help and feedback from others. Please don't hesitate to contact me to ask for assistance or offer suggestions that might help us learn better.

AI course policy

You may use GenAI tools in this class to help with your final project only- not any of your other assignments. Helpful uses include brainstorming ideas, creating outlines, editing, and so forth. However, if you use a GenAI tool, you need to document your use, including the tool you use and when, where, and how in your work process you used it (for example: "I used ChatGPT to generate an outline for my paper, which I then revised before writing my first draft" or "I used slidesAI.io to create the slide deck style for my presentation." etc.). If you use GenAI, please submit a screenshot of your answer, so I can assess that your submission is your work and not the work solely of GenAI; failure to provide such documentation may result in a grade reduction.

Access and Accommodations

The University of Oregon and I are dedicated to fostering inclusive, equitable, and accessible learning environments for all students. The Accessible Education Center (AEC) assists students with disabilities in reducing barriers in the educational experience. You may be eligible for accommodations for a variety of disabilities – apparent disabilities, such as a mobility or physical disability, or non-apparent disabilities, such as chronic illnesses or psychological disabilities. If you have or think you have a disability and experience academic barriers, please contact the Accessible Education Center (Location: 360 Oregon Hall; 541-346-1155; uoaec@uoregon.edu) to discuss appropriate accommodations or support. The details of your disability will be

kept confidential with the AEC and you are not expected to share this information with others. However, I invite you to discuss any approved accommodations or access needs at any time with me.

The University of Oregon respects the right of all students to observe their religious holidays, and will make reasonable accommodations, upon request, for these observances. If you need to be absent from a class period this term because of a religious obligation or observance, please fill out the Student Religious Accommodation Request fillable PDF form and send it to me within the first weeks of the course so we can make arrangements in advance.

Need some additional help/resources?

Life at college can be very complicated. You may feel overwhelmed or stressed, experience anxiety or depression, struggle with relationships, or just need help navigating challenges in your life. If you're facing such challenges, you don't need to handle them on your own--there's help and support on campus.

As your instructor, if I believe you may need additional support, I will express my concerns, the reasons for them, and refer you to resources that might be helpful. It is not my intention to know the details of what might be bothering you, but simply to let you know I care and that help is available. Getting help is a courageous thing to do—for yourself and those you care about.

University Health Services helps students cope with difficult emotions and life stressors. If you need general resources on coping with stress or want to talk with another student who has been in the same place as you, visit the Duck Nest (located in the EMU on the ground floor) and get help from one of the specially trained Peer Wellness Advocates.

University Counseling Services (UCS) has a team of dedicated staff members to support you with your concerns, many of whom can provide support. All clinical services are free and confidential. Find out more at counseling.uoregon.edu or by calling 541-346-3227 (anytime UCS is closed, the After-Hours Support and Crisis Line is available by calling this same number).

Being able to meet your basic needs is foundational to your success as a student at the University of Oregon. If you are having difficulty affording food, don't have a stable, safe place to live, or are struggling to meet another need, visit the UO Basic Needs Resource page for information on how to get support. They have information on food, housing, healthcare, childcare, transportation, technology, finances (including emergency funds), and legal support. If your need is urgent, please contact the Care and Advocacy Program by calling 541-346-3216, filling out the Community Care and Support form, or by scheduling an appointment with an advocate.

You can expect to be treated with respect in this course. Both students and your instructor enter with many identities, backgrounds, and beliefs. Students of all racial identities, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, citizenship statuses, ability, and other visible and non-visible differences belong in and contribute to this class and this discipline. All

students are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

Academic Integrity

The University Student Conduct Code defines academic misconduct, which includes using unauthorized help on assignments and examinations, the use of sources without acknowledgment, and recording class without “the express written permission of the instructor(s).” Academic misconduct is prohibited at UO. I will report all suspected misconduct to the Office of Student Conduct and Community Standards. If the Office finds a student has committed misconduct, consequences can include of the relevant assignment or exam, or of the course.

While unauthorized help and use of sources without citation is prohibited, learning together and citing sources is crucial! Each assignment and assessment will have a note about whether and how you might work with others so that you can clearly act with academic integrity. If at any point in the term you are unsure about whether a behavior aligns with academic integrity in our course, please contact me. I view student questions about academic integrity as a desire to act with integrity, so I welcome your questions.

Course surveys

The midway and end-of-term Student Experience Surveys will be conducted in class during week four and week 10. These are important opportunities to provide feedback about your learning experiences. I value this feedback and am continually improving the course with students’ responses in mind. The key parts of the survey are the open-ended questions where you share concrete, actionable feedback and about the teaching practices that stand out to you. Thank you for your thoughtful reflections!

Reporting obligations

I am a designated reporter. For information about my reporting obligations as an employee, please see Employee Reporting Obligations on the Office of Investigations and Civil Rights Compliance (OICRC) website. Students experiencing sex or gender-based discrimination, harassment or violence should call the 24-7 hotline 541-346-SAFE [7244] or visit safe.uoregon.edu for help. Students experiencing all forms of prohibited discrimination or harassment may contact the Dean of Students Office at 541-346-3216 or the non-confidential Title IX Coordinator/OICRC at 541-346-3123. Additional resources are available at UO’s How to Get Support webpage.

I am also a mandatory reporter of child abuse. Please find more information at Mandatory Reporting of Child Abuse and Neglect.”

Emergencies/ inclement weather

In the event of a campus emergency that disrupts academic activities, course requirements, deadlines, and grading percentages are subject to change. Information

about changes in this course will be communicated as soon as possible by Canvas. If we are not able to meet face-to-face, students should immediately log onto Canvas and read any announcements and/or access alternative assignments. Students are also expected to continue coursework as outlined in this syllabus or other instructions on Canvas.

It is generally expected that class will meet unless the University is officially closed for inclement weather. If it becomes necessary to cancel class while the University remains open, this will be announced on Canvas and by email. Updates on inclement weather and closure are also communicated as described on the Inclement Weather webpage.

If I am unable to get to campus due to inclement weather, I will notify you via Canvas and we will meet via Zoom. I have a steep driveway and sometimes can't get to campus if the roads are too slick.