FNR 3622 / FNR 6934
FIRE ECOLOGY AND MANAGEMENT LAB
Spring, 2026

Instructors:

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Dr. Victoria Donovan
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Office hours: Wednesdays 9:00-10:00 am CT. I have an open-door policy for students. Please feel free to swing by to talk with me anytime you see me in my office. For the best chances of reaching me, contact me via email to set up an appointment during the week.

Teaching Assistant:

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Available by email and Teams session (by appointment)

Course Description
A detailed study of the ecological aspects of fire and fire management techniques including assessment of prescribed burning plans, comparison of present-day and historical fire policies and use, critical factors influencing fire behavior and effects, and wildfire control and operations.

Course Learning Objectives
After successful completion of this course, students will be able to:

1. Identify key physical and chemical properties of fire.
2. Calculate the impacts of different environmental components on fire behavior.
3. Describe fire regime components and think critically about how fire regimes can change in relation to social and ecological factors.
4. Describe fire as an ecological process and its effects on plants, animals, soil, water, and air.
5. Identify social and political forces that affect the use of fire, and how they can be incorporated into land management decisions.
6. Contrast alternative viewpoints as they relate to fire management and develop solutions based on social-ecological trade-offs.

Course Logistics

Students will access all lectures, assignments, readings and supporting materials through the course Canvas site as they become available.

Students should check canvas regularly to keep up with weekly assignments.

Course Prerequisites

FNR3622

Textbooks, Learning Materials, and Supply Fees

Required Readings: There will be no required textbook for this class. Required readings will be assigned when necessary for preparation for certain course activities like in-class case studies and lab exercises.

Suggested Readings: A number of course lectures will be tied to material in the textbook below. If students are interested in reading further about material covered in class, I suggest obtaining an online version of this textbook from the UF library.

McGrannahan DA, Wonkka CL. 2020. *The Ecology of Fire-Dependent Ecosystems*. CRC Press, Boca Raton. (Online edition available).

Supplemental Readings/Resources: If you would like to learn more about fire ecology and management to build on what is covered in this class, I would recommend reading:

Books:
DellaSala DA, Hanson CT. *The Ecological Importance of Mixed-Severity Fires: Nature's Phoenix*. Elsevier, Amsterdam. (Online edition available).

Noss, RF. 2018. *Fire Ecology of Florida and the Southeastern Coastal Plain*. University Press of Florida, Gainesville.

Pyne SJ, Andrews PL, Laven RD. 1996. *Introduction to Wildland Fire* (Second Edition). John Wiley & Sons, New York.

Pyne SJ. 2019. *Fire: A Brief History* (Second Edition). University of Washington Press, Seattle.

Websites:

USDA Fire Effects Information System: http://www.feis-crs.org/feis/

The National Wildfire Coordinating Group: https://www.nwcg.gov/

National Interagency Fire Center: https://www.nifc.gov/

Joint Fire Science Program: https://www.firescience.gov/

Wildland Fire Resources, Florida Department of Agriculture and Consumer Services: https://www.fdacs.gov/Forest-Wildfire/Wildland-Fire/Resources

Instructor Interaction Plan

Preferred method of communication: email or through canvas

Required Technology & How to Obtain the Technology

A computer or mobile device with high-speed internet connection.
Latest version of web browser. Canvas supports only the two most recent versions of any given browser.

Technical Support

UF Computing Help Desk & Ticket Number: All technical issues require a UF Helpdesk Ticket Number. The UF Helpdesk is available 24 hours a day, 7 days a week. https://helpdesk.ufl.edu/ | 352-392-4357

Weekly Course Schedule

This syllabus represents current plans and objectives for this course. As the semester progresses, changes may need to be made to accommodate timing, logistics, or to enhance learning. Such changes, communicated clearly, are not unusual and should be expected.

Date	Topics and Activities	Assigned Work	Assignment Due
Week 1 (1/15)	Course Introduction and Syllabus Review A History of Fire on Earth		
Week 2 (1/22)	Fire Behavior Part 1	-In class activity sheet	-In class activity sheet (3%/2%)
Week 3 (1/29)	Fire Behavior Part 2	- Assignment 1: Fire Behavior Modelling -In class activity sheet	-In class activity sheet (3%/2%)
Week 4 (2/5)	Fire Regimes	-In-class activity sheet	- In-class activity sheet (3%/2%)
Week 5 (2/12)	Fire and Soils, Water, and Air	-In-class activity sheet	- In-class activity sheet (3%/2%)
Week 6 (2/19)	Species Adaptions to Fire Population Ecology and Fire	- In-class activity sheet - Assignment 2: Fire Story	-Assignment 1: Fire Behavior Modelling (10%) - In-class activity sheet (3%/2%)
Week 7 (2/26)	Community Ecology and Fire Midterm Review Keep, Stop, Start	- In-class activity sheet	- In-class activity sheet (3%/2%)
Week 8 (3/5)	MIDTERM		-Midterm Exam (15%)
Week 9 (3/12)	Landscape Ecology and Fire	- In-class activity sheet	- In-class activity sheet (3%/2%)
Week 10 (3/19)	SPRING BREAK		

Week 11 (3/26)	Guest Speakers in the Profession of Fire	- In-class activity sheet	- In-class activity sheet (3%)
Week 12 (4/2)	Fire Story Presentations	- In-class activity sheet - Assignment 3 (Graduate Students only)	- In-class activity sheet (3%/2%) - Assignment 2: Fire Story Presentation (5%)
Week 13 (4/9)	Applying Prescribed Fire Pt 1	- In-class activity sheet	- In-class activity sheet (3%/2%)
Week 14 (4/16)	Applying Prescribed Fire Pt 2 Keep, Stop Start Class Evaluation	- In-class activity sheet	- In-class activity sheet (3%/2%)
Week 15 (4/23)	READING DAY		- Assignment 2: Fire Story Written (15%) -Assignment 3 (15%; Graduate Students Only)
Week 17 (4/30)	Final Exam		Final Exam (25%/20%)

Assignment Descriptions

Class Assignments: Undergraduate and Graduate students will complete 2 core class assignments. Assignment 1: Fire Behavior Modelling will be worth 10% of the student's final grade. Assignment 2: Fire Story will be composed of a written (15%) and presentation (5%) portion, totaling 20% of students' final grade. Graduate students will complete an additional assignment worth 15% of their final grade. We will review the instructions for each assignment in class the day it is assigned. Instructions will also be available on the courses Canvas Page. Assignment due dates are listed in the course schedule below. Please review the course late assignment policy.

Class Activity Sheets: Each class, students will be given an in-class activity sheet that they will complete during lecture and class activity time. In-class activity sheets will be due at the end of each class period. Activity sheets can be completed independently or in groups (unless otherwise instructed); however, every student will need to hand in their own activity sheet.

Each activity sheet is worth 3% of undergraduate students' grade and 2% of graduate students' final grade. However, only 10 of 11 activity sheets assigned will be counted towards a student's final mark in the class. The activity sheet with the lowest grade will be disregarded in the final tallying of each students' mark.

Exams: We will have two exams in this class that will serve as a midterm and final. The midterm exam will cover all topics covered leading up to the time of the midterm and contribute to 15% of the students' final grade. The final exam will cover all topics covered in the class and will contribute to 25% of undergraduate students' final grade and 20% of graduate students' final grade.

Grading Policy

Course grading is consistent with UF grading policies.

Late assignments will lose 10% for every 24 hours past the deadline unless arrangements have been made with the instructor prior to the due date for an extenuating circumstance. Computer troubles will not be considered as an excuse for late assignments unless they are accompanied by a ticket number that includes the date and time of the problem from the UF Tech Support Help Desk. You must contact the instructor as soon as possible in regard to technical difficulty that may result in a late assignment.

Course Grading Structure

Assessment Type	Undergraduate Students	Graduate Students
Class Activity Sheets	30% (3% each x 10)	20% (2% each x10)
Midterm Exam	15%	15%
Final Exam	25%	20%
Class Assignments	30%	45%

Grading Scale

Grade	Percentage
A	94-100
A-	90-93
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76
C-	70-73
D+	67-69
D	64-66
D-	60-63
E	<60

Attendance

Attendance in regular and guest lectures is mandatory in this class. For guest lectures, students will automatically lose 2% of their overall grade if they skip a guest lecture or arrive late unless they have provided an acceptable reason ahead of class to the instructor. Acceptable reasons for absence from guest lectures can include things like illness, serious family emergencies, religious holidays, and severe weather. Note that if you do not attend at least one of the two first class sessions or the laboratory session, and you have not contacted the department, you can be dropped from the class.

Academic Policies and Resources

Academic policies for this course are consistent with university policies. See https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/

Campus Health and Wellness Resources

Visit https://one.uf.edu/whole-gator/topics for resources that are designed to help you thrive physically, mentally, and emotionally at UF.

Please contact UMatterWeCare for additional and immediate support.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Privacy and Accessibility Policies

[required for online courses, list all technology used]

- Instructure (Canvas)
  - Instructure Privacy Policy
  - Instructure Accessibility
- Zoom
  - Zoom Privacy Policy
  - Zoom Accessibility

Additional information

You are expected to be honest in all academic work, consistent with the academic integrity policy as outlined in the Code of Student Conduct and any additional syllabus language. All work is to be appropriately cited when it is borrowed, directly or indirectly, from another source. Unauthorized and/or unacknowledged collaboration on any work, or the presentation of someone else's work, is plagiarism. Content generated by an Artificial Intelligence third-party service or site (AI-generated content) without proper attribution or authorization is another form of plagiarism. If you are unsure about whether something may be plagiarism or another form of academic dishonesty, please reach out to me to discuss it as soon as possible.