Instructors:

Dr. Carissa Wonkka

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Office hours: Available by phone, email, Teams session (by appointment) or, in person on Tuesdays 1:00-3:00 pm CT

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:

Sarah Kincy

Rm 4309, Building 4300

Email: kincysarah@ufl.edu

Available by email and Teams session (by appointment)

Course Description

This lab section acts as a supplement to FNR 3622 and FNR 6934, Fire Ecology and Management. Students will engage in activities that teach them about fire behavior and its role as an ecological process and management tool.

Course Learning Objectives

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

1. Describe fire as an ecological process, including its effects on plants, animals, soil, water, and air.
2. Demonstrate the ability to safely participate in the execution of prescribed fires.
3. Describe basic wildland fire behaviour and smoke management.

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
FNR3500C or PCB 3034C or PCB 4044C, or the equivalent

Textbooks, Learning Materials, and Supply Fees
Recommended: McGranahan, D. A., & Wonkka, C. L. (2020). *Ecology of fire-dependent ecosystems: wildland fire science, policy, and management*. CRC Press. Boca Raton, FL

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)	Syllabus Review		
Week 2 (1/22)	Lab Activity: Modelling fire behavior	- Lab Activity Sheet 1	
Week 3 (1/29)	Lab Activity: Matchstick forests	- Lab Activity Sheet 2	-Lab Activity Sheet 1 (6%/3%)
Week 4 (2/5)	Tentative Prescribed Fire Week		-Lab Activity Sheet 2 (6%/3%)
Week 5 (2/12)	Tentative Prescribed Fire Week		
Week 6 (2/19)	Flipped Lab		
Week 7 (2/26)	Lab Activity: Community response to fire	- Lab Activity Sheet 3	
Week 8 (3/5)	Flipped Lab		-Lab Activity Sheet 3 (6%/3%)
Week 9 (3/12)	Fire Fighter Type 2 Field Day (Tentative)		

Week 10 (3/19)	SPRING BREAK		
Week 11 (3/26)	Lab Activity: Landscape ecology	- Lab Activity Sheet 4	
Week 12 (4/2)	Flipped Lab		- Lab Activity Sheet 4 (6%/3%)
Week 13 (4/9)	Lab activity: Smoke modelling	-Lab Activity Sheet 5	
Week 14 (4/16)	Flipped Lab		- Lab Activity Sheet 5 (6%/3%)
Week 15 (4/23)	READING DAY		-Prescribed burn report (35%) - Firefighter Type 2 Certification (30%)

Assignment Descriptions

Lab Activity Sheets: During regular lab hours, we will complete lab activities that assess different aspects of fire behaviour and outcomes. Some of these assignments will include working with fire. Long hair must be pulled back and clothing must be fit snuggly (see below). Activity sheets will be due the following class. Each activity sheet will be worth 5% of the student's final grade.

Prescribed Burn Participation/Report: Students will be required to participate on at least one prescribed burn. We will conduct a burn at Jay research facility during the spring semester that students will be required to attend. If students are not able to attend the burn, they must make it up by attending a burn given by their local PBA or land management agency. Note that prescribed burns are highly weather-dependent, and so last-minute cancellations and shifting time windows aren't uncommon.

When you attend a prescribed burn, you should ideally have 6-inch or higher leather boots (no steel toes!) or leather hiking boots. You should also wear well-fitting long sleeves and pants. Note baggy clothes allow oxygen buildup underneath clothing, while floppy, dangly, or fuzzy garments can more easily catch fire. All clothing should be cotton. Do not wear clothing with screen printing. Everyone should also have leather gloves. The class has a limited number of Nomex jumpsuits, leather gloves, and helmets that students can borrow for prescribed burns. Should you need assistance obtaining outdoor attire for prescribed burns, please contact me. In addition, on a prescribed burn, always bring at least two large bottles of water and snacks.

Following the prescribed burn, students will be required to write a report that outlines the purpose of the burn, discusses the firing techniques used, fire behavior observations during the burn, notable outcomes immediately following the burn, any accidents or fire escapes, and whether there are any

residual smoke concerns. The students should also include a concluding paragraph that reflects on their personal experience.

Fire Fighter Type 2 Certification (Field/Online): Students will complete their online training for Firefighter Type 2 Qualifications (Firefighter Type 2 (Crewmember) | NWCG). Students will be expected to complete their online certifications before our scheduled Field Exercise Day at Jay Research Facility. If you do not have your online certifications completed, you cannot participate in the field day and will be responsible for finding your own before the end of the class or receive a zero on that portion of the lab. At the end of the course, students will need to submit their online course certifications demonstrating that they have successfully completed all online modules and their field certification. We will have a number of flipped lab sessions (students work outside of class) where you can complete the online training.

1. The S-190: Introduction to Wildland Fire Behavior online course (6-8 hours of training)
2. 2. The S-130: Firefighter Training online course (6-8 hours of training)
3. The L-180: Human Factors in Wildland Fire Service online course (6-8 hours of training)
4. The FEMA IS-100: Introduction to the Incident Command System online course (2-4 hours of training)
5. The IS-700: an introduction to the National Incident Management System online course (3-4 hours)

Fire Behavior Lab Report (Graduate Students Only): Students will design and implement a plan to deploy fire behavior measurement instruments prior to the prescribed burn. They will collect fire behavior data during the burn and process and analyze results in relation to a research question specific to the burn unit. The assignment culminates in a lab report that details the research question, instrumentation plan, and findings on fire behavior. The report should be between 4-5 pages typed, 12-point font, singe-spaced.

Fire Behavior Lab Report Presentation: Graduate students will be required to present the findings from the fire behavior lab report to undergraduates in a 10-15 minute presentation.

Grading Policy
Course grading is consistent with UF grading policies.

Course Grading Structure

Assessment Type	Undergraduate Students	Graduate Students
Lab Activity Sheet	30% (6% each x 5)	15% (3% each x5)
Prescribed Burn Participation and Report	35%	30%
Fire Fighter Type 2 Certification Online Certificates	25%	25%
Fire Fighter Type 2 Field Day	10%	10%
Fire Behavior Lab Report	0%	15%
Fire Behavior Lab Presentation	0%	5%

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, Late Submissions, and Make-up Requisitions

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. See the link below for further details.

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.

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.