

Instructor Dr. Victoria M Donovan
Email: victoria.donovan@ufl.edu
Office: Rm 4918, Building 4900
Office hours: 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.

Course location/time: Room 4822
Tuesday 5:00-7:00 pm

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.

Prerequisites: FOR 3153C or PCB 3034C or PCB 4044C, or the equivalent

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.

Readings:

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 addition 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 addition 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>

Course Evaluation and Performance

Class Assignments: 35% (10% each x 2; 15% x 1)

Class Activity Sheets: 30% (3% each x 10)

Exams: 35%

 Mid-term Exam (15%)

 Final Exam (20%)

Class Assignments (35%):

There will be 3 course assignments in this class. Assignments 1 and 3 will be worth 10% of students' final grade. Assignment 2 will be composed of a written (10%) and presentation (5%) portion, totaling 15% of students' 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 (30%):

Each class, students will be given a 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 the students’ grade. However, only 10 of 12 activity sheets assigned will be counted towards a student’s final mark in the class. The two activity sheets with the lowest grades will be disregarded in the final tallying of each students’ mark.

Exams (35%):

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 20% of the student’s final grade.

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| <p>Grading Scale: A (93% and above) -A (90% -92%) B+ (87% - 89%) B (83% - 86%) B- (80% - 82%) C+ (77% - 79%) C (73% - 76%) C- (70% - 72%) D+ (67% - 69%) D (63%-66%) D- (60%-62%) E (Below 60%)</p> <p>For information on current UF policies for assigning grade points, see https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/</p> |
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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 (1/10) | Course Introduction and Syllabus Review A History of Fire on Earth | | |
| Week 2 (1/17) | Fire Behavior Part 1 | -In class activity sheet | -In class activity sheet (3%) |

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| Week 3 (1/24) | Fire Behavior Part 2 | - Assignment 1: Fuels and Fire Behavior -In class activity sheet | -In class activity sheet (3%) |
| Week 4 (1/31) | Fire Regimes | -In-class activity sheet | - In-class activity sheet (3%) |
| Week 5 (2/7) | Fire and Soils, Water, and Air | -In-class activity sheet | -Assignment 1: Fuels and Fire Behavior (10%) - In-class activity sheet (3%) |
| Week 6 (2/14) | Species Adaptions to Fire Population Ecology and Fire | - In-class activity sheet - Assignment 2: Fire Story | - In-class activity sheet (3%) |
| Week 7 (2/21) | Community Ecology and Fire | - In-class activity sheet | - In-class activity sheet (3%) |
| Week8 (2/28) | Midterm Review Keep, Stop, Start Class Evaluation | | |
| Week 9 (3/7) | MIDTERM | | - Midterm Exam (15%) |
| Week 10 (3/14) | SPRING BREAK | | |
| Week 11 (3/21) | Landscape Ecology and Fire | - In-class activity sheet | - In-class activity sheet (3%) |

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| Week 12 (3/28) | Fire Story Presentations | - In-class activity sheet | - In-class activity sheet (3%) -Assignment 2: Fire Story Presentation (5%) |
| Week 13 (4/4) | History of Fire Management in the US | - In-class activity sheet | - In-class activity sheet (3%) - Assignment 2: Fire Story Written (10%) |
| Week 14 (4/11) | Applying Prescribed Fire Pt 1 | - In-class activity sheet - Assignment 3: The future of fire | - In-class activity sheet (3%) |
| Week 15 (4/18) | Applying Prescribed Fire Pt 2 | - In-class activity sheet | - In-class activity sheet (3%) |
| Week 16 (4/25) | Exam Review Keep, Stop, Start Class Evaluation | | -Assignment 3 (10%) |
| Week 17 | Final Exam | | Final Exam (20%) |

Attendance, Late Submissions, and Make-up Requisitions

Attendance in regular lectures is highly encouraged, but not mandatory in this class. The philosophy for this course is that it is the student's education, tuition, and grade – and thus the student's responsibility to make decisions about attendance. However, attendance to guest lectures is mandatory. Students will automatically lose 2% of their overall grade if they skip a guest lecture 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.

Exams cannot be rescheduled except in extenuating circumstances. Arrangements to make-up a missed exam need to be made with the instructor before the date of the exam.

Requirements for class attendance, make-up exams, and assignments consistent with university policies that can be found at:

<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

Academic Honesty Policy

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: “*We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.*” You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: “*On my honor, I have neither given nor received unauthorized aid in doing this assignment.*”

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see:

<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Communication Courtesy

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Failure to do so may result in loss of participation points and/or referral to the Dean of Students’ Office:

https://www.cise.ufl.edu/wp-content/uploads/2019/08/CISE_Netiquette_Guide.pdf

Inclusive Learning Environment

This course embraces the University of Florida’s Non-Discrimination Policy:

“The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans’ Readjustment Assistance Act.”

If you would like more information about your rights and responsibilities for inclusive learning environment, see the Office of Multicultural & Diversity Affairs website:

<http://multicultural.ufl.edu/>. If you have any questions or concerns about the inclusivity of this course's learning environment, please reach out to the instructor. I am happy to discuss your thoughts, feelings, and needs so we can make our learning environment more inclusive.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

0001 Reid Hall, 352-392-8565: <https://disability.ufl.edu/>

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,
www.counseling.ufl.edu

- Counseling Services
- Groups and Workshops
- Outreach and Consultation
- Self-Help Library
- Wellness Coaching

U Matter We Care, www.umatter.ufl.edu/

Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>.

Student Success Initiative, <http://studentsuccess.ufl.edu>

Student Complaints:

- Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.
- Online Course: <https://distance.ufl.edu/state-authorization-status/#student-complaint>

Software Use

All faculty, staff and students at 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.

Semester Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of

instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at:

<https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

UF/IFAS Field and Fork Pantry

The Pantry (<http://pantry.fieldandfork.ufl.edu>) is a resource on the University of Florida campus committed to eradicate food insecurity. Food insecurity is not having a reliable access to nutritious foods for yourself on a regular basis. If you, or anyone you know is experiencing food insecurity, the Pantry is a resource to visit. We offer non-perishable food, toiletries and fresh vegetables grown at the Field and Fork Gardens to provide a well-balanced diet. Protecting the privacy of its guests and providing food to those in need within our campus community is our priority. Our guests do not need any proof of need to use this resource, all that is needed is a Gator 1 ID to prove you are a current Student, Faculty or Staff at the University of Florida.

Help for Technical Difficulties

For issues with technical difficulties for e-learning in Canvas, please post your question to the Technical Help Discussion in your course, or contact the UF Help Desk at:

- Learning-support@ufl.edu | (352) 392-HELP - select option 2 | <http://elearning.ufl.edu>
- Library Help Desk support <https://uflib.ufl.edu/find/ask/>
- SFRC Academic Hub <https://ufl.instructure.com/courses/303721>