

FIELD OPERATIONS FOR MANAGEMENT OF ECOSYSTEMS (FNR4624C)

Fall 2024

Instructors: Dr. Victoria M Donovan
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Office: Rm 4918, Building 4900
Office hours: Mondays 8:30-9:30 am. 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.

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Course Arrangement and class hours

Recorded lectures will be made available on CANVAS during the lecture week. The lectures will be recorded by Mr. Scott Sager while teaching this course in Gainesville on Mondays and made available to the Milton section later in the week. Dr. Donovan will conduct weekly in-person discussion sessions with students and conduct four field trips with students in Milton.

- Recorded lectures available weekly, with associated Canvas quizzes/assignments.
- **Tuesday, 5-6 pm**, class discussion and QA period (Room 4822) * Note this time will likely change based on student and instructor availability. A new time will be discussed during our first class period.
- 3 Friday field trips (8 am – 5 pm)

Overview

The axe, match, cow, plow, and gun – Aldo Leopold identified these as the things that destroyed the land, but also as the tools that can be used to restore it (*Game Management*, 1933). While Leopold was focused on using these tools to restore game species specifically, the use of these tools to manage land for some combination of economic return, aesthetic/social value, and ecological services/habitat is just as valid. This course covers how these tools are used (minimal time on cows and guns) to reach some combination of these goals.

Major sections of the course include the use of heavy equipment, herbicides, and prescribed fire. Each tool and/or technique is reviewed for its application (pros and cons), regulations which govern its use, costs and contracting markets, and safety concerns. Finally, examples of the use of these tools/techniques are provided in the context of private land management (consultants), timber management, and public lands management.

This course provides broad exposure to the topic. Examples are primarily taken from the southeastern United States, but principles are more broadly applicable. Students seeking more depth can discuss their interest with the instructor, and potentially take courses such as:

- FOR3214/L *Fire Ecology and Management/Lab*
- PLS4613 *Aquatic Weed Control*
- WIS4427C *Wildlife Habitat Management*

Student Learning Objectives

By the end of this course, the student will be able to:

1. Identify and describe the tools commonly used to meet specific ecosystem management objectives and summarize their pros and cons relative to the objective; regulations governing their use; costs and contracting (including ethics); and safety issues.
2. Choose an appropriate tool/technique to reach a desired condition, given a stated current condition, and justify their choice.
3. Identify the common regulatory restrictions on operational activities, and resources available to check for new or uncommon regulations.
4. Identify the factors involved in determining prices for contracting of management activities, and discuss ways to distribute risk and avoid conflicts of interest, to produce the “best” contract form.

Pre-Requisites

This course is a senior-level course, intended for students who have already gained a solid understanding of how ecosystems function, as well as a basic understanding of “desired” conditions based on landowner objectives. As such, successful completion of the following coursework is required prior to enrollment:

- FOR3153C *Forest Ecology*, or equivalent (contact instructor to determine sufficiency)
- FNR3410C *Natural Resource Sampling*, WIS4945C *Wildlife Techniques*, FOR3162C *Silviculture* or equivalent (contact instructor to determine sufficiency)

Evaluation of Student Performance

10%	Prescribed Fire Prescription – plan for the intentional use of fire to meet a specific objective, on a specific site
10%	Timber Harvesting Prescription/Contract – plan for the removal and merchandizing of trees to meet a specific goal for a specific site, in the form of a timber sale contract
10%	Site-Prep/Regeneration Prescription – plan for the regeneration of desirable species, and control of non-desirable ones, on a specific site
20%	Quizzes – available via Canvas and based on lectures and field trips (2.5% of grade, each)
15%	Field Trip Participation- attending and engaging in field trip activities.
5%	Written Response – response to an email from a disgruntled client/stakeholder, evaluated for technical writing
30%	Final Project – for a given site and given objectives, develop a set or prescriptions (15%), and defend/justify/answer questions about those prescriptions in an oral review (15%). Includes a timber harvest plan, site-prep/regeneration plan, and prescribed burn plan.

Grading Scale (points)

		A	90.0-100		
B+	86.7-89.9	B	83.7-86.6	B-	80.0-83.6
C+	76.7-79.9	C	73.7-76.6	C-	70.0-73.6
D+	66.7-69.9	D	63.7-66.6	D-	60.0-63.6
		E	< 60.0		

Further information on UF grading policy can be found at

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Recognize that grades on canvas are not “official” and are only intended to be informative. Your final grade is the exclusive decision of the instructor.

Attendance

Attendance of the weekly discussion is mandatory unless you have been excused. To earn points for weekly exercises you must attend the lecture/field trip. Further information on UF attendance policy can be found at

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Textbook:

All required materials will be provided. Any and all materials (including materials you identify on your own) may be used in assignments, prescriptions, and the final project. A copy of the following will be provided each student:

- *Silviculture Best Management Practices*. Florida Department of Agriculture and Consumer Services, 2008.
- *Florida Forestry Wildlife Best Management Practices for State Imperiled Species*. Florida Department of Agriculture and Consumer Services, 2014.

Field Trips

In addition to providing practical familiarity with various tools, techniques, and how different landowners use them, field labs provide opportunities to interact with resource management professionals. While every effort will be made to return students to campus by 5pm on days with field labs, students should recognize that this is only an estimate, and schedule their activities accordingly. All trips require professional attire – long pants (jeans or slacks), appropriate shirt, and closed-toe shoes. Any additional required equipment will be provided. Attendance to field labs is mandatory. You

Assignments and Quizzes

Assignments and quizzes will be turned in electronically via Canvas. Without an excused absence, students will not have the option to complete quizzes after the established close date/time. No credit will be given for assignments submitted late, with the exception of pre-arranged excused absences. “Late” is defined as arriving after the prescribed date/time. All assignments are to be completed individually – reference materials may be used, but not other students.

Quizzes will be completed on canvas following your online lectures. Quizzes are worth 2.5% of your final grade. Only 8 of the 9 quizzes will count towards your final grade.

Final Project

The intent of the final project is to provide an opportunity for the student to demonstrate a cumulative knowledge of the course material, as applied to meet a specific objective on a specific site. It is also intended to provide students with experience defending their approach to the landowner or their supervisor (the instructor). The written prescription/documentation will describe, in clear terms, the proposed activities and tools/techniques to be used, including contracts, maps, timing, etc. (as necessary). This documentation will be “presented” in a one-on-one meeting with the instructor and course TAs.

Academic Honesty

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/honorcodes/honorcode.php>.

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>

FNR4624C FIELD OPERATIONS FOR MANAGEMENT OF ECOSYSTEMS
Fall 2024 Schedule

Detailed Outline

Week	Content	What is due?
27 August	ONLINE LECTURE: Course mechanics; the basics of regulations, contracting, and safety IN PERSON MEETING	Canvas Quiz 1
3 September	NO CLASS	
10 September	ONLINE LECTURE – heavy equipment and herbicides	Canvas Quiz 2
17 September	ONLINE LECTURE – prescribed fire IN PERSON MEETING	Canvas Quiz 3
24 September	ONLINE LECTURE – understory management, site preparation, competition control	Canvas Quiz 4
1 October	ONLINE LECTURE – logging equipment IN PERSON MEETING	Canvas Quiz 5 Prescribed Fire Prescription
Friday TBD	FIELD TRIP- Resource Management Services, Timber Investment Management organization (TIMO) field operations	
8 October	ONLINE LECTURE – wood products and markets	Canvas Quiz 6
15 October	ONLINE LECTURE – timber sale administration IN PERSON MEETING	Canvas Quiz 7
22 October	ONLINE LECTURE – Guest Speakers	
29 October	ONLINE LECTURE – roads and access, water, regeneration systems and genetics IN PERSON MEETING	Canvas Quiz 8 Timber Harvesting Prescription
Friday TBD	FIELD TRIP- Larson McGowan Field Operations, Final Project Field Site Review	
5 November	ONLINE LECTURE – density and spacing, planting mechanics	Canvas Quiz 9
12 November	NO CLASS	
19 November	IN PERSON MEETING- discuss final projects	Site- Prep/Regeneration Prescription
Friday TBD	FIELD TRIP- Rayonier Nursery, Water Management District	
26 November	NO CLASS	
3 December	IN-PERSON MEETING- discuss final projects	
9-11 December	Operations Plan – Written submission & individual presentations	Final Project (written- Dec 9 th , presentation- Dec 11 th)