

FNR4624C *FIELD OPERATIONS FOR MANAGEMENT OF ECOSYSTEMS*

Fall 2022

Important Information

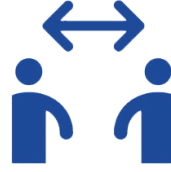
This course includes face-to-face sessions. During all face-to-face activities, the following public health and safety protocols are welcome of all students, instructors, and teaching assistants:



Face Masks are welcome.



**Wash hands (>20 sec)
before and during class.**



**Maintain responsible
physical distancing at six
feet.**



**If you feel sick or have
symptoms, stay home.**

Stay informed of current Covid-19 [policies](#). If you are experiencing [COVID-19 symptoms](#) please use the UF Health screening system and follow the instructions on [whether you should attend class](#). Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work.

Instructors: Dr. Ajay Sharma
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Mr. Scott A. Sager
130 Newins-Ziegler Hall, UF Gainesville Campus
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Teaching Assistants

Ashton Shell/ Justin McKethein
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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 Milton section after a day or two. Dr. Sharma will coordinate the lecture delivery and overall conduct of the course at Milton, and also conduct weekly in-person discussion sessions on Thursdays. Dr. Sharma will also conduct four field trips.

- Recorded lectures available weekly, with associated Canvas quizzes/assignments
- Thursday, **5-6pm central**, in-person class discussion (**Room 4822**)
- 4 fieldtrips.

Technology Requirements:

- A computer or mobile device with high-speed internet connection.
- A webcam, headset and/or microphone, and speakers.
- Latest version of web browser. Canvas supports only the two most recent versions of any given browser. [What browser am I using?](#)
- Installation of proctoring software may be required and will be provided if so.

Synchronous online sessions may be recorded. By sharing your video, screen, or audio during any synchronous online class sessions, you are consenting to being recorded for the benefit of students who cannot attend live as well as for class review during the current semester. If you have special circumstances or concerns about privacy, it is your responsibility to discuss it with your instructor.

Office hours: Mondays, 10 am – 12 pm, or by appointment

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*
- FAS4305C *Intro to Fishery Science*

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 – plan for the removal and merchandizing of trees to meet a |

- specific goal for a specific site
- 10% Site-Prep/Regeneration Prescription – plan for the regeneration of desirable species, and control of non-desirable ones, on a specific site
- 40% Weekly Assignments/Exercises (minimum of eight) – available and submitted via Canvas, and based on lectures and field exercise (5% of grade, each)
- 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%). Typically 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 in-person discussion lecture on Thursdays is mandatory, unless excused. To earn points for weekly assignments 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 labs: In addition to providing practical familiarity with various tools, techniques, and how different landowners use them, field labs and trips provide opportunities to interact with resource management professionals and land management in action. All trips require professional attire – long pants (jeans or slacks; not leggings), appropriate shirt, and closed-toe shoes. Any additional required equipment will be provided.

Assignment and late work policy: Assignments and quizzes are turned in electronically via Canvas. Refer to the Canvas assignments tab for due dates and times. Without an excused absence, students will not have the option to complete a quiz after the established close date/time. Late assignments will not be accepted and receive zero credit, except the excused absence.

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 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.

Communication Courtesy and Professionalism

Just as in any professional environment, meaningful and constructive dialogue is expected in this class and requires a degree of mutual respect, willingness to listen, and tolerance of opposing points of view. Respect

for individual differences and alternative viewpoints will be maintained in this class at all times. All members of the class are expected to follow rules of common courtesy, decency, and civility in all interactions. Failure to do so will not be tolerated and may result in loss of participation points and/or referral to the Dean of Students' Office.

Semester Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning.

At approximately the mid-point of the semester, the School of Forest, Fisheries, & Geomatics Sciences will request anonymous feedback on student satisfaction on various aspects of this course. These surveys will be sent out through Canvas and are not required but encouraged. This is not the UF Faculty Evaluation!

At the end of the semester, 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/>.

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: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.

Software Use

All faculty, staff and students of the University of Florida 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.

Inclusive Learning Environment

This course embraces the University of Florida's Non-Discrimination Policy, which reads, *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 have questions or concerns about your rights and responsibilities for inclusive learning environment, please see the instructor or refer to the Office of Multicultural & Diversity Affairs website: <http://multicultural.ufl.edu>.

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/>

Student Life, Wellness, And Counseling Help

Students experiencing crises or personal problems that interfere with their general wellbeing 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, <https://counseling.ufl.edu/>
 - Counseling Services
 - Groups and Workshops
 - Outreach and Consultation
 - Self-Help Library
 - Wellness Coaching
- U Matter We Care, <https://umatter.ufl.edu/>
- Career Resource Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints Campus

On-Line Students Complaints

Student Complaint Process

The School of Forest, Fisheries, & Geomatics Sciences cares about your experience and we will make every effort to address course concerns. We request that our online students complete a course satisfaction survey each semester, which is a time for you to voice your thoughts on how your course is being delivered. You can also [submit feedback anytime](#).

If you have a more urgent concern, your first point of contact should be the Academic Coordinator or the Graduate/Undergraduate Coordinator for the program offering the course. You may also submit a complaint directly to UF administration:

- <https://distance.ufl.edu/getting-help/>
- <https://registrar.ufl.edu/complaint.html>

FNR4624C FIELD OPERATIONS FOR MANAGEMENT OF ECOSYSTEMS
Fall 2021 Schedule

In-person, weekly discussion sessions are held Thursdays at 5-6 PM Central Time. Recorded lectures will be made available earlier in the week. Off-campus labs will be held on Fridays (tentative schedules in **bold** below; one additional “optional” field trip). This course plan and syllabus are subject to change in response to student and instructor needs. Any changes will be clearly communicated in advance through Canvas.

Week of	Content
29 August	LECTURE – course mechanics; the basics of regulations, contracting, and safety
5 September	NO CLASS
12 September	LECTURE – heavy equipment and herbicides
19 September	LECTURE – prescribed fire
26 September	LECTURE – understory management, site preparation, competition control
3 October	LECTURE – logging equipment
7 October (Friday)	<i>FIELD TRIP – Resource Management Services, Timber Investment Management Organization (TIMO) field operations</i>
10 October	LECTURE – wood products and markets
17 October	LECTURE – timber sale administration
24 October	LECTURE – roads and access
28 October (Friday)	FIELD TRIP – Larson McGowan Field operations
31 October	LECTURE – guest speakers... professional practice, ethics, work experiences
31 October (during the week)	FIELD TRIP – Final Project Sites
7 November	LECTURE – regeneration systems, genetics, density and spacing
14 November	LECTURE – planting mechanics
18 November (Friday)	FIELD TRIP – Rayonier Tree Nursery, Elberta, AL
21 November	<i>FIELD TRIP – Southern Forestry Consultants, Quincy... OVERNIGHT (OPTIONAL) Work on your Final Project</i>
28 November	Miscellaneous topics/Guest lecture, Course Review.
5 December	READING DAY (Thursday, 8 December)
12-16 December	Operations Plan – individual presentations