FOR 4934

Florida's Forest Communities

Fall 2023





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Class Schedule & Location: CANVAS Online (Asynchronous Delivery)

Office Hours: Email for appointment

FOR 4934 (2 Credits) - Florida's Forest Communities

Course Description

In this course, you will learn to recognize some Florida forest communities and the dominant trees and common plants that grow in them. Using basic principles of plant taxonomy and tree identification skills, students will recognize common forest trees in Florida using visual physical plant characteristics coupled with habitat cues and tree species groupings.

Course Essential Questions

- Why do trees grow where they do?
- How do forest communities form and how are they distributed across the landscape?
- Why is tree identification important?

Course Objectives

Upon completing the course, students will:

- Identify major forest communities in Florida.
- Be able to explain how disturbances, hydrology, soils, geology, and climate influence plant distributions in Florida.
- Be able to relate tree species groups to forest communities and ecological setting.
- Become adept at identifying plants (woody & herbaceous) commonly found in Florida.
- Demonstrate the proper use of tree identification resources.
- Articulate information about plant species learned, such as historic use or wildlife value.

Cornerstone Tasks

- **Forest Community Attributes**: Use geographic context, species composition and ecological characteristics to recognize Florida's forested communities.
- **Tree ID:** Use basic morphologic characteristics to correctly identify major tree species common in Florida by examining living specimens in the landscape and samples or photographs of flowers, twigs, leaves, and fruits. This task will be assessed through quizzes.

Teaching Methods

- **Lectures:** Lectures (online) will focus on presenting new information
- **Zoom Meetings (optional):** Periodically during the semesters, we will host a Zoom meeting for students to participate in live discussion about the course. Participation is not required, but we want to make sure you have an opportunity to clear up any questions you might have, the meetings will be open for up to one hour but may end early if all issues have been addressed. We will record and post the session if you are unable to participate but wish to view it later.
- **Readings:** Various articles and videos will be posted online. It is to your advantage to read these articles as they will often reinforce information given in lecture or aid in field study.
- **Field studies:** Success in tree identification is dependent on memorization and repeated detailed observation of trees. Although this is intended to be an online class you will have to step outside to practice identification. Trees to be learned will be viewed in a variety of settings and life stages. Field tours (virtual) will focus on acquiring the observational and memory skills needed to identify a tree, from both near and far.

Grading

| Quizzes: | 50% |
|---------------------------|------|
| Digital Tree Collection: | 25% |
| 360 Spot Community Videos | 25% |
| Total: | 100% |

Module Quizzes: Timed on-line quizzes will be given at the end of most class periods and will cover material presented in that module only. Quizzes will be open book, but time limited. You will be given up two attempts on the quiz but be aware, the questions will vary each time you take the quiz. It will be your best attempt that counts as your grade.

Digital Tree Collection: Create a digital tree collection of species from 3 forest communities from the class list by use of personal photography. Detailed instructions and a grading rubric will be provided in the on-line assignment.

Digital Tree Collection: You will develop a digital plant collection focusing on three forest communities and containing five unique plants from each community (total of 15 species). Detailed instructions and a grading rubric will be given in the assignment on creating and presenting your collection. Develop your collection over the course of the semester and use it as a study guide; turn it in on-line.

360° Community videos: For three forest communities (can be the same or different from the plant collection communities), complete a 360-degree spot video (not to exceed 3-7 minutes each) detailing various attributes and species associated with that community. Detailed instructions and a grading rubric will be provided in the on-line assignment.

Final grading follows University standards and is based on the following scale (no rounding up or down):

| 100-93% | = A | 77-73% | = C | |
|---------|------|--------|------|-----|
| 90-92% | = A- | 72-70% | = C- | |
| 89-88% | = B+ | 69-68% | = D+ | |
| 87-83% | = B | 67-63% | = D | |
| 82-80% | = B- | 62-60% | = D- | |
| 79-78% | = C+ | < 59% | | = E |

Recommended Texts:

Nelson G. 2011. <u>The Trees of Florida</u>. Pineapple Press Inc. Sarasota, FL. 428 p. **(ToF)** Whitney, E., D.B. Means, A. Rudloe. 2004. <u>Priceless Florida</u>: <u>Natural Ecosystems and Native Species</u>. Pineapple Press, Inc. Sarasota, FL. 423 p. **(PF)**

Burns, R.M. and B.H. Honkala. 1990. <u>Silvics of North America</u>, Volumes 1 (conifers) and 2 (hardwoods). U.S.D.A. For. Ser. Agr. Handbook No. 654. Washington, D.C.

675 & 877 p. [Free online] http://www.na.fs.fed.us/spfo/pubs/silvics manual/table of contents.htm (SoNA)

| | FOR 4934: Florida Forest Communities: 2023 Fall Class Schedule | | | | | | | |
|----|--|---|------|----------|-------------------|---|--|--|
| , | Week | Topics | Quiz | Due Date | Meeting (Zoom) | Project Due Dates | | |
| 1 | Aug. 23 | Course Introduction. Introduction to Forest Communities of Florida | - | - | - | - | | |
| 2 | Aug. 28 | Florida Climate & Weather, Geology of Florida, Florida Soils Quiz Required | Q1R | Sept. 6 | Aug. 28 Noon | - | | |
| 3 | Sept. 4 | Ecology: The Concept of Disturbances, Forest Structure and Function | Q2R | Sept. 13 | - | - | | |
| 4 | Sept. 11 | Tree identification Part 1 | - | - | - | - | | |
| 5 | Sept. 18 | Tree identification basics Part II | Q3R | Sept. 27 | - | - | | |
| 6 | Sept. 25 | Forest Community #1 Coastal/Maritime | Q4R | Oct. 4 | - | - | | |
| 7 | Oct. 2 | Forest Community #2 Cypress Dome | Q5R | Oct. 11 | - | - | | |
| 8 | Oct. 9 | Forest Community #3 Alluvial Floodplain | Q6R | Oct. 18 | Oct. 11 6PM | - | | |
| 9 | Oct. 16 | Forest Community #4 Bottomland Hardwood | Q7R | Oct. 25 | - | Oct. 19: 1 st Tree Collection | | |
| 10 | Oct. 23 | Forest Community #5 Flatwoods | Q8R | Nov. 1 | - | Oct 26: 2 nd Tree Collection | | |
| 11 | Oct. 30 | Forest Community #6 Sandhill & Scrub | Q9R | Nov. 8 | - | - | | |
| 12 | Nov. 6 | Florida Community #7 Upland Hardwood | Q10R | Nov. 15 | - | Nov. 9: 3 rd Tree Collection | | |
| 13 | Nov. 13 | Optional Ecosystem Field Tour Nov. 17 (Time: TBD) | - | - | - | Nov. 16: 1 st 360 Video | | |
| 14 | Nov. 20 | Thanksgiving Break | - | - | - | - | | |
| 15 | Nov. 27 | Forest Community #8 Pick One: Invasive Species or S. FL Urban/Palms | Q110 | Dec. 6 | Nov. 27 Noon | Nov. 30: 2 nd 360 Video | | |
| 16 | Dec. 4 | Project showcase | - | - | - | Dec. 11: 3 rd 360 Video | | |

Generally, no make-up quizzes or make-up final exam will be offered other than for exceptional situations such as University-sanctioned absence, death of an immediate family member (pets not included), serious illness or injury (reported to the instructor with a physician's note within five days of the first absence), or extreme weather resulting in the closure of campus.

Other Tree Identification Resources:

Beentje, H.J. 2010. <u>The Kew Plant Glossary: An Illustrated Dictionary of Plant of Identification Terms</u>. Royal Botanical Gardens, Kew UK. 220 p.

Castner, James L. 2005. <u>Photographic Atlas of Botany and Guide to Plant Identification</u>. Feline Press. 310 p.

Godfrey, R. K. 1988. <u>Trees, Shrubs and Woody Vines of Northern Florida and Adjacent Georgia and Alabama</u>. The University of Georgia Press, Athens. 734 p.

Harris, J.G. and Harris, M. W. 2000. <u>Plant Identification Terminology: An Illustrated Glossary Spring Lake Publishing</u>, Spring Lake UT. 206 p.

Kirkman, L.K., C.L. Brown & D.J. Leopold. 2007. <u>Native trees of the Southeast: An identification guide</u>. Timber Press, Portland, OR. 370 p.

Knight, G.R., J.B. Oetting, and L. Cross. 2011. <u>Atlas of Florida's Natural Heritage - Biodiversity, Landscapes, Stewardship and Opportunities</u>. Tallahassee, FL Florida State University.

Langeland, K. A. and Burks K. C. 1998. <u>Identification & Biology of Non-native Plants in Florida's Natural Areas</u>. University of Florida IFAS. Gainesville. 165 p.

Lakela, O. and Wunderlin, R. P. 1980. <u>Trees of Central Florida</u>. Banyan Books, Miami. 208 p.

Miller H. J. and Miller K. V. 1999. <u>Forest Plants of the Southeast and Their Wildlife Uses</u>. University of Georgia Press. 454 p.

Riffle, R. L. and Craft, P. 2003. <u>An Encyclopedia of Cultivated Palms</u>. Timber Press. 528 p.

Tomlinson, P.B. 1980. <u>The Biology of Trees Native to Tropical Florida</u>. Harvard University Printing, Allston MA. 480 p.

Wunderlin, R. P. and Hansen, B. F. 2003. <u>Guide to the Vascular Plants of Florida</u>, 2nd Ed. University Press of Florida, Gainesville. 787 p.

Ecosystem, Tree & Plant Online Resources:

Ecosystems of Florida:

<u>Species Navigation - Florida Natural Areas Inventory (fnai.org)</u> - Ecosystem Descriptions

http://www.landscope.org/florida/ecosystems/ecosystems 101/ - Ecosystems 101 http://www.landscope.org/florida/natural_geography/ - Florida Geography Summary

Plant databases:

<u>http://plants.usda.gov/</u> - list of plants and characteristics

http://www.sfrc.ufl.edu/Extension/ffws/tof.htm - Trees of Florida

http://www.florida.plantatlas.usf.edu/ - Florida plant atlas (USF)

http://www.flmnh.ufl.edu/herbarium/cat/ - UF herbarium

Invasive plants:

http://www.fleppc.org/ - Florida Exotic Pest Plant Council http://www.invasiveplantatlas.org/trees.html - Invasive Plant Atlas

Apps:

<u>Inaturalist</u>

Pl@ntNet - Plant ID

IveGot1 - Invasive Plants & Animals

Things you will need for this class: N/A

The following is important information you need to know when working outdoors:

- Chiggers: http://edis.ifas.ufl.edu/pdffiles/IG/IG08500.pdf
- Ticks & Lyme Disease: http://edis.ifas.ufl.edu/pdffiles/MG/MG20400.pdf
- West Nile Virus: https://www.cdc.gov/westnile/index.html
- Dengue Fever: https://www.cdc.gov/dengue/index.html
- Heat: https://www.cdc.gov/niosh/topics/heatstress/default.html
- Dehydration: https://www.webmd.com/a-to-z-guides/dehydration-adults#1

The Legal Stuff

Online Course Evaluation Process

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 (the instructors take this very seriously)

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students 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." The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Click here to read the Conduct Code. If you have any questions or concerns, please consult with the instructor or TAs in this class.

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.

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/cwc/

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

Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/

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, www.dso.ufl.edu/drc/

Concerns that cannot be resolved by communicating with the instructor can be directed to: https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code /.