

# Urban Forestry      FOR 4090C-2D17 / FOR6934-1845      Spring 2022

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**Office Hours:** email for appointment

**Preferred method of contact:** Canvas  
“Inbox” mail, response typically next  
business day, rarely evenings or weekends

**Class Schedule:** Tue & Thur. 12:50pm – 2:45pm (Periods 6-7)  
**Class Location:** [NZ222](#)



SCHOOL OF FOREST,  
FISHERIES, AND  
GEOMATICS SCIENCES

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**“Someone is sitting in the shade today because someone planted a tree a long time ago.”**  
(Warren Buffett)

## Course Description

Urban forestry is the art and science of managing the biotic components in cities for the health and well-being of people. As people move to urban centers, they become increasingly disconnected from the natural and agricultural systems known to their ancestors. Students will learn how concepts of forestry, natural resource management, sustainability, urban planning, and landscape design blend in managing biotic and abiotic components of urban forest ecosystems to produce a safe and healthy environment for city dwellers.

## Course Essential Questions

- What are the effects of urbanization on natural ecosystems?
- How is urban forest management the same and different compared to management of rural, agricultural, or more natural forest systems?
- What aspects of the urban forest can be managed to improve the quality of life for the people living within it?

## Course Objectives

Upon completing the course, students will be able to:

- Describe the role of urban forest management and the scientific aspects of an urban forest ecosystem;
- Measure and analyze urban forest structure, function, ecosystem services, and values;
- Assess the biophysical and socioeconomic aspects of urban and natural resource management;
- Apply problem-solving skills to management issues involving urban and urbanizing forests.

## Cornerstone Tasks

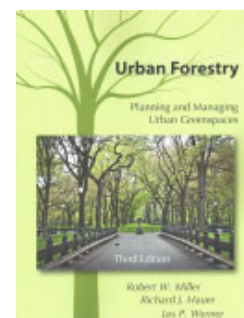
- **Lab Reports:** Written reports will describe lab activities and synthesis of collected data. Assessment will be based on a grading rubric for the reports.
- **Urban Forest Assessment Report:** Student groups will collaboratively plan, develop, and present an urban forest assessment report for a portion of the UF Campus using the i-Tree ECO model results. Assessment will be based on a grading rubric.
- **Graduate Student Project:** Graduate students will complete a personal project, due at the end of the semester, in line with their academic and professional interests but related to urban forestry. This project can be in the form of a poster, a written research review, a physical research project with accompanying manuscript, or some other project. Graduate students should meet with Dr. Fox prior to the start of classes or early in the semester to discuss their personal interests and project ideas.

## Teaching Methods

- **Lectures:** Narrated PowerPoint lectures will focus on presenting new information as well as that summarized from the assigned readings.
- **Assigned Readings:** Each week various articles and videos will be posted on-line prior to lecture. It is to your advantage to read these articles as they will often reinforce information given in lecture, aid in field study, or contain information appearing on exams.
- **Labs:** Lab periods may happen in the classroom, on campus, or at a nearby location. Lab exercises are designed to provide students with hands-on experience with field methods, to reinforce lecture material, and to hear from experts during guest lecture periods. Typically, a written lab report will be prepared based on the subject matter and instructions from the instructor.
- **Exam:** Three exams will be given covering lecture material, assigned readings/videos, and lab subjects.
- **Group Study:** Students will work in assigned groups to complete lab data collection, analysis, and certain reports. Students are encouraged to form small *ad hoc* study groups outside of class to reinforce concepts and to informally quiz each other on the course material presented.
- **Individual Study:** Each student will be expected to attend class and labs; detailed note-taking is encouraged. In addition, students should complete assigned readings, produce required lab reports, and spend individual time reviewing materials in advance of exams.

## Required Text

Miller, Robert. Urban Forestry: Planning and Managing Urban Green Spaces, Third Edition. 2015. Waveland Press, Inc. Long Grove, IL  
ISBN: 978-1-4786-0637-6



## Grading

<i>Exams (3):</i>	50%
<i>Lab Reports/Discussions:</i>	25%
<i>Group Project:</i>	25%
<i>Total:</i>	100%

**Exams:** Timed comprehensive exams will be given at intervals during the semester. Exams may be completed on paper or through the eLearning site Canvas. Students may use their personal notes, the course text, and provided readings to complete these exam questions.

**Lab Reports:** Lab reports are associated with a field activity or assignment and will be due before the beginning of the next class session (11:59am or just before noon). **Reports turned in late will receive half credit and those turned in after midnight of the due date will receive no credit.** A student must attend lab to get credit for that week's report unless excused. Unless otherwise specified by the instructor, all lab reports will be produced using 12pt Times New Roman font, single spaced, with one inch margins all around. Reports will be graded on content (accuracy and completeness of the assignment), presentation (quality of writing, grammar, spelling), and incorporation of material from assigned readings.

**Group Project:** Student groups will collect field data and collaboratively plan, develop, and present an urban forest assessment report for a portion of the UF Campus using the i-Tree ECO model results.

**Final grading** follows University standards and is based on the following scale (<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>):

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Course Score	93.0 - 100	90.0 - <93.0	87.0 - <90.0	83.0 - <87.0	80.0 - <83.0	77.0 - <80.0	73.0 - <77.0	70.0 - <73.0	67.0 - <70.0	63.0 - <67.0	60.0 - <63.0	0 - <60.0
Grade Points	4	3.67	3.33	3	2.67	2.33	2	1.67	1.33	1	0.67	0

## General Course Prerequisites

This course is designed for third- or fourth-year FRC or NRC major undergraduate or any graduate students who have completed courses in dendrology/plant ID, forest ecology, and natural resource sampling/mensuration. Having completed silviculture is not required but recommended. Students should know how to navigate and use the tools in the eLearning site Canvas, which will be used to deliver portions of the course content.

## Attendance and Make-Up Work

While class attendance is not part of your grade, the condensed nature of subjects in this course will require you to be focused, attentive, and taking notes during every lecture or lab if you wish to be successful. Do not arrive late to class (let the instructor know early in the semester about any logistical issues that might result in habitual tardiness).

Due to the nature of most labs, in that data are collected for further workup or an experience is shared that requires analysis or comment, **attendance in lab is mandatory and lab reports may only be turned in if you attend the labs.** However, if there is a special circumstance covered by the UF attendance policy (<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>), please contact the instructor ahead of time. There is no designated lab period so a lab may occur on either class day.

**It is your responsibility to keep track of assignment due dates and times as listed in Canvas. Most assignment due times will be 11:59am or just before noon.** Assignments open and close based on the clock governing the Canvas server so submitting assignments at the last minute may prove troublesome for you – don't wait! A grace period, usually 12 hours, will be added to each assignment due date during which late work will be accepted. Any late assignment scores will be reduced by 50% of the original point value and then be graded according to the rubric. No assignments will be accepted after the assignment closes so do not email them to an instructor.

**Generally, no make-up exams 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 beforehand and followed by a physician's note within five days of the first absence), or extreme weather resulting in the closure of campus. Extra credit assignments are rarely, if ever, provided.**

## Things you will need for this class:

- 1) A computer with office software for written reports and reliable internet access to the class eLearning site in Canvas. An alternative is accessing UF APPS <http://apps.ufl.edu> and using office software available there.
- 2) A way to take class and field notes (clipboard or hard binder for field notes).
- 3) For field labs, sunscreen, long sleeves, and a hat will help prevent sunburn.
- 4) A water bottle for field labs (a water cooler will be available for refills).
- 5) Appropriate outdoor clothing and footwear for field labs. You may get muddy, wet, and sweaty depending on the lab site. Field labs happen rain or shine (nearby lightning or hail might send us scurrying to the vans).

This course includes outdoor lab activities. If you are allergic to insect bites, or if you have other medical conditions for which emergency treatment may be required, **it is your responsibility to inform the instructor *before the course starts*, about:** (1) your specific condition, (2) where

you keep your medicine, and (3) how to administer emergency treatment should the situation arise.

The following is important information concerning certain hazards of working outside in Florida:

- Heat: [http://solutionsforyourlife.ufl.edu/hot\\_topics/agriculture/heat\\_stress.html](http://solutionsforyourlife.ufl.edu/hot_topics/agriculture/heat_stress.html)
- Dehydration: <http://fineinstitute.com/patient-education/?id=11913&lang=English&db=hlt&ebSCOType=static&widgetTitle=Spinal+Links>
- Chiggers: <http://edis.ifas.ufl.edu/pdffiles/IG/IG08500.pdf> or <http://pherec.org/EntGuides/EntGuide6.pdf>
- Ticks & Lyme Disease: <http://edis.ifas.ufl.edu/pdffiles/MG/MG20400.pdf> or <http://fme1.ifas.ufl.edu/buzz/clticks.shtml>

## Class and Discussion Decorum

All course participants are expected to interact with dignity and professionalism in the classroom, in the field, or in an on-line discussion. Be professional. You are preparing for a career and should be learning to interact with your fellow classmates as you would in your future professional life. Written communication should follow standard rules for grammar and spelling and be clear, concise and intelligent.

Be respectful and open to opinions and ideas that differ from yours. The exchange of diverse thoughts, ideas and opinions are an important part of the scholarly environment. When responding to statements or posts made by others, address the ideas, not the person. Disagreement with the ideas of others is perfectly acceptable; *how* one disagrees should not be hurtful or offensive. Insulting remarks and name-calling are never appropriate.

## Academic Honesty

In 1995 the UF student body enacted a new honor code and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by students. The quality of a University of Florida education is dependent upon community acceptance and enforcement of the honor code.

***The Honor Code: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.***

On all work submitted for credit by students at the university, 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 all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor. This policy will be vigorously upheld at all times in this course.**

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>.

## Canvas Technology Requirements

Computers, Internet, and Web browsers: Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser. It is recommended to use a computer less than five years old with at least 1GB of RAM. It is recommended to have a minimum Internet speed of 512kbps. It is strongly recommended to not use a wireless connection, phone, tablet, or notepad for critical course tasks such as exams and discussions.

Canvas currently supports the following browsers: Chrome, Safari, Firefox, Edge. For more information on approved computers and browsers please visit:

<https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66> On this web page there is an area titled “Is My Browser up to Date?” Use it to check each computer and browser you may use in this course. There is another important area on “Browser Privacy Settings.” Read the section(s) for any browser intended for use. For example, Note that: In browsers such as Safari, insecure content will never be displayed in the browser. Return to the page to check for updates on technology issues in Canvas.

**If you encounter technical difficulties in this course, contact the UF Computing Help Desk right away to troubleshoot. <https://helpdesk.ufl.edu/> or (352) 392-HELP. If the problem cannot be fixed immediately, notify your instructor, and provide them with the Help Desk ticket number.**

## UF Policy on In-Class Recording

**Students are allowed to record video or audio of class lectures** (a “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation).

However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) **for personal educational use**, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Students may not publish recorded lectures without the written consent of the instructor.

**Publication without the written permission of the instructor is prohibited.** To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

## Academic Resources

SFFGS Academic Hub (Canvas): <https://ufl.instructure.com/courses/303721>

UF Writing Studio: <https://writing.ufl.edu/writing-studio/>

## 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.

## Course Evaluation

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/>.

## 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/](http://www.counseling.ufl.edu/cwc/)

Counseling Services

Groups and Workshops

Outreach and Consultation

Self-Help Library

Training Programs

Community Provider Database

### Office of Victim Services

1515 Museum Road, (352) 392-5648, <https://police.ufl.edu/about/divisions/office-of-victim-services/>

### Career Resource Center

First Floor JWRU, (352) 392-1601, [www.crc.ufl.edu/](http://www.crc.ufl.edu/)

### Students with Disabilities

0001 Reid Hall, (352) 392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)

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. **If you have registered with the Disability Resource Center and require academic accommodations, it is your responsibility to privately inform the instructor of your needs as soon as possible before the first class session.**

### UF attendance policy

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

**Please contact the instructor ahead of time or as soon after an absence to be considered excused.**

### The UF Religious Holidays Policy is available at:

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

At the University of Florida, students and faculty work together to allow students the opportunity to observe the holy days of their faith. A student should inform the faculty member of the religious observances of their faith that will conflict with class attendance, with tests or examinations, or with other class activities **prior to the class or occurrence of that test or activity.**

<b>FOR 4090C–2D17 / FOR6934-1845 : Urban Forestry : 2022 Spring Class Schedule</b>		
Assigned readings/videos and written assignments are posted on-line (Sequence and topics subject to change)		
<b>Week</b>	<b>Tuesday : NZ 222</b>	<b>Thursday : NZ 222</b>
1	Jan 6	Course Introduction
2	Jan 11 / 13	Introduction to Urban Forestry / Tree Biology Campus walk (lab)
3	Jan 18 / 20	<b>Urban Forest Structure, Function and Ecosystem Services</b>
		Measuring urban forest structure & benefits (lab) iTree Design
4	Jan 25 / 27	Urban forest inventories Introduction to group project
		ECO / I-Tree model Data Collection Training (lab)
5	Feb 1 / 3	Measuring & assessing urban canopy cover iTree Canopy (online lab)
		<b>Exam 1 : Bring laptop to class</b>
6	Feb 8 / 10	i-Tree ECO data collection training Urban watersheds
		Urban soils / Urban Site Index (lab)
7	Feb 15 / 17	Group project workshop (data collection)
		Group project workshop (data collection)
8	Feb 22 / 24	<b>Trees and Land Development Landscaping / tree protection ordinances</b>
		<b>Urban Management Planning</b>
9	Mar 1 / 3	Gainesville Land Development Ordinance Land Development field trip
		<b>Exam 2 : Bring laptop to class</b>
10	Mar 8 / 10	S P R I N G
		B R E A K
11	Mar 15 / 17	Tree selection / Urban Greening i-Tree results and analysis
		Arboriculture / Plant Health Care
12	Mar 22 / 24	Tree Risk and Hazard Assessment (Klein)
		Economic Valuation of the Urban Forest Tree appraisal (Hoyer)
13	Mar 29 / Mar 31	Urban green spaces & Wildlife (Hostettler) Sustainable subdivision field trip
		Ecology of Urban Stormwater Management Lecture & Field Trip (Iannone)
14	Apr 5 / 7	<b>Disturbance in the urban forest / Hurricanes</b>
		<b>Group project presentations</b>
15	Apr 12 / 14	<b>Voices from the Urban Forest</b>
		<b>Course Review</b>
16	Apr 19	<b>Exam 3 : Bring laptop to class</b>
Enjoy your Summer Break!		

Meeting  
Format:

Face-to-Face Session

**Live Zoom or Recorded**