

Arboriculture Spring 2022

ORH 4242, 4 credits

Building: MAEB

Room: 0238

Tuesday: 10:40 to 11:30 and Thursday: 10:40 to 12:35

Office hours: By appointment only

Instructor: Ryan Klein, Ph.D. Candidate, Environmental Horticulture Department

Email: ryanwklein@ufl.edu

Phone: (352) 284-1861

Course Communications:

1. Messaging via Canvas – This should be used as your primary source of contact with the instructor outside of class time (used to report problems accessing materials, other non-arboriculture computer issues, and to schedule appointments)
2. Discussion board – This is used for completing any missed weekly in-class discussions due to a students' absence. Discussion questions will be posted on Canvas following each class. If a student misses' class, they are responsible for submitting a response to that week's discussion question by Sunday 11:59 pm.

Required Text: Arborists' Certification Study Guide, Third Edition - Sharon Lilly

Course Description: Arboriculture is the care of trees in developed landscapes. Arboricultural principles of tree structure, tree biology, and soil attributes are presented with consideration of techniques and treatments designed to evaluate and improve health and mechanical stability. Lectures, videos, and weekly assignments are augmented by many applied indoor and outdoor exercises that students conduct under the direction of the instructor. Several times throughout the semester, students will be exposed to industry professionals from various backgrounds as a means of providing real-world experiences and a better understanding as to the opportunities available post-graduation. Scheduled assignments and regular interaction among students and instructor ensure that all remain engaged in the topics presented in 12 modules.

Prerequisite Knowledge and Skills: Basic understanding of biological principles including introductory Dendrology, Botany, or equivalent is helpful but not necessary.

Course Goals and Objectives:

By the end of this course students will be able to:

- Evaluate tree structure and stability
- Interpret internal tree conditions from visual signs
- Articulate causes of wood decay in trees
- Grow trees with high quality roots and crown in a nursery
- Decipher the components of tree anchorage
- Evaluate and design sites to support trees
- Compose tree planting and establishment specifications

- Know proper tree planting techniques
- Prescribe pruning treatments on roots, stems, and branches
- Diagnose structural and health issues
- Outline a tree risk assessment protocol

Instructional Methods: Course materials are presented to students in a wide variety of formats because there are many styles of learning. Information presented in these formats' overlaps. Some students will learn best by attending lectures and completing the weekly field assignments, some will gain more by spending considerable time with the Landscape Plants website, while others may find the text to be the most engaging method of learning. The required text presents many of the concepts in a complete, well-organized package together with self-assessment tools. This is augmented with videos, supplemental readings, and guest lectures from industry professionals.

The outdoor exercises and techniques presented by the instructor and others will demonstrate the practicality of concepts. As a method of demonstrating your proficiency in arboriculture, students will devote considerable time to finding trees and applying treatments outdoors in the real world. The four to six required field labs (one-hour sessions) in Gainesville will introduce students to industry professionals and allow students to demonstrate their comprehension of the course material. Key evaluation strategies and treatments will be demonstrated to students during these important sessions. There is no formal paper required for this course; however, there are many short writing assignments.

How to Excel in this Course:

1. Prior to attempting assignments: read the text and web site, absorb the PowerPoint lectures, view the videos, and then tackle assignments. Your success will be maximized using this approach! Do not attempt to complete assignments without preparing in this manner because you will be unfamiliar with the appropriate vocabulary. If you do not use appropriate vocabulary, concepts, and approaches, your grade will reflect this shortcoming. **Note:** To accommodate different learning styles, you will notice that concepts presented in the text, web passages, and lectures overlap to a certain extent.
2. Students will be outside looking at trees for a good portion of the course! Consider printing all assignments for the module you are working on (typically a page or two) and **highlight** what you need to locate and photograph. Take one trip to find as many of these as possible before returning to your computer to complete and post your assignments.
3. Post assignments (including images) on time.

Student Responsibilities:

Students agree to live up to their responsibilities in a timely manner. Students will need access to tracing paper, pruning saw, digging tool, a camera or cell phone with video recording capability.

Course Policies

Attendance Policy/Deadlines: Class will meet Tuesdays from 10:40 to 11:30 and Thursdays from 10:40 to 12:35. Assignments are due every Sunday by 11:59 pm.

Makeup Policy for Field Labs: Failure to appear to a field lab will result in a zero for that week's lab and will count towards your final grade for the course. **Students** that are unable to make a lab session can choose to write a 2 to 3-page double-spaced research paper on a relevant topic for that weeks' lab. The paper will be due 7 days after the field lab.

Exam Policy: There is a mid-term and a final. Both are comprehensive of material covered from the beginning of the course. Exams are multiple choice, short answer, and scenario based.

Course Calendar of Major Events

January 9, Sunday 11:59 pm:	Practice assignment due (not graded)
January 23, Sunday 11:59 pm:	Module 1 – Anatomy and Biology: assignment due
January 30, Sunday 11:59 pm:	Module 2 – Structure and Mechanics: assignment due
February 6, Sunday 11:59 pm:	Module 3 – Tree Identification and Selection: assignment due
February 13, Sunday 11:59 pm:	Module 4 – Soil Science and Water Management: assignment due
February 20, Sunday 11:59 pm:	Module 5 - Plant Health Care and Nutrition: assignment due
February 22, Tuesday:	Mid-term Review
February 27, Sunday 11:59 pm:	Module 6 – Site Preparation and Design: assignment due
March 6, Sunday 11:59 pm:	<u>Mid-term Exam Due</u>
March 13, Sunday 11:59 pm:	Module 7 – Installation and Establishment: assignment due
March 27, Sunday 11:59 pm:	Module 8 - Pruning: assignment due
April 3, Sunday 11:59 pm:	Module 9 – Tree Nurseries: assignment due
April 10, Sunday 11:59 pm:	Module 10 – Diagnostics and Disorders: assignment due
April 17, Sunday 11:59 pm:	Module 11 – Construction and Veteran Tree Care: assignment due
April 19, Thursday:	Final Exam Review
April 24, Sunday 11:59 pm:	Module 12 – Tree Risk Assessment: assignment due
	<u>Final exam given at listed time for the course</u>

Assignment Details and Grading Rubrics

Classroom Discussions/ Canvas Discussion Board: 10 % of grade

1. The instructor will assign weekly in-class discussion questions for students to go over in groups and then share with the entire class.

2. This will be used by the **students** to ask clarifying questions of the instructor regarding assignments and arboriculture topics in general.
3. Weekly questions that were covered in class will be posted to the discussion board in Canvas. Students that miss class will be responsible for answering that week's discussion question by Sunday 11:59 pm.

Classroom Discussions/Discussion Board Grading Rubric:

1. Actively participate in both group and entire class discussions or discussion board – an understanding of the subject matter requires that students have completed their weekly assignments (100%)

Assignment Board: 45% of your grade

Students will post all assignments to their individual assignment board by Sunday at 11:59 pm. Essentially, this is the lab portion of the course. This will be a very important method for us to discuss your comprehension of arboriculture. Assignments can be used as a showcase for a potential employer and can serve as a technical resource for you in the future.

Students may choose to not answer one of the listed questions (unless noted to be mandatory) for each Module. However, you **MUST** complete ALL questions in a module that include posted photographs! You will be responsible for learning the material you omit, and it will be included in the two exams. Assignments for each module will be in the form of a word document that will be posted to canvas on the Sunday before they are due. Include your response to the assignments directly underneath the text written for each assignment. Following submission of your completed Word file, **instructor** will post comments/questions/suggestions on your Word file through "Track changes" along with one grade to the entire module. These comments are meant to make you think more critically about your assignments.

Due Dates and Grade Points

1. Each Sunday by 11:59 pm - **Students** post completed assignments for the current module. Modules submitted by Monday 11:59 pm will be accepted, but 4 points (out of 10) will be subtracted from the grade. Modules submitted after that will not be graded and will receive a zero.
2. Sunday the week after an assignment is due – **Instructor** posts your Word file with comments and a grade for that module. Up to 10 points will be awarded according to the assignments board grading rubric for a total of 10 x 12 assignments = 120 points for the course.
3. **Your lowest grade** (i.e., 1 of 12) will be dropped from calculation of your final grade for the course! However, you will be responsible for this material on exams and at the field labs.

Be sure to read assignments completely well in advance of due date because many of them have an outdoor component (consider the weather in your planning) and some of them have a 3 to 4-page written report requirement. Grading rubric includes grammar, spelling, and punctuation components. Those speaking English as a second language will be accommodated accordingly.

Assignments Board Grading Rubric:

One grade will be assigned to each module based on

1. Completing all titled (including those that are mandatory) assignments (20%)

2. Answering the question(s) accurately using appropriate arboriculture vocabulary and concepts (20%)
3. Labeling or identifying relevant parts clearly and accurately (20%)
4. Writing in complete sentences using appropriate grammar, spelling, and punctuation (where writing text passages are appropriate) (20%)
5. Comprehension of arboriculture subjects relevant to the module (20%)

For each student, there is a total of 12 assignment grades for the semester. The rigor of grading will increase during the semester because the **student** will be expected to improve in all aspects of the grading rubric throughout the semester.

Note: Students are welcome to use the Landscape Teaching Laboratory which is a 10-acre outdoor facility located in Gainesville. It is open most days 8 AM to 4 PM. The site contains many trees of different species and sizes and is available for digging into soil; selected tools are available to help complete some assignments. Make an appointment well in advance (several days) with Chris Harchick (cell: (352) 262-9239).

On-Campus Field Labs: 15% of grade

There will be six to eight mandatory field labs conducted in Gainesville (i.e. main campus, city park, tree unit) during regularly scheduled class period. These will be a combination of guest lectures, skills assessment, and field instruction and will focus on arboriculture observational and field skills of material covered in past modules. Representatives from the industry will participate in these sessions. Failure to appear to a field lab will result in a zero for that session.

Grading Rubric: Grades will be assigned to students during field labs by the following:

1. Attendance
2. Participation

Written Examinations: 30% of grade

Two tests are planned, one March 8 (13% of final grade) and one final exam (17% of final grade). These will be timed tests designed to be "closed book". They will be multiple choice, fill in the blank, matching, and/or true/false with many questions so students will be challenged to think quickly. Tests will include previously covered material as well as questions not covered in other assignments, primarily from the reading material.

Course Grade:

93-100% A
90-92% A-
87-89% B+
83-86% B
80-82% B-
77-79% C+
73-76% C
70-72% C-
67-69% D+
63-66% D
60-62% D-
<60% F

UF Policies

Grades and Grade Points

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-gradingpolicies/>.

Absences and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Academic Honesty

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 Honor Code (<https://sccr.dso.ufl.edu/process/student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. 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 Health and 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.

Health and Wellness

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit <https://umatter.ufl.edu/> to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: Visit <https://counseling.ufl.edu/> or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit <https://shcc.ufl.edu/>.

University Police Department: Visit <https://police.ufl.edu/> or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; <https://ufhealth.org/emergency-room-trauma-center>.

GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit <https://gatorwell.ufsa.ufl.edu/> or call 352-273-4450.

Additional Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services <https://career.ufl.edu/>.

Library Support: various ways to receive assistance with respect to using the libraries or finding resources. <https://cms.uflib.ufl.edu/ask>

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring. <https://teachingcenter.ufl.edu/>.

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. <https://writing.ufl.edu/writing-studio/>.

Student Complaints On-Campus: Visit student code of conduct page for mor information. <https://sccr.dso.ufl.edu/policies/student-honor-%20code-student-conduct-code/>

On-Line Students Complaints: <https://distance.ufl.edu/student-complaint-process/>.

Services for Students with Disabilities

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://disability.ufl.edu/students/get-started/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.