

PLS 3223 PLANT PROPAGATION Syllabus

Spring 2021, Section 334B, Class #17634

Instructor: Erin Alvarez, Lecturer, M.S.

Please call me: she/her, Erin, Ms. Alvarez, a plant nerd

Office phone: 352.294-1582

Office phone forwards to my cell for calls but can't receive texts-check Canvas or your class notes for my cell number

Email: erinalvarez@ufl.edu

Works well, I get a LOT of email so try stopping by office hours or texting/calling if it's something immediate or quick.

Office Hours: on zoom or phone Tuesdays 1-3:00, or any other available time by appointment

During office hours I'll hang out on Canvas chat and also in a Zoom room (number and link on Canvas) for drop-ins, you can also chat with me on MS Teams, set an appointment to meet with me online at <http://erinalvarez.as.me>

Office Location: 2551 Fifield Hall, Zoomoffice # 404-498-8099

Communication:

Best way to contact me: in person. Texts, calls, zooms or other web meetings are all great. Email is also acceptable of course, especially if you want to submit a document or get something in writing (see above). Posting questions via open Canvas discussions is recommended if you're looking for general input from the class, and I encourage you to talk with each other. Since we may not see each other regularly via synchronous meetings, please check in with me early and often—even if you just want to talk about plants. Throughout the semester I'll ask you for input via discussion posts, assignment comments, and polls to see how things are going but please don't wait until then to reach out, offer feedback, or ask questions! If you experience technical issues with Canvas or your computer, [visit the helpdesk website](#) or call 392-4357.

Course Description

This course explores the principles and practices of propagation via seeds, vegetative propagules, grafting, and layering, and micropropagation. The physiological and anatomical underpinnings of sexual and asexual plant propagation are explored. In this course we will cover sexual and asexual methods of plant propagation, including but not limited to seeds, bulbs, divisions, layers, cuttings, grafting, and micropropagation. Our scope will also include the timing, technique, equipment and material selection for propagule production, the propagation environment, related technology, research and industry applications, and other selected aspects of propagating plants. Emphasis is placed on basic principles of plant propagation in research and commercial settings to provide a background within the context of agronomy, horticulture, forestry, and other disciplines of plant science.

Course Organization

Credits: 2; Prereq: BOT 2010C or BSC 2010; **Coreq: PLS 3223L**-these must be taken concurrently, no exceptions.

This course is 100% online this semester-this is typically a live course that has temporarily transitioned to web delivery.

Modules will progress week by week but the course content will be asynchronous unless otherwise announced.

All course material will be posted to Canvas.

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Labs (PLS3223L, see separate syllabus) will be taught online with optional live components, refer to PLS 3223L Canvas.

Course Objectives - Upon successful completion of this course you will:

1. demonstrate knowledge of the **science** of plant propagation through recognition of the processes and effects of plant physiological reactions, anatomical structure, and environmental influences on material used in plant propagation.
2. select appropriate propagation techniques and environmental variables to ensure propagule success.
3. synthesize course material for use in real-world situations to analyze and solve propagation problems.
4. effectively communicate plant propagation concepts and processes to a variety of audiences using proper vocabulary.
5. select and use plant propagation scholarly resources, trade publications, and professional society information for research, publication, and education.

Recommended Course Textbook (not required!):

Davies, Fred T., R.L. Geneve, and S.B. Wilson. 2018. **Hartmann and Kester's Plant Propagation: Principles and Practices. 9th Edition.** Pearson Education, Inc., London.

Additional Useful Materials (not required!)

Beyl, C.A. and R.N. Trigiano, (Eds.). 2016. *Plant propagation concepts and laboratory exercises*, 2nd Ed. CRC Press, Boca Raton, FL.

Brickell, C., T. Cole, & E. McDonald, (Eds.). 1993. *The American Horticultural Society Encyclopedia of Gardening*. DK Publishing, Inc. New York, NY.

Capon, B. 2010. *Botany for Gardeners, 3rd Ed.* Timber Press.

Free, M. 1957. *Plant propagation in pictures: How to increase the number of plants in your home & garden by division, grafting, layering, cuttings, bulbs & tubers, sowing seeds & spores.* The American Garden Guild, Inc. and Doubleday & Co., NY.

Garner, R.J. 2013. *The Grafters' Handbook, 6th Ed.* Chelsea Green Publishing, White River Junction, VT.

Toogood, A. 1999. *AHS Plant Propagation: The Fully Illustrated Plant-by-Plant Manual of Practical Techniques*

Elearning Site (Canvas): <http://eLearning.ufl.edu>. Login with your Gatorlink credentials. Weekly readings, links to videos, grades, and the current schedule and syllabus can be found on the Canvas site. *Note: dates may change during the semester-please refer to Canvas over the syllabus schedule for most updated dates and course information.*

Attendance and Make-up Work – Your active participation will be key to your success in the course, and each aspect of the class is designed to support your learning. If you know you will be unable to participate in class please let me know via email as soon as possible. Make up work and extensions will be permitted when the absence is university-approved or otherwise approved by the instructor. 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/UGRD/academic-regulations/attendance-policies/>

Course Accessibility- Wherever possible I try to design the course to be accessible for everyone. If I can do anything differently please don't hesitate to talk with me about it-let me know what I can do to make your learning experience more effective! 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/>

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

Due dates – All assignments will be due by 5pm on a Friday unless otherwise indicated-due dates will be posted to Canvas. You may always submit earlier that week with no penalty.

Grace Period- You will have up to a 48-hour penalty-free grace period to submit assignments after the posted due date. No questions asked, no explanation needed, no maximum number of times. You may not submit an assignment later than 48 hours after the posted due date except by prior arrangement.

Grading Scale by %

A	90-100
B+	86-89
B	80-85
C+	76-79
C	70-75
D+	66-69
D	60-65
E	<65

Total Possible Course Points: 400

- **Assignments:** 3, 1 @ 50 pts, 1 @ 30 pts, 1@ 20 pts, 100 possible points total
We'll have three assignments this semester, all of which require scholarly research and a demonstration of understanding of content covered in class. Details and due dates are available in Canvas.
- **Knowledge Checks:** 10, 10 points each, 100 possible points total
Ten announced knowledge check (KC) assignments will be posted to Canvas on the dates listed in the schedule. They will cover material from the lecture before the previous KC through the lecture before the current one, but all will cover material from any previous part of the semester. The formats will vary.
- **Plant Propagation Portfolio:** 200 points total
Each student will complete a comprehensive plant propagation portfolio highlighting sexual and asexual propagation techniques and research on a specific plant or group of plants. Details and due dates will be posted to Canvas. This portfolio will be split into two primary sections: seed and vegetative propagation and the final version will be due the last day of class.

Course feedback - Each semester I use student input to improve my courses-I welcome your feedback during the semester and look forward to constructive comments both informally and formally via GatorEvals. Please note: course evaluations are a professional academic tool, not a social media post or Amazon review. Useful guidance on how to give feedback in a professional and respectful manner is available at <http://gatorevals.aa.ufl.edu/students/>. Students will be automatically 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 <http://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <http://gatorevals.aa.ufl.edu/public-results/> .

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/scr/process/student-conduct-honor-code>.

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 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, 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-studentconduct-code>
- Online Course: <http://www.distance.ufl.edu/student-complaint-process>

Class Schedule

Subject to change! See Canvas for current final schedule, assignments, and dates-these may change from what's posted here. If a discrepancy exists, defer to Canvas dates.

Week	Dates	Lecture topics	Lab topic
1	1/11-15	Syllabus Week! Also Propagation and Human Society, Modern Propagation KC 1	Lab 1: Introduction
2	1/19-22	Biology of Plant Propagation, Development KC 2	Lab 2: Safety, Propagation Overview
3	1/25-29	Plant Propagation Environment KC 3	Lab 3: Propagation Environment
4	2/1-5	Portfolio Workday Assignment #1 Due 5pm 2/5: Plant Propagation Potential	Virtual Field Trip #1: Seed Banks
5	2/8-12	Seed Development Principles and Techniques of Propagation by Seed	Lab 4: Seed Harvesting, Dormancy
6	2/15-19	Techniques of Seed Production and Handling KC 4	Virtual Field Trip #2: Commercial Seed Nursery
7	2/22-26	Principles of Clonal Selection KC 5	Lab 5: Cuttings
8	3/1-5	Principles and Techniques of Propagation by Cuttings KC 6	Virtual Field Trip #3: Commercial Cutting Production
9	3/8-12	Layering Assignment #2 Due 5pm 3/12: Plant Science Fiction Fact Check	Lab 6: Layering
10	3/15-19	Grafting KC 7	Lab 7: Grafting
11	3/22-26	Geophytes KC 8	Lab 8: Geophytes
12	3/29-4/2	Tissue Culture, Micropropagation KC 9	Lab 9: Micropropagation
13	4/5-9	Assignment #3 Due 5pm 4/9: Lightning Pitch	Virtual Field Trip #4: Tissue Culture
14	4/12-16	Lightning Pitches and Portfolio Presentations KC 10	Lab Poster Presentations
15	4/19-21	Portfolio Presentations and Peer Reviews	Lab Practical Review, GH cleanout
16	4/26-30	Final Exam Week: Final Portfolio Due by 5 pm Wed 4/28	