

Botany 4223C: Plant Anatomy, Spring 2022 (19677)

Lecture: T & Th 9:00-10:15, BIO 209

Lab: Th 11:00-1:50 BIO 104

Instructor: Dr. Elizabeth Harris

Office: home **email:** elizabeth.harris@ucf.edu

Office Hours: One-on-one zoom by appointment (please email me)

Pre-requisite: BOT 3015, Principles of Plant Science

Required books/media:

-- Plant Anatomy by James D. Mauseth. 2008. Blackburn Press. (This is a reprint edition. You could also obtain the original 1988, Benjamin/Cummings edition. They are both the same.)

Dr. Mauseth maintains a website with many of the images from the text (and more!) at:

<http://www.sbs.utexas.edu/mauseth/weblab/>

--Drawing paper and graphite pencils mandatory (**no drawings shall be made in ink**). Colored pencils optional.

In order to document that you began this course, please complete the following academic activity by the end of the first week of classes, or as soon as possible after adding the course, but no later than January 15 at 11:59 pm. Failure to do so will result in a delay in the disbursement of your financial aid. Your online assignment is to take the **Syllabus Quiz**. It can be found in Webcourses. This is a short, one-question quiz.

Classroom Conduct: By enrolling at UCF, all students have agreed to abide by the Golden Rule. Please become familiar with this document at: <http://www.ucf.edu/goldenrule/>

Grading:

Syllabus Quiz	5
4 lecture exams @ 100 pts each	400
Final exam @ 100 pts	100
2 Lab practical exams @ 100 pts each	200
Best 12 out of 13 lab activities @ 25 pts (First lab = 20 pts)	295
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Total	1,000

A = 90% or greater; 900+ pts

B = 80-89%; 800-899

C = 70-79%; 700-799

D = 60-69%; 600-699

F = 59% or less; 599 or fewer points

Note: I do not assign + or – grades

Exams: Lecture exams will be of a mixed format including multiple choice, short answer, matching etc. and 2 **essay questions to be written in class**. The lab practical exams will consist of multiple microscope stations set up with slides, each with 2 questions. If you have a valid, documented reason for missing a lecture exam (from doctor, police, judge, official UCF event, etc.), you must contact me within 24 hours of the start of the exam and provide me with the appropriate documentation. Makeups for the lecture exams will then be scheduled at a mutually agreed on time. There will be **no** makeups for the lab practical exams due to their unique nature.

If you have a valid, documented reason for missing an exam during the week scheduled (from doctor, police, judge, official UCF event, etc.), you must contact me within 24 hours of the start of the exam and provide me with the appropriate documentation. Makeups for the exams will only then be scheduled at a mutually agreed on time.

Laboratories: The labs are a crucial part of this course and you are required to attend and complete **ALL** laboratory sessions. You will be examining microscope slides and making detailed, labeled drawings of what you see as well as answering some questions on the lab handouts. If you have a valid, documented reason for missing a laboratory session (from doctor, police, judge, official UCF event, etc.), you must contact me within 24 hours of the start of the lab and provide me with the appropriate documentation and then you will be allowed to make up the lab. Missed laboratory sessions can be made up with prior notification and arrangements (other classes use the room, so we will have to work around them.) Closed-toe shoes are required by OSHA regulations. There will be no smoking, eating or drinking in the laboratory.

Accessibility Statement: The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. All lecture and weekly overview videos will be presented as Panopto videos that have been carefully edited captions. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss and arrange for needed accommodations. Students who need accommodations must be registered with Student Accessibility Services, Ferrell Commons 185, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.

Tentative Lecture and Lab Schedule (subject to change, announced in Lecture and Weekly Overviews):

Please read the assigned readings listed below *before* coming to lecture.

	LECTURE T & Th 9-10:20	Chapter(s) covered	LAB Th 11-1:50
Jan. 11 T	1. Course intro/overview	Ch. 1	
Jan. 13 Th	2. The Cell	Ch. 2	1. Intro lab/ review plant body Cell inclusions/walls
Jan. 18 T	3. Parenchyma & Collenchyma	Chs. 3 & 4	
Jan. 20 Th	4. Sclerenchyma	Ch. 5	2. Parenchyma/Collenchyma Sclerenchyma
Jan. 25 T	5. Meristems	Ch. 6	
Jan. 27 Th	EXAM 1 (Lectures 1-4, Chapters 1-5)		3. Meristems
Feb. 1 T	6. Primary Xylem	Ch. 7	
Feb. 3 Th	7. Phloem	Ch. 8	4. Primary Xylem
Feb. 8 T	8. Secretory Cells and Tissues	Ch. 9	
Feb. 10 Th	9. Epidermis	Ch. 10	5. Primary Phloem
Feb. 15 T	10. Primary plant body: Stem	Ch. 11	
Feb. 17 Th	11. Primary plant body: Leaf	Ch. 12	6. Epidermis
Feb. 22 T	12. Primary plant body: Root	Ch. 13	
Feb. 24 Th	EXAM 2 (Lectures 5-9, Chapters 6-10) MID-TERM LAB PRACTICAL		7. Stems, Roots & Leaves
Mar. 1 T	13. Vascular Cambium	Ch. 14	
Mar. 3 Th	14. Secondary plant body: Xylem	Ch. 15	8. Secon Xylem in stems
Mar. 8 T	Spring Break		
Mar. 10 Th	Spring Break		
Mar. 15 T	15. Secondary plant body: Phloem	Ch. 16	
Mar. 17 Th	*no new lecture*		9. Secon Phloem & Vasc. Camb.
Mar. 22 T	16. Secondary plant body: Periderm and bark	Ch. 17	
Mar. 24 Th	EXAM 3 (Lectures 10-14, Chapters 11-15)		10. Periderm
Mar. 29 T	17. Secondary plant body: Anomalous growth	Ch. 18	
Mar. 11 Th	*no new lecture*		11. Anom Secon Growth
Apr. 5 T	18. Flower and strobilus	Ch. 19	
Apr. 7 Th	19. Gametogenesis	Esau Ch. 21	12. Flowers
Apr. 12 T	20. Seeds	Ch. 20	
Apr. 14 Th	21. Fruits	Ch. 21	13. Fruits & seeds
Apr. 19 T	EXAM 4 (Lectures 15-21, Chapters 16-21; Esau 21)		
Apr. 21 Th	FINAL LAB PRACTICAL		
Apr. 28 Th	Final Exam—7:00 – 9:50 (cumulative over entire semester)		