PLS 597, Plant Propagation

COURSE SYLLABUS: SPRING 2026

INSTRUCTOR INFORMATION

Instructor: Desire Djidonou, (Dr. D), Associate Professor – Urban/Sustainable Horticulture
Office Location: Ag/ET 248
Office Hours: T&R 1 – 2 pm (Ag/ET) or by appointment
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University Email Address: desire.djidonou@etamu.edu
Preferred Form of Communication: email

COURSE INFORMATION

Time & location:

Class will meet M & W from 10:00a - 10:50a Location: PSC 101.

Materials – Textbooks, Readings, Supplementary Readings

Recommended Textbook

Hartmann & Kester's Plant Propagation: Principles and Practices*, 9th Edition*. 2018. Fred T. Davies, Jr., Robert L. Geneve, and Sandra B. Wilson. Pearson.

Course Description

This course provides a thorough overview of the principles underlying the science of plant propagation and the technical practices associated with sexual and asexual plant propagation. The laboratory exercises provide additional in-depth information and hands-on practices that illustrate methods of propagating plants by seeds, cuttings, grafting, budding, bulbs, divisions, layers, and micropropagation (tissue culture). Basic plant biology concepts, environmental control of facilities associated with propagation structures and growing media requirements will be discussed.

Prerequisites: PLS 1315, 1115, or PLS 1307, 1107

The *syllabus/schedule are subject to change.*

Student Learning Outcomes

At the end of this course, students should have:

1. developed a comprehensive knowledge and understanding of the basic scientific principles underlying sexual and asexual plant propagation;
2. demonstrated proficiency in propagation of plants by seeds, cuttings, grafting, budding, layering, division, and micropopagation (tissue culture);
3. developed an understanding of specific kinds of plants and methods by which those plants can be propagated most successfully;
4. developed an in-depth knowledge of the technical terminology and vocabulary associated with the plant propagation and their proper use in oral discussion and writing;
5. Develop writing and presentation skills through collection, analysis, and presentation of data pertaining to plant propagation.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Basic knowledge of Microsoft office (Word, Excel, and PowerPoint) and familiarity with D2L. Students will need reliable internet access to retrieve course materials and complete online quizzes and exams if needed.

Instructional Methods

Lectures: The lecture materials (PowerPoint presentation, additional readings) will be posted on the course D2L shell prior to class for students to download.

Labs: The lab activities provide some hands-on experiences on techniques of plant propagation specific to each plant type. Each lab session will involve presentation of lab instructions and short lecture followed by greenhouse propagation techniques. Students are required to attend all lab sessions as these cannot be made up. Some labs will be group exercises but your active participation is essential as each student will be graded individually on lab performance based on written reports.

NOTE: Some lab activities will require monitoring of propagated materials outside of the scheduled class time. As such, students will need to coordinate within group members to share these responsibilities.

Field Trip: We will make arrangements with local nurseries (Ruibal's and Casa Flora) for a visit to learn about their activities.

Additional Project for Graduate Course Credit

Individual Lab Project: Graduate students taking this course will conduct an independent project in which you test a hypothesis about some aspect of plant propagation. More information on this project will be provided during the semester.

Student Responsibilities

Expectation of Students

1. Attendance to all classes and lab sessions is required unless ill;
2. Be on time to class and lab;
3. Active participation in classroom discussions on topics brought out in lecture is highly encouraged;

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4. Completion of homework assignments, quizzes, lab reports by the due dates;
5. Late submission of assignments or make-up quizzes, exams and other work will only be allowed for legitimate, pre-excused absence.

ASSESSMENTS and GRADING

Course evaluation

Student's final grade will be based on 700 points total from exam, quizzes, assignments, lab reports

Items	Points	Percentage
Exam 1	100	10
Exam 2	100	10
Exam 3	100	10
Final Exam	150	15
Quizzes	100	15
Homework assignments	50	5
Lab and field trip reports	200	30

Exams: (Vocabulary, Multiple Choice, T/F, Matching, and Short Answer): There will be three one-hour exams and one 2-hour final exam. The exams will include material from lecture and hands-on activities. Exam dates are given below in the tentative semester schedule.

Quizzes: There will be 4 to 5 quizzes between exams intended to help you review concepts covered in the course. All quizzes will be available online for 48 hours in the D2L portal. The quiz will involve short questions to evaluate student learning of each complete chapter

Homework assignments: A set of questions and terminologies will be periodically assigned to you as homework. These terms are essential for understanding plant propagation and are meant for review and study guide for exams.

Lab reports: You will be required to submit an individual report on each lab activity.

Field trip: Take note and be attentive and ask questions. Submit a report describing the nursery visited, information provided, lesson learned, and practical knowledge gained.

Independent Project: Graduate students will prepare a presentation to share their results to the class.

Grade Assignment

Letter grades for the course will be assigned according to the chart below:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:
https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:
https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:
https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu**.**

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:
https://community.brightspace.com/support/s/contactsupport

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Attendance to lectures and lab activities are required unless ill.

The *syllabus/schedule are subject to change.*

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.
http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at East Texas A&M University are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

AI use in course

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or

suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.
In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty
13.99.99.R0.10 Graduate Student Academic Dishonesty

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
East Texas A&M University Gee Library-Room 162
Gee Library- Room 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu
Website: Office of Student Disability Resources and Services
http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

A&M-Commerce Supports Students' Mental Health

The Counseling Center at East A&M, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.

http://telusproduction.com/app/5108.html

Nondiscrimination Notice

East Texas A&M University will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE OUTLINE / CALENDAR

Lecture Schedule: M&W 10:00a-10:50a Location: PSC 101

Module	Week	Date	Lecture	Reading Assignment
1- General Aspect of Propagation	1	Jan 12 Mon	Course introduction and syllabus review	-
		Jan 14 Wed	Intro to Plant Propagation	Chapter 1
	2	Jan 19 Mon	No class (Martin Luther King Jr. Day)	
		Jan 21 Wed	Intro to Plant Propagation	Chapter 1
	3	Jan 26 Mon	Biology of Plant Propagation	Chapter 2
		Jan 28 Wed	The Propagation Environment	Chapter 3
		Exam 1		
2- **Seed** Propagation	4	Feb 2 Mon	Seed Development	Chapter 4
		Feb 4 Wed	Seed Development	Chapter 4
	5	Feb 9 Mon	Principles and Practices of Seed Selection	Chapter 5
		Feb 11 Wed	Principles and Practices of Seed Selection	Chapter 5
	6	Feb 16 Mon	Principles of Propagation from Seeds	Chapter 7
		Feb 18 Wed	Principles of Propagation from Seeds	Chapter 7
	7	Feb 23 Mon	**Exam 2**	Chapters 3-7
		Feb 25 Wed	**Exam 2 review**	
3- **Vegetative** Propagation	8	Mar 2 Mon	Principles of Propagation by Cuttings	Chapter 10
		Mar 4 Wed	Principles of Propagation by Cuttings	Chapter 10

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	9	Mar 9 Mon	No class (Spring Break)	
		Mar 6 Wed	No class (Spring Break)	
	10	Mar 16 Mon	Techniques of Propagation by Cuttings	Chapter 11
		Mar 18 Wed	Techniques of Propagation by Cuttings	Chapter 11
	11	Mar 23 Mon	Principles of Grafting and Budding	Chapter 12
		Mar 25 Wed	Techniques of Grafting	Chapter 13
	12	Mar 30 Mon	Techniques of Grafting	Chapter 13
		Apr 1 Wed	Techniques of Budding	Chapter 14
	13	Apr 6 Mon	**Exam 3**	Chapters 9-14
		Apr 8 Wed	Layering and Its Natural Modifications	Chapter 15
	14	Apr 13 Mon	Propagation by Specialized Stems and Roots	Chapter 16
		Apr 15 Wed	Propagation by Specialized Stems and Roots	Chapter 16
4- Tissue Culture	15	Apr 20 Mon	Principles and Techniques of Micropropagation from Meristematic Tissue	Chapter 17
		Apr 22 Wed	Principles and Techniques of Micropropagation from Meristematic Tissue	Chapter 17
	16	Apr 27 Mon	Principles and Techniques of Plant Tissue Culture from Non-	

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			meristematic Tissue	
		Apr 29 Wed	Principles and Techniques of Plant Tissue Culture from Non-meristematic Tissue	Chapter 18
	17	May 4 Mon (10:30 – 12:30)	**Final Exam**	Chapter 15-18

Laboratory schedule: M 1:00p-2:50p Location: PSC 101

Week	Date	Lab Exercises	Location
1	Jan 12 Mon	Introduction and lab syllabus, Greenhouse tour, lab rules and procedures	PSC 101
2	Jan 19 Mon	No lab (Martin Luther King Jr. Day)	
3	Jan 26 Mon	Seed Propagation: Germination Environment and Seed Viability	PSC 101
4	Feb 2 Mon	Seed Propagation: Germination Environment and Seed Viability	PSC 101
5	Feb 9 Mon	Seed Propagation: Combating Physical and Physiological Dormancy	PSC 101
6	Feb 16 Mon	Tissue Culture	Dr. Song Lab, AgriLife Dallas
7	Feb 23 Mon	Transplanting Seedlings	
8	Mar 2 Mon	Cutting Propagation	PSC 101
9	Mar 9 Mon	No lab Spring break	PSC 101
10	Mar 16 Mon	Herbaceous Cutting Propagation	PSC 101
11	Mar 23 Mon	Propagating Ground Covers Seeding tomato for vegetable grafting	
12	Mar 30 Mon	Bench Grafting and Budding	PSC 101
13	Apr 6 Mon	Tomato Grafting	PSC 101
14	Apr 13 Mon	Evaluate Tomato Grafting	PSC 101
15	Apr 20 Mon	Field Budding	PSC 101
16	Apr 27 Mon	Layering; Propagation by Specialized Stems and Roots Graduate Students Presentation	PSC 101
17	Apr 29 Mon	Field trip	***Ruibals or Casa Flora***

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