

PLS 1107 Intro. to Plant Science Lab COURSE SYLLABUS: Summer I 2023

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COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings:

No text required: All materials will be provided.

Course Description

Provide hands-on practical exercises that illustrate plant growth and development phases including seed germination, vegetative and reproductive morphology evaluation. Techniques and instruments used to evaluate plant metabolic processes, including photosynthesis, respiration, and water stress are evaluated. Basic calculation related to fertilizer application, pesticide and sprayer calibration will be demonstrated.

This course is designed to complement the lecture material from PLS 1307.

Prerequisites: None.

Student Learning Outcomes

Upon successful completion of the course, the student will be able to:

- 1. Recognize the genus, species, variety, cultivar, and hybrid in the scientific name of a plant.
- 2. Identify and describe the various parts and functions of seed, leaves, stems, flower, fruits, and roots.
- 3. Propagate plant materials from seeds and know how temperature, light, moisture affect seed germination and seedling growth.
- 4. Calculate fertilizer requirements for applying fertilizer rates and concentrations.
- 5. Explain the processes of photosynthesis and respiration and know how to measure them.
- 6. Apply the knowledge of plant science to grow a number of crops from seed to seed.

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

<u>Lectures:</u> The lecture materials (PowerPoint slides, video recording, and additional reading materials) will be made available on the course D2L page for students to download.

Student Responsibilities

Expectation of Students

- 1. Students are expected to attend all lab activities unless ill;
- 2. Be on time to lab;
- 3. Completion of homework assignments, and quizzes by the due dates;
- 4. Late submission of assignments or make-up of quizzes, and other work in this course will only be allowed for legitimate, pre-excused absences.

ASSESSMENTS and GRADING

Course Evaluation

Student's final grade will be based on 500 points total from quizzes, lab reports, class presentation, and plant collection

Items	Points
Quizzes	200
Lab reports	100
Class presentation	100
Plant collection	100

Quizzes: (Multiple choice): 5 weekly 20 point guizzes and one final guiz.

<u>Lab reports</u>: You will be required to submit an individual report on each lab activity. 20 points each report.

<u>Presentation</u>: Students will give group presentation on the research projects conducted during the lab.

<u>Plant Collection:</u> Student will collect and prepare a digital herbarium of 50 plant specimens.

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 Texas A&M University-Commerce 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.

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 <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01</u>.

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 Texas A&M University-Commerce 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

 $\underline{http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf}$

Al use in course

Texas A&M University-Commerce 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

Texas A&M University-Commerce 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/

The Counseling Center at A&M-Commerce, 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

Nondiscrimination Notice

Texas A&M University-Commerce 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 <u>Carrying Concealed Handguns On Campus</u> 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

Lab schedule: Tuesday, 8:00am – 5:00pm Location: PSC 101

Week	Date	Lab Topic
1	June 06 Tue	Lab introduction and syllabus review
		Plant classification
		Seed and seed germination
		Vegetative morphology
2 June 13 Tue	June 13 Tue	Reproductive morphology
		Plant nutrition and fertilizers
3	June 20 Tue	Photosynthesis and respiration
		Basic soil properties
4 June 27 Tue	Soil and plant water relations	
		Introduction to pest and pesticide
		Research project termination
5	July 05	Final research presentation
		FINAL Quiz