

SYLLABUS

HORT 202

Horticulture Science and Practices Laboratory

Fall 2022

Graduate Teaching Assistants

Katy Davidson

Jacob Muras

Tessa Hochhaus

David Wm. Reed, Lab Coordinator

Day	Section	Time	Graduate Teaching Assistant
Monday	501	2:00 - 4:50	Katy Davidson
Tuesday	502	1:00 - 3:50	Jacob Muras
Wednesday	503	9:10-12:00	Katy Davidson
Wednesday	504	2:00-4:50	Tessa Hochhaus
Thursday	505	1:00 - 3:50	Tessa Hochhaus

Location: Horticulture Forest Science Building (HFSB) 112.

Prerequisite: HORT 201 or registration therein.

Required Text

General Horticulture Laboratory Manual ISBN 0-8087-9470-1, Third Edition; David Wm. Reed

Learning Outcomes

Horticultural Science and Practices Lab is designed to provide a broad understanding of horticulture through basic and applied science. This is achieved through weekly quizzes over concepts, applied laboratory exercises that emphasize creating and interpreting qualitative and quantitative data and synthesis of underlying concepts through observation and discussion of specimens and technique, and individually prepared written in-depth analysis of experimental results.

- To develop a functional knowledge in basic Botany
 - Learn scientific terminology to describe plant anatomy and morphology
 - Understand the taxonomic relationships of plants
- To develop a functional knowledge Plant Physiology, Growth and Development
 - Understand the practical means to manipulate the plant physiology for practical purposes

- Application of chemical growth regulators to illustrate the junction of plant biochemistry, plant form and shape and economic impacts on horticultural crops.
- Introduction to plant essential elements and their use as fertilizers.
- Conduct experimentation with fertilizer application levels as a means of demonstrating physiological response, and as a platform for the discussion of environmental responsibility.
- Soil Science
 - Develop a working knowledge of physical and chemical properties of soils, soil conservation and use of sustainable materials for horticultural production.
 - Learn how to compose and use artificial soils.
- Entomology
 - Understanding entomology of horticultural crops.
 - Learn to identify the most common horticultural pests.
- Horticulture Principles
 - Understand the principles of asexual and sexual plant propagation techniques.
 - Learn the methods and techniques of sexual and asexual plant propagation.
 - Understanding of the care of landscape plant materials.
 - Become proficient in basic horticultural mathematical calculations.

Instructors: Graduate Teaching Assistants

Tessa Hochhaus	Katy Davidson	Jacob Muras
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Office Hours

Each instructor will inform you of his/her office hours.

Course Delivery and Format

- **Overall rule – Attendance is mandatory**
- It will be explained later why attendance is mandatory.
- Course Delivery: Face-to-face in HFSB 112
- Quizzes are only delivered via Canvas. **Therefore, for quizzes every student MUST bring a laptop/tablet to class that can connect to the internet and access Canvas.** This is how every weekly quiz will be administered. No laptop/tablet = No ability to take the quiz.

Attendance and Make-up Labs

The lab is 100% experiential learning through experiments and demonstrations, therefore attendance is mandatory, unless you have a University acceptable and documented excuse.

- Attendance: You must attend each lab in its entirety. If you arrive late after the quiz is over, you will not be allowed to take the quiz. If you depart early (before the entire class is dismissed), your quiz grade will be zero on that week’s weekly quiz.
- Missed labs due to an excused absence (defined in the Student Rules (see <http://student-rules.tamu.edu/rule7.htm>)):

- If one misses lab due to an excused absence, the student has the option to attend another lab section, later in the week. **Permission must be obtained from both lab instructors.**
- If you can not attend another lab section, you will be given a lecture recording of a previous semester. You must watch this lecture before your lab section the following week in order to take the quiz for that lecture at the normal time.
- Quiz missed due to excused absence.
 - You will be given the number of days to make-up the quiz equal to the number of working days of the excused absence, starting with the day of the quiz. For excuses beyond a week, arrangements are made case by case. For example, if you have an illness and an excused absence for 2 days (the day of the quiz plus the next day), then you are allowed 2 calendar days, and the make-up exam must be taken by the end of the 3rd day.
 - If the excused absence is for a planned event, such as sponsored activity, and no lectures are missed, then you may take the quiz before departure. If feasible, a Zoom proctored quiz may be administered at an arranged time on the day of the quiz while on the trip.
- Missed labs due to a non-excused absence
 - You will miss the quiz and receive a grade of 0.
 - Technical difficulties (such as no Wi-Fi, broken/dead computer) that cause you to miss the lab or lab quiz will be counted as an unexcused absence. If you have a technical problem or situation beyond your control, call your instructor immediately to find out if arrangements can be made.
- You may only miss a maximum of 3 labs, unexcused (not counting week 1 during the drop/add period). If you miss 4 or more labs, you may either receive a grade of “I” (incomplete) if there are valid reasons for missing the labs or your grade will be F. This decision will be made on a case-by-case basis by the lab coordinator, with a recommendation from the graduate teaching assistant.

Grading Weight

Weekly quiz grades = 50%

Lab reports = 50%

Grading Scale

A = 90-100, B = 80-89, C = 70-79, D= 60-69, F <=59

However, the grading scale may be adjusted lower to normalize clustering of letter grades between lab sections.

Weekly Quizzes:

Weekly quizzes are given every lab and will be taken in Canvas. You must bring your laptop to class in order to take the quiz. You will take 12 weekly quizzes. You are allowed to drop your 2 lowest grades. Your quiz grade will be based on your 10 highest quiz grades. Grades of 0 for missing a week’s lab can be used as a drop grade. Each quiz will be worth 10 points; 8 points of each quiz will be based on the previous week’s lab material and 2 points of each quiz will be based on background information from the current week’s lab material. **Therefore, you are required to read each week’s lab material BEFORE coming to class.** Each quiz will be 10 minutes long and start 5 minutes after the start of class time. If you arrive or login while a quiz is in progress, you may take the quiz, but you must complete it by the standard completion time (i.e., you will not be given an extension). If you arrive or login after the quiz has been completed and collected, you will receive a grade of 0 for that quiz. Any student departing from lab early will have his/her quiz invalidated (a grade of 0) and will be considered absent for that lab. In other words, you must attend the entire lab period for your quiz to count; unless permission is granted by the instructor.

Lab Report:

- We will be conducting a series of lab exercises throughout the semester. Most exercises will produce data. Your lab report grade will be based on **data** collected and **questions** answered about each exercise. **Data** will be collected and shared in class. If you are absent, you are responsible for obtaining missing **data** from the instructor.

- The class will collect data, observe the plants and discuss the results and what it means.
- However, the answers to **questions** in your lab report must be your own and cannot be the result of discussion with others after the lab is over. **You must work by yourself** in interpreting the data and your notes from the class discussion to answering the questions. Any duplicated/plagiarized answers that are found between lab reports will be considered academic misconduct. If it is determined that you worked with others in developing answers, this will be handled as academic misconduct and you will receive a grade of F in the course (see <http://www.tamu.edu/aggiehonor>).
- The data sheet can be found in a Google Drive that will be made available to you. The data sheet will be an editable file so that you can fill in with the data you collect during class, and share it with your fellow students.
- The lab questions will be found on canvas so that you will be able to download and answer on your own. This is to prevent plagiarism.
- You may approach your instructor to discuss any aspect of the lab.
- Grading:
 - Data Sheet = 5pts
 - Questions = 2pts per question
- Lab reports will be due as experiments are finished. These will occur throughout the semester; however, many these will occur towards the end of the semester. Your lab instructor will remind you of the exact dates during the semester. **For lab reports turned in after the due date, the grade for that report will be reduced by 10% per day late.**

Calendar Week	Laboratory Exercise
Aug 29-Sep 2	Lab 1, Orientation to the Laboratory
Sep 5-9	Lab 2, Recognition of Plant Structures
Sep 12-16	Lab 3, Plant Identification & Taxonomy
Sep 19-23	Lab 4 Temperature
Sep 26-30	Lab 5: Light
Oct 3-7	Lab 6, Growth Control
Oct 10-11	Fall Break; No classes
Oct 12-14	Lab 7, Growing Media & Soils
Oct 17-22	Lab 8, Asexual Propagation
Oct 24-28	Lab 9, Sexual Propagation
Oct 31- Nov 4	Lab 10, Nutrition & Fertilizers

Nov 7-11	Lab 11, Pest Identification & Control
Nov 14-18	Lab 12, Pruning, Bracing, Cabling in the Landscape
Nov 21-25	Thanksgiving Break; No classes
Nov 28-Dec 2	Lab 14, Overview of Turf Grass Location: Turf Grass Center Meet in HSFb first for Quiz and Data collection
Dec 2	All remaining lab reports due by 5PM, Friday, Dec 2. This is a hard deadline with late penalties.

Hazardous Materials Statement

Do not perform any procedure until all risks are understood and all actions can be performed in a safe, informed manner. When in doubt, ask your instructor for help

- Hazards in the Hort 202 laboratory include:
 - Chemicals
 - fertilizer solutions (Lab 10)
 - plant growth regulators (Lab 6)
 - rooting compounds (Lab 8)
 - cleaning solutions (Lab 9)
 - concentrated sulfuric acid (Lab 9)
 - Chemicals will be handled with gloves, and with protective clothing when appropriate. Students will be strictly monitored. Any improper exposure to these chemicals should be reported to the instructor immediately.
 - Air-borne Irritants (Labs 4-10)
 - perlite
 - vermiculite
 - Particulate masks will be issued to students when appropriate. Students with respiratory problems may be exempt from primary contact with these components with a doctor's excuse, or by permission of the instructor.
 - Mechanical Hazards (Lab 8 & 9)
 - The use of sharp instruments in lab is required, and students should exercise caution. The best way to avoid injury is to proceed slowly and follow instructions.

Copyrights

Please note that all handouts and supplements used in this course are copyrighted. This includes all materials generated for this class, including but not limited to syllabi, exams, in-class materials, review sheets, and lecture outlines. Materials may be downloaded or photocopied for personal use only and may not be given or sold to other individuals.

Americans with Disabilities Act (ADA) Policy 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 believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information, visit <http://disability.tamu.edu>.

Academic Integrity Statement and Policy

No form of academic misconduct will be tolerated in HORT 202 lab. Be aware that copying answers during lab

quizzes, any copied or plagiarized answers, or any answers developed in discussion with others in lab reports are forms of academic misconduct. Please refer to Student Rules (<http://student-rules.tamu.edu/>) and the Honor Council Rules and Procedures (<http://aggiehonor.tamu.edu/Students/>). It is the student's duty to read, understand and comply with these policies.

"An Aggie does not lie, cheat or steal, or tolerate those who do."