

SYLLABUS

HORT 202

HORTICULTURE SCIENCE AND PRACTICES LABORATORY

FALL 2016

David Wm. Reed, Lab Coordinator

Graduate Teaching Assistants

Taya Brown

Evan Baker

Kaitlin Hopkins

Day	Section	Time	Graduate Teaching Assistant
Monday	501	2:00 - 4:50	Kaitlin Hopkins
Tuesday	502	12:45 - 3:35	Taya Brown
Wednesday	503	9:10 – 12:00	Evan Baker
Wednesday	504	2:00 – 4:50	Taya Brown
Thursday	505	12:45 – 3:35	Evan Baker

Location: Horticulture Forest Science Building (HFSB) 112

Prerequisite: HORT 201 or registration therein.

Required Text

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

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 teamwork in creating and interpreting qualitative and quantitative data and synthesis of underlying concept in group discussion, observation and discussion of specimens and technique on field trips, and individually prepared written in-depth analysis of team-collected 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.
 - Experimentation with fertilizer application levels as a means of demonstrating physiological response, and as a platform for the discussion of environmental responsibility.
- Soil Science
 - Provide a working knowledge of physical and chemical properties of soils.
 - Introduction to 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

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Office Hours

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

Attendance and Make-up Labs

- The lab is 100% experiential learning through experiments, demonstrations and short field trips, thus has a unique attendance and make-up policy.
- Attendance is mandatory. You must attend each lab in its entirety: late arrival (after the quiz is over) and/or early departure (before the entire class is dismissed) will result in a 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>):
 - Make-up the lab by attending another lab section that week. You must seek permission from the instructor of your lab section and the instructor of the lab section you wish to attend.
- Missed labs due to a non-excused absence:
 - With permission due to certain extenuating circumstances you may contact your TA and request to miss your lab section and attend another lab section that week. Again, permission must be granted by both TAs.
- Why must all make-ups be the same week? Each lab is a one-time experiment, demonstration or field trip. Thus, once that week passes, there is no opportunity for a make-up.
- If the missed lab cannot be made up **during that week**, your quiz grade for that week will be a 0. (but can be used as a drop grade)
- You may only miss a maximum of 3 labs, excused or not (not counting week 1 during the drop/add period). If you miss 4 or more labs (that are not made-up by attending another lab that week), you will receive a grade of "I" (incomplete) and must attend the labs the next semester to make-up the labs.

Grading Weight

Weekly quiz grades = 50%

Lab report = 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. 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 general information 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 start of class time. If you arrive 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 after the quiz has been completed and taken up, 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 as a group and shared in class. If you are absent, you are responsible for obtaining missing **data** from the instructor.
- As a group, 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>).
- You may approach your instructor to discuss any aspect of the lab.
- Lab reports will be due as experiments are finished. These will occur throughout the semester; however, a large number of 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.**

Lab Schedule

	Calendar Week	Laboratory Exercise
Week 1	Aug 29–Sept 1	Lab 1, Orientation to the Laboratory
Week 2	Sept 5-8	Lab 2, Recognition of Plant Structures
Week 3	Sept 12-15	Lab 3, Plant Identification & Taxonomy
Week 4	Sept 19-22	Lab 4 & 5, Temperature & Light
Week 5	Sept 26–29	Lab 6, Growth Control
Week 6	Oct 3-6	Lab 7, Growing Media & Soils
Week 7	Oct 10-13	Lab 8, Asexual Propagation
Week 8	Oct 17-20	Lab 9, Sexual Propagation
Week 9	Oct 24-27	Lab 10, Nutrition & Fertilizers
Week 10	Oct 31-Nov 3	Lab 11, Pest Identification & Control
Week 11	Nov 7-10	Lab 12, Pruning, Bracing, Cabling in the Landscape (field trip)
Week 12	Nov 14-17	Lab 14, Overview of Turfgrasses (field trip)
Week 13	Nov 21-23	No labs on Thanksgiving week.
Week 14	Nov 28-Dec 1	Lab 13, Overview of Fruits, Vegetables & Howdy Farm (field trip)
Week 14	Dec 2	All remaining Lab Reports due by 5 PM, Friday, Dec. 4

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

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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."