

# HRT 204 – Plant Propagation and Use

Spring Semester 2025

## Part 1: Course Information

### Instructor Information

Instructor: Miranda Haus  
Office: A218 Plant and Soil Sciences Bldg.  
Office Hours: Virtual Friday 1-2pm  
E-mail: [hausmira@msu.edu](mailto:hausmira@msu.edu)  
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### Course Objectives

1. Demonstrate theoretical understanding and practical application of asexual propagation principles.
2. Demonstrating theoretical understanding and practical application of sexual propagation principles.
3. Describe common crop production systems.
4. Explain plant uses and maintenance for a variety of production systems.
5. Use skills in plant identification and knowledge of genetic variation to simulate plant selection and breeding programs.
6. Successfully propagate plants using a variety of techniques including rooting of cuttings, micropropagation, grafting, layering, seed germination, and pruning practices.
7. Troubleshoot and evaluate common problems in plant propagation.

### Course Structure

Pre-lecture quiz is due before class each Monday.

Lecture meets Monday and Wednesday (10:20 – 11:10) in A149 PSSB.

Lab meets Thursday in B109 PSSB.

Section 1: 8:00 AM – 9:50 AM

Section 2: 10:20 AM -12:10 PM

Section 3: 12:40 PM - 2:30 PM

Section 4: 3:00 PM - 4:50 PM

Assignments will be saved as a Word or pdf file and turned in by uploading them into the appropriate assignment folder on D2L. Label the file with your last name followed by the appropriate title (i.e. Your name Assignment 1).

### Textbook & Course Materials

- Suggested: *Plant Propagation: Principles and Practices* (9th edition) by Davies, Geneve, Wilson, Hartmann, and Kester. 2018. Pearson. (ISBN 9780134480893).
  - [Electronic versions available at VitalSource in two e-book formats.](#)
  - Older editions may be found on Amazon or other reused book sellers.
- Lecture notes are available on Desire2Learn (D2L) at <https://d2l.msu.edu> under Content.

### **HRT 204 Instructor-Learner Interaction Plan**

Students are expected to visit D2L every weekday to check for updates and announcements. The course calendar will provide relevant dates for major and minor events, such as exams and quizzes, respectively. Announcements will be used to communicate unusual circumstances; such as if there is a change to the course plan or as a reminder if we are meeting in an alternative location.

I check email once per day in the morning, but do not check email on Thursday. There are four lab sections on Thursday, so my workday runs from 7:30am-6pm. If an email is sent Wednesday night, I will not see it until Friday morning. Emails will be answered within 48 hours on weekdays.

The best way to contact me is through the course Q and A discussion board (linked) or during office hours. I will respond to the Q & A board within 48 hours of the post (on weekdays).

Office hours are virtual via Zoom (link to information page about Zoom office hours) on Fridays from 1:00-2:00pm. Students are encouraged to respond to inquiries on the Q and A board.

There are no in-class review sessions, but there will be an exam review discussion board for each exam and extended office hours the Friday before the exam.

Please limit Q&A posts to content specifically related to HRT 204. There is an alternative “Fun Horticulture Things” discussion board (linked) where students can share fun facts, plant sale information, cool resources, etc.

The timeline for posting grades depends on the assessment.

- Pre-lecture and pre-lab quizzes will be graded immediately after the attempt. Automated feedback is provided after the attempt.
- Weekly in-class worksheets will be graded and course-wide summary feedback will be posted to D2L the following Sunday evening.
- Individual assessments (exams, discussion posts, essays, etc.) will be graded within a week of their due date. Individual feedback will be provided in the D2L gradebook.
- I reserve the right to extend grading time during personal emergencies.
- Alternative feedback options (e.g. audio feedback) are available upon request!

### **D2L Email**

Class emails that I send through D2L are not automatically forwarded to your normal university email account so you may not see them until you open D2L. You can change your notification settings in D2L by clicking on your name when you open D2L, then click on notifications.

### **Technical Assistance with D2L**

If you need technical assistance with D2L at any time during the course

- Visit the [Distance Learning Services Support Site](#)
- Visit the [Desire2Learn Help Site \(http://help.d2l.msu.edu/\)](http://help.d2l.msu.edu/)
- Or call Distance Learning Services: (800) 500-1554 or (517) 355-2345

### Part 3: Lecture Outline/Schedule

Week	Date Start	Topic (Labs will meet in person except for week 1)
1	Jan 12	Plant Propagation Environments
2	Jan 19	Plant Nomenclature and Morphology
3	Jan 26	Cuttings
4	Feb 2	Micropropagation
5	Feb 9	Layering
6	Feb 16	Grafting and Budding
7	Feb 23	Flowers and Pollination
8A	Mar 2	Seeds and Germination
8B	Mar 9	Commercial Seed Industry
	Mar 16	Spring Break
9	Mar 23	Geophytes
10	Mar 30	Pruning
11	Apr 6	Plant Use in Gardens and Landscapes
12	Apr 13	Genetic Selection and Breeding
13	Apr 20	Final Exam

### Part 4: Lab Schedule

Week	Date	Topic (Labs will meet in person except for week 1)
1	Jan 12	Introduction, Greenhouse Tour
2	Jan 19	Plant Dissection and Histology, Fruit and Vegetable ID
3	Jan 26	Hardwood and Herbaceous Cuttings, Cutting propagation of student's choice
4	Feb 2	Micropropagation at the Plant Biotechnology Resource and Outreach Center; Fern Spore Germination
5	Feb 9	Air Layering; Mound Layering
6	Feb 16	Hardwood and Herbaceous Grafting, Budding
7	Feb 23	Cross Pollination
	Mar 2	Spring Break
8A	Mar 9	Tour MSU Herbarium, Fruit and Seed ID
8B	Mar 16	Priming and Pregermination, Seed Moisture Effects, Scarification, Stratification
9	Mar 23	Scaly bulbs, tunicate bulb, tubers, and root division
10	Mar 30	Pruning at Horticulture Teaching and Resource Center
11	Apr 6	Landscape Plant ID Outdoor plant walk
12	Apr 13	Genetic Selection of Petunias, Lab Practical

\*the last 3 labs are subject to change order depending on climate

## Part 5: Grading

### Graded Course Activities

	Item	Points	Notes
Knowledge & Theory	Exam 1	100	
	Exam 2	100	
	Exam 3	100	
	Final exam	100	
	Unit Quizzes	60	3 quizzes at 20 pts
	PreLecture Quizzes	60	13 total, drop 1
	Discussion Worksheets	60	13 total, drop 1
Practical Application	Fruit and Vegetable ID Quiz	20	
	Landscape Plant ID Quiz	20	
	Seedling ID Quiz	20	
	Lab attendance/participation	26	14 total, drop 1
	PreLab Quizzes	39	14 total, drop 1
	Lab Practical- Individual	75	
	Lab Practical-Group	50	
Career & Skill Development	Lab report on herbaceous cuttings	20	
	Trade Journal Discussion	20	
	Scientific Journal Discussion	20	
	Plant Breeding Assignment	10	
	Practice Budget	10	
	Propagation Semester Project	25	
		<b>935</b>	<b>Total</b>

### Exams and Quizzes

- Exams and lab plant ID quizzes will be in person during class time.
- Four short lecture quizzes (10 pts each) will be online in D2L. These quizzes will be available on Monday/Tuesday on the specific dates listed above. You will have 10 minutes to complete each quiz and they will be available between 12:01 AM Monday until 11:59 PM Tuesday, however once you begin the quiz will close after 10 minutes. Quizzes are open book/open notes. Exams are written without notes.

### Plant Care and Maintenance

Each student will have some assigned greenhouse bench space to grow and maintain your plants throughout the semester. Your allocated bench space will be located in D101. You are responsible for keeping these plants watered during the week and on weekends (The greenhouse staff will take care of watering over Spring Break). Because of the uncertainty surrounding COVID, you will not be graded on how well you take care of your plants. However,

you have the opportunity to take advantage of this space to propagate and grow your plants. Plants may be taken home at the end of the semester.

### **Lab Attendance and Participation**

Students are expected to attend lab on time and participate. Attendance will be recorded. If you cannot attend a lab for whatever reason, just let the instructor know beforehand.

### **Lab Partners**

You may work with a lab partner to complete lab exercises, share in watering duties, etc. However, assignments are individual and each student is responsible for handing in their own work.

### **Late Work Policy**

All exams, quizzes, and assignments are due in class on the assigned due date. Late assignments will not be accepted unless the student makes arrangements with the instructor beforehand.

### **Grading Scale**

<b>Grade</b>	<b>Percentage</b>	<b>Minimum Points</b>
4	90-100	842
3.5	85-89	795
3	80-84	748
2.5	75-79	701
2	70-74	655
1.5	65-69	608
1	60-64	561
0	<60	≤491

## **Part 6: Course Policies**

### **Diversity Equity and Inclusiveness**

Diversity, Equity and Inclusion are important, interdependent components of everyday life in the College of Agriculture and Natural Resources (CANR) and are critical to our pursuit of academic excellence. Our aim is to foster a culture where every member of CANR feels valued, supported and inspired to achieve individual and common goals with an uncommon will. This includes providing opportunity and access for all people across differences of race, age, color, ethnicity, gender, sexual orientation, gender identity, gender expression, religion, national origin, migratory status, disability / abilities, political affiliation, veteran status and socioeconomic background. (See the full CANR statement: <https://www.canr.msu.edu/news/canr-statement-on-diversity-equity-and-inclusion>)

### **Commit to Integrity: Academic Honesty**

Article 2.3.3 of the [Academic Freedom Report](#) states that "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." In addition, the Department of Horticulture adheres to the policies on academic honesty as specified in General Student Regulations 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See [Spartan Life: Student Handbook and Resource Guide](#) and/or the MSU Web site: [www.msu.edu](http://www.msu.edu).)

Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the [www.allmsu.com](http://www.allmsu.com) web site to complete any course work in this course. Students who violate MSU academic integrity rules may receive a penalty grade, including a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. (See also the [Academic Integrity](#) webpage.)

### **Inform Your Instructor of Any Accommodations Needed**

From the Resource Center for Persons with Disabilities (RCPD): Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at [rcpd.msu.edu](http://rcpd.msu.edu). Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form. Please present this form to me at the start of the term and/or two weeks prior to the accommodation date (test, project, etc.). Requests received after this date may not be honored.

### **Resource Persons with Disabilities (RCPD)**

- To make an appointment with a specialist, contact: (517) 353-9642
- Or TTY: (517) 355-1293
- Web site for RCPD: <http://MYProfile.rcpd.msu.edu>

### **Drops and Adds**

Last day to add this course is 1/13/22. Last day to drop this course with refund is 2/3/22. Last day to drop this course with no grade reported is 3/1/22. You should immediately make a copy of your amended schedule to verify you have added or dropped this course.

## Part 7: General College and University Policies

All other general college and university policies applicable to this course are available at <https://www.canr.msu.edu/academics/courses/policies> . Please review these policies.

Topics covered in these general policies include:

- Students with disabilities, Resource Center for Persons with Disabilities (RCPD) and accommodations
- Student rights under the family educational rights and privacy act (FERPA)
  - Student release authorization form
- Religious holiday policies
- Grief absence policies
- Students in distress policies
- MSU student athlete policies
- Course add-drop policies
- Honors options
- Course Management system policies
- Final exam policy and attendance
- Grade dispute policies
- Academic honesty and integrity, plagiarism, and disciplinary procedures
- Disruptive behavior
- Harassment and discrimination policies
- RVSM University reporting protocols
- Limits to confidentiality
- Social media policy
- Web accessibility policies
- MSU Code of Teaching Responsibility
- Commercialization of lecture notes
- University Learning Goals