Course Number: OHT 219  
Course Title: Plant Propagation  
Credits: 3

Lecture Hours: Tuesdays 6-7:50 PM MS 116  
Laboratory Hours: Thursdays 6-7:50 PM Greenhouse HG 100  
Fall 2019

Catalog Description: Principles and techniques involved in the selection, propagation, and growth of garden flowers, greenhouse crops, woody plants, turfgrass, and plants for interior landscape.

Prerequisite: OHT 101 or permission of program coordinator

Required Text: *Plant Propagation: Principles and Practices*  
Authors: Hartmann, Kester, Davies and Geneve

Revision date: 8-30-19  
Course coordinator: Amy Ricco, 609-570-3372, riccoa@mccc.edu

Course Objectives:

1. To provide the students with knowledge on basic propagating structures, media and fertilization, and mist systems.
2. To acquaint the students with the principles of anatomy and physiology behind propagation techniques.
3. To provide the students with the techniques for both sexual and asexual propagation of woody and herbaceous material.
4. To gain valuable hands-on experience in the production of a crop through practice is seed, cutting, grafting, budding and layering.
5. To understand the principles of aseptic micropropagation.
6. To understand the importance of seed dormancy, the physical requirements of seeds, as well as the importance of cutting selection.

Behavioral Objectives:

1. Produce container grown crops under field conditions.
2. Design a shade structure and a mist system.
3. Apply the proper amount of fertilizer at the appropriate time.
4. Propagate woody and herbaceous plants from seeds.
5. Propagate woody and herbaceous plants from cuttings.
6. Be familiar with grafting, budding, and layering techniques.
7. Perform cultural requirements necessary in plant production.

Lecture Instructor: Ron Rabideau  
Office Number: HG-100 Greenhouse  
Phone Number: 609-570-3512  
E-Mail Address: rabidear@mccc.edu

Lab Instructor: Ron Rabideau  
Office Number: HG-100 Greenhouse  
Phone Number: 609-570-3512  
E-Mail: rabidear@mccc.edu
Grading: Grades are based on the following system.

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exam</td>
<td>150</td>
</tr>
<tr>
<td>Final Exam</td>
<td>150</td>
</tr>
<tr>
<td>Lecture Quizzes</td>
<td>100</td>
</tr>
<tr>
<td>Lab Notebook</td>
<td>300</td>
</tr>
<tr>
<td>Total</td>
<td>700</td>
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</tbody>
</table>

Mercer's Grading System:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100</td>
</tr>
<tr>
<td>A-</td>
<td>90-92</td>
</tr>
<tr>
<td>B+</td>
<td>87-89</td>
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<td>B</td>
<td>83-86</td>
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<td>C</td>
<td>70-76</td>
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<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>0-59</td>
</tr>
</tbody>
</table>

Explanation of the Points System:

Lecture Exams – The midterm exam will be given in lecture and is based on lecture material. The final exam is cumulative with an emphasis on the second half of the course. Exam dates are listed in the course outline.

We reserve the right to re-test you if a grade received is not consistent with your normal performance. You must show up on-time to take your exams. If you are late to class to take an exam, and one of your classmates has already finished the exam and left the room, you will not be allowed to take it. In case of an emergency, you must call within 24 hours of the exam and provide documentation in order to do a make-up.

Attendance Policy – Since this course covers an extensive amount of material over the semester, every Lab is important and therefore attendance is mandatory. Missing more than 2 labs is grounds for dismissal from the course and this includes field trips.

Importance of Logging Into BlackBoard

You are expected to log into BlackBoard several times throughout the week. You are also expected to check your Mercer email regularly for important notices. You will be expected to view each week’s lesson including the Power Point Presentations

Lecture Quizzes – Quizzes will be given in lecture each week and will cover material from the previous lecture. Each quiz is worth 10 points and will be given at the beginning of lecture. The lowest quiz grade will be dropped at the end of the semester. You will not be given extra time to complete the quiz if you show up late, and no make-up quizzes will be given.

Lab Notebook – A detailed lab notebook must be kept for the duration of the semester. This lab notebook should be a summary of the lab activities for each lab. You should include information specific to how you propagated plants during lab; conditions that propagated plants are kept under; success rate; conclusions made during lab; information given during lab; observations made between labs, etc. Your lab notebook must be turned in each week for a weekly review. Your lab notebook review is worth 20 points per week.

Points will be deducted from your lab report if…

- You show up late to lab = -10
- You show up to lab (including field trips) without proper foot wear = -10

Special Note*** You are responsible for stopping in and checking on your propagated plant material between labs and recording these observations as well. A lot can happen in a greenhouse during the course of a week, so you want to make sure you are keeping an eye on your projects in order to ensure their success.

Cell Phones – The ringer on your cell phone must be turned off during lab and lecture. If you are expecting an emergency phone call, please sit close to the door so you can excuse yourself without disturbance to the rest of the class. Text messaging is prohibited.
Lab Dress Code – You must wear sturdy shoes for lab. This means no open-toe shoes, sandals, flip-flops or slippers.

Behavior Statement – I encourage participation in my course. I enjoy you asking questions and sharing your experiences. I, however, will not tolerate any of the following behaviors in my course.

- Physical or verbal threatening behavior or derogatory remarks towards the instructor and/or fellow classmates.
- Using cell phones during class – this includes text messaging.
- Carrying on side conservations.
- One student dominating the course and preventing others from asking questions.

Statement of Academic Integrity:
“Any student who a) knowingly represents the work of others as his/her own. B) uses or obtains unauthorized assistance in the execution of any academic work, or c) gives fraudulent assistance to another student is guilty of cheating. Violators will be penalized in accordance with established college policies and procedures.” – If you are caught cheating in this course, you will receive a 0 for the assignment, and you will be turned in to the Academic Integrity Committee.

Other College Policies to be aware of...
- Smoking Policy
- Student ID Policy
- Parking Permit Policy

Statement from the Office of Special Services –
Mercer County Community College is committed to ensuring the full participation of all students in all activities, programs and services. If you have a documented differing ability or think that you may have a differing ability that is protected under the ADA and Section 504 of the Rehabilitation Act, please contact Arlene Stinson in LB 216 stinsona@mccc.edu for information regarding support services.

If you do not have a documented differing ability, remember that other resources are available to all students on campus including academic support through our Academic Learning Center located in LB 214.

Tentative Schedule:

Week 1: Lecture: Course Introduction; Introduction to Plant Propagation  
Lab: Writing Lab Reports; Using References; Propagation Materials Used; Misting Systems; Media; Sanitation; Hormones; How to Take Cuttings, etc.  
Chapter 1

Week 2: Lecture: Quiz #1; Biological and Environmental Aspects of Plant Propagation; Forcing  
Lab: Preparing Flats and Taking Cuttings  
Chapters 2 and 3

Week 3: Lecture: Quiz #2; Biological and Environmental Aspects of Plant Propagation Continued  
Lab: Sticking Cuttings, Hormones Used, Soil Used  
Chapters 2 and 3

Week 4: Lecture: Quiz #3; Propagation by Cuttings  
Lab: Field Trip  
Chapters 9 and 10

Week 5: Lecture: Quiz #4; Propagation by Cuttings Continued  
Lab: Field Trip  
Chapters 9 and 10

Week 6: Lecture: Quiz #5; Budding and Grafting  
Lab: Propagation Experience  
Chapters 11, 12 and 13

Week 7: Lecture: Quiz #6; Budding and Grafting Continued  
Lab: Propagation Experience  
Chapters 11, 12 and 13

Week 8: Lecture: Midterm Exam  
Lab: Propagation Experience  
No readings
Week 9:  
**Lecture:** Propagation by Seed  
**Lab:** Propagation Experience  
Chapters 4, 5, 6, 7 and 8

Week 10:  
**Lecture:** Quiz #7; Propagation by Seed Continued  
**Lab:** Propagation Experience  
Chapters 4, 5, 6, 7 and 8

Week 11:  
**Lecture:** Quiz #8; Micropropagation  
**Lab:** Propagation Experience  
Chapters 17 and 18

Week 12:  
**Lecture:** Quiz #9; Micropropagation Continued  
**Lab:** Propagation Experience  
Chapters 17 and 18

Week 13:  
**Lecture:** Quiz #10; Propagation through Layering; Biotechnology  
**Lab:** Propagation Experience  
Chapters 14, 15, and 16

Week 14:  
**Lecture:** Quiz #11; Catch-Up Lecture; Final Exam Review  
**Lab:** Lab Wrap-Up  
No Readings