Course Outline OHT 204 – Plant Diseases  
Revised Date – 9/2019

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>OHT 204</td>
<td>Plant Diseases</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Lecture Hours</th>
<th>Lab Hours</th>
<th>Course Length</th>
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<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>14 weeks</td>
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**Required Text**  
*Plant Pathology;* George N. Agrios

**Supplemental Materials**  
Blackboard

**Catalog Description**  
Introduction to the history, economic importance, symptoms, causal agents and management of plant diseases. Lab exercises include the isolation, culture, and identification of plant pathogens.

**Pre-requisites**  
OHT 101 or permission of the coordinator

**Course Objectives**

1. Acquaint the student with interactions between a variety of pathogens and their respective hosts.
2. Develop an understanding of the social impact that diseases have on mankind.
3. Understand the basic differences between fungi, bacteria and viruses along with the damage they cause.
4. Relate environmental conditions, proper sanitation, resistant varieties and pesticide spraying programs to disease control management.
5. Identify and become familiar with some of the most common and economically damaging diseases.

**Behavioral Objectives**

1. Identify a variety of signs and symptoms.
2. Isolate a pathogen in culture and re-inoculate this pathogen on a given host.
3. Recognize the pathogenic causal agents as well as diseases caused by environmental problems.
4. Develop lab techniques necessary in the isolation and culture of pathogens.
5. Demonstrate the proper use of compound and dissecting microscopes.

Course Coordinator and Instructor
Professor Amy Ricco
MS 124
609-570-3372
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Grading
Grades will be based on the following system

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points Range</th>
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<tbody>
<tr>
<td>Midterm Exam</td>
<td>150 points</td>
</tr>
<tr>
<td>Final Exam</td>
<td>150 points</td>
</tr>
<tr>
<td>Lecture Quizzes</td>
<td>100 points</td>
</tr>
<tr>
<td>Lab Reports</td>
<td>100 points</td>
</tr>
<tr>
<td>Lab Practical</td>
<td>100 points</td>
</tr>
<tr>
<td>Semester Project</td>
<td>100 points</td>
</tr>
<tr>
<td>Total</td>
<td>700 points</td>
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Mercer’s Grading System
A   93-100
A-  90 – 92
B+  87 – 89
B   83 – 86
B-  80 – 82
C+  77 – 79
C   70 – 76
D   60 – 69
F   0 – 59

Assessment Activities

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.

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.

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 Reports – Lab reports are due before you leave lab each week. You may work together in lab, however, each person must turn in a lab report form and is held accountable for the information. Each lab report is worth 10 points with the lowest grade being dropped at the end of the semester. You will be given the report form for the lab report at the beginning of each lab. If you show up late to lab, you will be given an immediate 1 point deduction. **Missing more than 2 labs over the semester will result in your dismissal from the course.**

Lab Practical – One lab practical will be given during the semester and is worth 100 points. This will require you to recall and demonstrate the lab/diagnostic skills that you have learned throughout the semester.

You must show up on time to take the lab practical. If you are late to class to take it, and one of your classmates has already finished 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 lab practical and provide documentation in order to do a make-up.

Semester Project – This is an open project that allows you to explore any topic within plant pathology that interests you. The guidelines given are that your project must be typed, presented, and turned in on time. Your project should be a minimum of 5 pages of text (12 pt. font, double spaced, 1” margins) and must include a bibliography. You cannot rely just on the internet as a resource! Please use articles and reference books in addition to the internet. The presentation that you make should be practiced ahead of time and should be approximately 5 minutes in length. You will lose 10 points if your project is not typed, 20 points if you do not present it, and an additional 5 points deducted for every day the project is late. If you are late to class the day of presentations, you will lose 1 point for every minute you are late. Your grade will be based on your project and the presentation. Remember that this project is worth 100 points so it should be taken very seriously!

Cell Phones – The ringer on your cell phones 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 foot wear to lab. This means no open-toe shoes, sandals or flip-flops. If you do not come dressed appropriately, you will not be able to do the lab that day and will receive a grade of “0”.
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 into the Academic Integrity Committee.

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

Mercer County Community College is committed to ensuring the full participation of all students in all activities and programs. If you have a documented differing ability or think that you may have a differing ability that is protected under the ADA or Section 504 of the Rehabilitation Act, please contact Arlene Stinson in LB216 {stinsona@mccc.edu} for information regarding academic accommodations and additional support services.

Tentative Schedule

**Week #1:**
Lecture: Introduction to Plant Diseases
Lab: Course Introductions and Course Outline; Microscope and Material Usage
Readings: Chapter 1

**Week #2:**
Lecture: Introduction to Plant Diseases Continued (Quiz #1)
Lab: Diagnostic Basics – Scavenger Hunt (Lab Report #1)
Readings: Chapter 2

**Week #3:**
Lecture: Fungal Diseases (Quiz #2)
Lab: Diagnosing Fungal Diseases Using Sectioning and PDA (Lab Report #2)
Readings: Chapter 11

**Week #4:**
Lecture: Rust Diseases (Quiz #3)
Lab: Diagnosing Fungal Diseases Using Sectioning and PDA (Lab Report #3)
Readings: Chapter 11
Week #5: 
**Lecture:** Bacterial Diseases (Quiz #4)
**Lab:** Diagnosing Bacterial Diseases Using Streaming and NA (Lab Report #4)
**Readings:** Chapter 12

Week #6: 
**Lecture:** Viral Diseases (Quiz #5)
**Lab:** Koch’s Postulates and Inoculations (Lab Report #5)
**Readings:** Chapter 14

Week #7: 
**Lecture:** Non-Infectious/Abiotic Diseases (Quiz #6)
**Lab:** Diagnosing Landscape Problems (Lab Report #6)
**Readings:** Chapter 10

Week #8: 
**Lecture:** Midterm Exam
**Lab:** Diagnosing Landscape Problems (Lab Report #7)
**Readings:** None

Week #9: 
**Lecture:** Common Turf Grass Diseases
**Lab:** Diagnosing Turf Grass Diseases (Lab Report #8)
**Readings:** Chapter 7

Week #10: 
**Lecture:** Diseases of Food Products (Quiz #7)
**Lab:** Fruit Bowl (Lab Report #9)
**Readings:** Chapter 9

Week #11: 
**Lecture:** Soil Borne Pathogens (Quiz #8)
**Lab:** Lab Practical
**Readings:** Chapter 15

Week #12: 
**Lecture:** Insects: Vectoring Disease and Causing “Disease Like” Damage (Quiz #9)
**Lab:** Identifying Insects (Lab Report #10)
**Readings:** Pick a Chapter

Week #13: 
**Lecture:** Disorders of Houseplants (Quiz #10)
**Lab:** Diagnosing Disorders of Houseplants (Lab Report #11)
**Readings:** Pick a Chapter

Week #14: 
**Lecture:** Project Presentations (Quiz #11)
**Lab:** Project Presentations (Lab Report #12)
**Readings:** Pick a Chapter

Final Exam Date TBD