OHT 204 Course Outline
Fall 2021

Course Number	Course Title	Credits
OHT 204	Plant Diseases	3

Lecture Hours	Lab Hours	Course Length
2	2	14 weeks

Recommended Text
Plant Pathology; George N. Agrios

Supplemental Materials
Blackboard
Zoom

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
riccoa@mccc.edu

Grading

Grades will be based on the following system

Midterm Exam	100 points
Final Exam	100 points
Lecture Quizzes	100 points
Lab Reports	100 points
Lab Practical	100 points
Semester Project	100 points
Total	600 points (estimated)

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

Exams – Exams are based on lecture material, and the final exam is cumulative. The plan is to have these exams in person during our lab time, but if those plans need to change due to COVID-19, we will move them to a remote platform.

Lecture Quizzes – Quizzes will be given during our remote lecture time each week and will cover material from the previous lecture. Each quiz is worth 10 points and the lowest quiz grade will be dropped at the end of the semester.

Lab Practical – One lab practical will be given during the semester. This will require you to demonstrate your ability to diagnose plant disease and describe the tools and techniques used during the process. The plan is to have this exam in person during lab,

but if those plans need to change due to COVID-19, we will move the lab practical to a remote platform.

Attendance – Attendance will be taken in lecture and lab each meeting. Your attendance in both lecture and lab is directly correlated to your success in the course.

Lab Reports – Whether you are performing labs remotely or in person, you will have periodic lab reports due throughout the semester. Each lab report is worth between 10 and 20 points.

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 take very seriously!

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".

Blackboard – All lectures, assignments, and quizzes will be available for you on Blackboard.

Zoom – All remote meetings will take place via Zoom. A link for these reoccurring meetings will be provided for you via BlackBoard.

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.

Accessibility

Mercer County Community College recognizes disability as an aspect of diversity. This class has been designed to meet the diverse needs of all learners. Please feel free to schedule an appointment with me to discuss your unique learning needs.
If you feel that you will require academic accommodations, please contact Arlene Stinson stinsona@mccc.edu or
visit https://www.mccc.edu/student_services_needs.shtml for information about obtaining academic accommodations in the remote environment.

Mercer County Community College is in full compliance with both the ADA and section 504 of the Rehabilitation Act.

Tentative Schedule

Week #1: Lecture: Introduction to Plant Diseases
Lab: Course Introductions and Course Outline; COVID and Impacts on the Semester; Microscope and Material Usage
Readings: Chapter 1

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

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

Week #4: Lecture: Rust Diseases (Quiz #3)
Lab: Diagnosing Fungal Diseases Using Sectioning and PDA
Readings: Chapter 11

Week #5: Lecture: Bacterial Diseases (Quiz #4)
Lab: Diagnosing Bacterial Diseases Using Streaming and NA
Readings: Chapter 12

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

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

Week #8: Midterm Exam

Week #9: Lecture: Common Turf Grass Diseases
Lab: Diagnosing Turf Grass Diseases
Readings: Chapter 7

Week # 10: Lecture: Diseases of Food Products (Quiz #7)
Lab: Fruit Bowl
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
Readings: Pick a Chapter

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

Week #14: Lecture: Project Presentations
Lab: Final Exam