PP558 – Biology of Pathogens – 3 credits
Meets Mondays and Wednesdays from 1:00 – 4:00 in Rm 187 Russell Labs

Instructors
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Course Description
This course is designed for graduate students interested in laboratory aspects of plant pathology, specifically pathogen detection and development of bioassays to better understand pathogenicity and to screen plant material for reactions to pathogens of importance. The knowledge and skills learned in this course will aid students interested in a career in plant pathology that involves plant disease diagnosis or plant disease management.

This three credit course is required for Plant Pathology PhD students and fulfills the advanced plant pathology requirement for undergraduates. It can also be used as an "Area E" course by Biology Majors. Pre-requisites include completion of Bot 151/152, Bot 101/102 and 130 or equivalent course work in introductory biology and PP300.

Course Organization
This course is mainly a hands-on laboratory course. There is no required textbook for this course. Assigned readings will be provided by the instructors. Students should all have a bound book that can be used as a laboratory book to record observations made during class experiments.

Course Objectives
By the end of this course you will:

1. Be familiar with methods commonly used for detecting and identifying plant pathogens
2. Be able to screen plants for their responses to common plant pathogens, including culturing, inoculations, and disease ratings
3. Be able to conduct bioassays with viral, bacterial, eukaryotic pathogens of plants.
4. Become more familiar with how this information is used to manage plant diseases.

Study Expectations
Students are expected to actively participate in class. This includes:

Developing hypotheses and testing them
Culturing and carefully observing microbes and plants used in the class
Reading assigned papers
Asking and answering questions in class discussions
Using critical thinking skills in written assignments and exams

Students are expected to attend all classes. Attendance will be taken and will contribute to your final grade. Because the lab materials prepared for this class take several weeks to grow, lab materials prepared for each day of class will not be available at other times.

Students are expected to be respectful during class. This includes:

Turning off cell phones
Paying attention to and participating respectfully in the class discussion
Being on time and staying for the entire class period. If you must leave early, notify the instructor ahead of time.

Academic Policies

We will be following UW academic policies and expect students to demonstrate honesty and academic integrity. We expect that the work you submit will be your own work and will not be plagiarized. Cheating or plagiarism will result in a zero for that assignment and a record of misconduct on filed with the dean of students. If you have questions on how to properly attribute information to previously published sources, please ask an instructor for help.

Some information on these policies can be found here:
http://pubs.wisc.edu/ug/geninfo_rules.htm
http://writing.wisc.edu/Handbook/QPA_plagiarism.html

Special Needs

We intend to fully include all students in this course. If you need accommodations to fully participate, please let the instructors know as soon as possible so that we can enable your participation. We will maintain confidentiality.

Grading

The course will be graded in 4 modules, with one quarter of your grade calculated from each portion of the course. These modules include:

1. Nematodes (MacGuidwin)
2. Fungi & Oomycetes, (Hudelson)
3. Bacteria (Charkowski)
4. Viruses (Charkowski)