

GENERAL PLANT PATHOLOGY
PLPA 3000
Spring 2012

Instructor: Dr. Kathy S. Lawrence
Office: 227 Life Sciences
Lab: 231 Life Sciences
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Office Hours: 8:00-10:00 MW
or by appointment

Lab Assistants: Drew Schrimsher – schridw@tigermail.auburn.edu
Luisa Cruz – lfc0005@tigermail.auburn.edu

Lecture : 10:00 - 10:50 MWF
Lab: 1:00 - 2:50; or 3:00 - 4:50 W

Room : 336 Funchess
114 Life Science

Textbook : Plant Pathology 5th ed, George N. Agrios, Academic Press

Lab Materials: Will be available on blackboard or canvas.

Course objective: To gain an appreciation of general Plant Pathology. Plant pathology is the study of: living and non-living entities which incite plant diseases; mechanisms and environmental conditions which stimulate plant disease; interactions between the disease causing agents; and methods of preventing, managing, or alleviating the damage of plant disease.

Grading System: There will be *approximately* 630 points. Letter grades will be based on percentages. So the grading scale is ***approximately:***

A = 90 - 100%	> 567 points
B = 80 - 89%	566 - 504 points
C = 70 - 79%	503 - 441 points
D = 60 - 69%	440 - 378 points
F = 0 - 59%	< 377 points

Lecture (*approximately* 500 points)

Exam 1 100 points
Exam 2 100 points
Exam 3 100 points
Exam 4 100 points
Final Exam 100 points
Pop quizzes- extra points

Lab (*approximately* 230 points)

Weekly lab reports 100 points
Weekly lab quizzes 50 points
Koch's Postulates 20 points
Oral presentation 20 points
Mid term practical 20 points
Final practical 20 points

Attendance: Attendance is required for the laboratory. One make-up laboratory session will be offered at the end of the semester. If an exam or lab is missed, a written excuse should be presented to the instructor within 24 hours of the absence. Lab reports will be emailed to your lab instructor. Deadlines will be organized and discussed in each lab.

Make-up Examinations:

A make-up exam will only be given with a valid university excuse. This means a Doctor's statement (not an In-Out slip) or other documentation must be provided. All make-ups will be given during class time on the Friday following the exam unless other arrangements are made

with the instructor. The learner is responsible for informing the instructor prior to missing the examination or no later than one class session after the examination's official date.

Learners with Disabilities:

Auburn University is committed to providing accommodations and services to students with documented disabilities. Any learner with a qualified disability which requires accommodations should contact The Program for Students with Disabilities, 1244 Haley Center, Auburn University, AL 36849, 334-844-2096 PH, 334-844-2099 FAX, haynemd@auburn.edu. More information is available on their website at www.auburn.edu/disability. The office will fax or mail the required forms to learners to apply for services. Learners who have questions to participate in this course should contact the above office in advance to ensure proper accommodations.

Plagiarism and Academic Dishonesty:

Plagiarism is the act of presenting directly or indirectly someone else's work as your own. Plagiarism is a major type of academic dishonesty and will not be tolerated. Similarly cheating on tests in any way, falsifying bibliographies, fraudulent quotes, and similar practices are intolerable forms of academic dishonesty. The University's policy for academic misconduct in the Student Code of Conduct will be followed for this course. Please contact the instructor for any questions regarding its contents.

<u>Week</u>	<u>Topic</u>
1	Syllabus - Introduction to Plant Pathology and History; Concepts and Definitions
2	Definitions, Development of Plant Disease, Chemical weapons of pathogens
3	Chemical weapons, Effect of pathogens on plants, Plant defenses
3-4	Exam 1 – Intro, terms, concepts, disease expansion & plant defenses
4	Introduction to Fungi
5	Disease cycles of lower fungi; Oomycetes
6	Disease cycles of lower fungi; Zygomycetes
7	Ascomycetes and associated Deuteromycetes
7-8	Exam 2 - Zygomycetes, Oomycetes, Deuteromycetes, Ascomycetes
8	Basidiomycetes
9	Plant diseases caused by viruses
10	Spring Break
11	Plant parasitic nematodes diseases
12	Plant diseases caused by bacteria
12-13	Exam 3 - Basidiomycetes, bacteria, viruses, and nematodes
13	Parasitic Plants
14	Post-Harvest Diseases
15	Plant disease diagnosis and control
16	Epidemiology
17	Exam 4- Parasitic plants, post-harvest disease, epidemiology, diagnosis and control

Thursday, May 3 8:00 a.m. - 10:30 a.m. Final exam - Comprehensive

PLPA 3000**Lab Schedule**

January 11	Introduction Cover guidelines for weekly quizzes
January 18	Lab 1 Use and Care of the Light Microscope on the laboratory
January 25	Lab 2 Sterile Technique - Isolation of Fungi and Bacteria Recognition and Terminology of Disease Symptoms and Signs
February 1	Lab 3 - Damping off of Seeds and Seedlings Set up Koch's Postulates Inoculate
February 8	Lab 4 Characteristics and Structures of Fungi Results of Damping off Continue Koch's Postulates Re-isolate
February 15	Lab 5 Plant Disease Ratings Continue Koch's Postulates Inoculate
February 22	Lab 6 Dissemination of fungal spores and bacterial cells by wind and water Complete Koch's Postulates Review for mid term
February 29	Lab 7 Mid term lab practical
March 7	Lab 8 Basidiomycetes – Rusts and Smuts <i>Koch's Postulates - Report due</i>
March 14	Spring Break
March 21	Lab 9 Mechanical Transmission of Plant Viral Diseases Signs and symptoms of viral diseases
March 28	Lab 10 Study of Plant Parasitic Nematodes Signs and symptoms of nematode diseases Student oral reports
April 4	Lab 11 Bacterial Pathogens and Crown Gall Signs and symptoms of bacterial diseases Student oral reports
April 11	Lab 12 Abiotic Diseases Student oral reports
April 18	Lab 13 Diagnostic Lab – Id pathogens of symptomatic plants Student oral reports
April 25	Lab 14 Final lab practical

