GENERAL PLANT PATHOLOGY  
PLPA 3000  
Spring 2012

Instructor: Dr. Kathy S. Lawrence  
Office: 227 Life Sciences  
Lab: 231 Life Sciences  
Phone: 844-1956  
lawrekk@auburn.edu

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  
Room : 336 Funchess

Lab: 1:00 - 2:50; or 3:00 - 4:50 W  
114 Life Science


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)  
Lab (approximately 230 points)
- Exam 1 100 points  
- Weekly lab reports 100 points
- Exam 2 100 points  
- Weekly lab quizzes 50 points
- Exam 3 100 points  
- Koch’s Postulates 20 points
- Exam 4 100 points  
- Oral presentation 20 points
- Final Exam 100 points  
- Mid term practical 20 points
- Pop quizzes- extra 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](http://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.
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<tr>
<th>Week</th>
<th>Topic</th>
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<tr>
<td>1</td>
<td>Syllabus - Introduction to Plant Pathology and History; Concepts and Definitions</td>
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<tr>
<td>2</td>
<td>Definitions, Development of Plant Disease, Chemical weapons of pathogens</td>
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<td>3</td>
<td>Chemical weapons, Effect of pathogens on plants, Plant defenses</td>
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<td>3-4</td>
<td><strong>Exam 1 – Intro, terms, concepts, disease expansion &amp; plant defenses</strong></td>
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<td>4</td>
<td>Introduction to Fungi</td>
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<td>5</td>
<td>Disease cycles of lower fungi; Oomycetes</td>
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<td>6</td>
<td>Disease cycles of lower fungi; Zygomycetes</td>
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<td>7</td>
<td>Ascomycetes and associated Deuteromycetes</td>
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<td>7-8</td>
<td><strong>Exam 2 - Zygomycetes, Oomycetes, Deuteromycetes, Ascomycetes</strong></td>
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<td>8</td>
<td>Basidiomycetes</td>
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<td>9</td>
<td>Plant diseases caused by viruses</td>
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<td>10</td>
<td>Spring Break</td>
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<td>11</td>
<td>Plant parasitic nematodes diseases</td>
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<td>12</td>
<td>Plant diseases caused by bacteria</td>
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<td>12-13</td>
<td><strong>Exam 3 - Basidiomycetes, bacteria, viruses, and nematodes</strong></td>
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<td>13</td>
<td>Parasitic Plants</td>
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<td>14</td>
<td>Post-Harvest Diseases</td>
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<td>15</td>
<td>Plant disease diagnosis and control</td>
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<td>16</td>
<td>Epidemiology</td>
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<td>17</td>
<td><strong>Exam 4- Parasitic plants, post-harvest disease, epidemiology, diagnosis and control</strong></td>
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**Thursday, May 3  8:00 a.m. - 10:30 a.m. Final exam - Comprehensive**
<table>
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<tr>
<th>Date</th>
<th>Lab Schedule</th>
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| 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
               *Koch’s Postulates - Report due*                                             |
| 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                                               |