PLPA 3010: Biology and Management of Plant Diseases– Fall 2012

Lecture: 11:15-12:05 MWF 135B Plant Science Bldg.
Lab: 1:30-4:30 Tues. or Wed. 326 Plant Science Bldg.

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Office hours: Thursday 3-4:30 pm, or by appt.(303B or 331 PSB)

Textbook: *Plant Pathology 5th Edition* (2005), G. N. Agrios, Academic Press. Readings are identified in the syllabus. Everyone is expected to read the “general sections”. Students are also expected to read about and be familiar with the individual pathogens presented in lecture.

We will also discuss some primary and secondary literature. Students will be introduced to important topics in these discussions. These papers illustrate important concepts and information in these resources will be considered in constructing exams. These resources will be available via Blackboard. Discussions will center around your questions/comments (to be submitted prior to the discussion). Please remember to write your name on the paper with your question.

Course website: The website for this course is via Blackboard (http://blackboard.cornell.edu/). Check this site often for announcements, assignments, additional reading, etc.

Course Goals: Students gain sufficient background/understanding of the biology of plant pathogens and plant diseases to develop and justify the rationale for disease management recommendations, and to continue in advanced studies in plant pathology.

Requirements/Evaluations: Achievement of the course goals will be assessed in several ways:
1. Two prelims will be given, covering material from lecture, assigned readings and lab. The second prelim will assume an understanding of the topics included in the first prelim. The prelims will be given in class time and are scheduled for 26 September and 5 November.

2. The final exam (Friday 7 Dec, 2:00 pm), will be comprehensive, but will emphasize topics presented during the final part of the course.

3. Discussions give you a chance to apply concepts and knowledge to specific problems. Discussions will occur during lecture and are based on specific readings in the primary and secondary literature. Each student is expected to participate in the discussion. Each student is expected to contribute a question or comment (in writing) based on the reading. The question or comment will be received prior to the discussion.

4. Term paper. There are two options: i) to construct a disease management program for a specific crop or ii) to review the current state of knowledge on a plant pathology topic agreed upon by the instructor, and to propose an experimental approach to answer a question concerning this topic. Most students will select option i), because this option enables each student to illustrate his/her grasp of the subject of the course, and to demonstrate that he/she has achieved the goals of the course. There are three deadlines: 5 October (selection of topic); 12 November (part A); 30 November (completed paper).
5. **Laboratory.** Attendance in lab is required. Please discuss unavoidable absences with the lab instructor prior to the lab period. Make-up of the labs is generally difficult because of the ephemeral nature of the biological materials. Participation in discussions during lecture and lab periods is expected. There will be short quizzes periodically in the lab.

**Grading:** The final grade for the course will be determined using the following weightings:

- Prelims 34%
- Final  21%
- Lecture Homework/discussions  5%
- Term paper  20%
- Lab  20%