

## PLP 6241C and PLP 4242C Bacterial Plant Pathogens

Spring Semester, 2016

Instructors: J. B. Jones and F. F. White

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**Catalog statement:** Three credits. Prerequisite PLP 3002, MCB 3020, or equivalent. Relationships of bacterial plant pathogens and interactions with their hosts.

**Class meetings:** Lectures will be held in Fifield Hall Rm. 2306 and labs will be held in Fifield Hall Rm. 2306. Lectures will be Monday, Wednesday and Friday 5<sup>th</sup> period. Labs will be held Tuesdays and Thursdays 5<sup>th</sup> and 6<sup>th</sup> period. Paper discussion Wednesdays 6<sup>th</sup> period or Tuesday depending on available time. Students are required to attend to Plant Pathology regular seminars on Jan. 26<sup>th</sup> and Feb. 9 as the seminars are relevant to course. The material will be covered on exams.

**Course objectives:** A survey of phytobacteriology focuses on familiarizing students with basic bacteriology including structure and function, characteristics of the common phytopathogenic bacterial genera, procedures for identification of phytopathogenic bacteria, factors involved in host-parasite interactions (susceptible and hypersensitive reactions), and strategies used to control phytopathogenic bacteria.

### Suggested References:

Laboratory guide for the identification of plant pathogenic bacteria (Third Edition. Schaad, Jones and Chun, APS Press) is not required for this course although it is useful to those interested in bacterial identification. It should be useful to DPM students and others interested in bacterial identification.

Phytobacteriology: Principles and Practices by J. D. Janse (CABI Publishing) is a good general reference for students.

Another good reference is Plant Bacteriology by Clarence I. Kado (APS Press).

### Laboratory

**All students** are required to take all the scheduled laboratories. ***The students will keep a lab notebook and describe their observations for each lab.*** Throughout scheduled laboratories each student will work with a plant-associated bacterium provided in laboratory 1 and will need to identify the organism to genus and if possible to species. This will be accomplished throughout the course and will require some extra time outside of the laboratory period. Each student will write a disease note relating to one of their

isolations in the first lab. The students will describe the diseases and the steps used for accurate diagnosis. (see instructions: [http://apsjournals.apsnet.org/userimages/ContentEditor/1236780011229/pd\\_author\\_instructions.pdf](http://apsjournals.apsnet.org/userimages/ContentEditor/1236780011229/pd_author_instructions.pdf))

There will also be a one hour journal club during the last hour of the lab on Tuesdays. It will be conducted as follows. All will participate in the journal club in which two papers will be discussed each week. The instructor will select the papers for discussion. Two graduate students will be responsible for preparing a PowerPoint for each paper and then all students will be asked to discuss parts of the paper. **It is imperative that all graduate students participate in discussions. We will also include questions from each paper on exams; therefore, each presentation should have a summary which includes 2-3 take-home messages. You will be required to meet with the instructor at least 1 day prior to the presentation to go over your presentation.**

**Grading:** Three tests, including the final, will be given during the semester. Exams will constitute equal portions and account for 75% of the final grade. The laboratory and journal club will count for 25% (5% for disease note) and 5% of the grade, respectively. Five maximum extra credit points will be available on final exam for disease-pathogen association list. For undergraduates the same requirements but they do not need to prepare a powerpoint and are not required to discuss the papers.

|               |           |
|---------------|-----------|
| Laboratory    | 25        |
| Disease note  | 5         |
| Journal disc. | 5         |
| Exam 1        | 20        |
| Exam 2        | 20        |
| Final         | <u>25</u> |
|               | 100       |

**Grading scale** is 94-100 A; 90-93 A-; 87-89 B+; 84-86 B; 80-83 B-; 77-79 C+; 74-76 C; 70-73 C-; 67-69 D+; 64-66 D; 60-63 D- .

**Office hours:** Dr. Jones's office is located in Fifield Hall, Room 2553; Dr. White's 1443, [ffwhite@ufl.edu](mailto:ffwhite@ufl.edu). If you have questions please call (273-4673) to make an appointment or stop by my office. I am usually available to answer questions.

**THE FOLLOWING STATEMENTS ARE INCLUDED AT THE REQUEST OF THE COLLEGE OF AGRICULTURE:**

Students requesting classroom accommodations must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodations.

**ACADEMIC HONESTY:** As a result of completing the registration form at the University of Florida, every student has signed the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University." We agree to comply with the new Honor Code, which specifies that "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."

**Software Use:** All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.