

PLHL 7083, EPIDEMIOLOGY AND CROP LOSS ASSESSMENT
COURSE SYLLABUS
SPRING, 2014

COURSE DESCRIPTION: Interactions between pathogen and host populations and the environment; description and prediction of disease increase in space and time; implications for disease management; and techniques to assess losses due to plant diseases.

OBJECTIVES:

To become familiar with pathogen, host, and environmental factors affecting plant disease at the population level.

To become familiar with theories and approaches used to describe and analyze disease.

To apply learned concepts to disease prediction, developing management strategies, and crop loss estimation.

To gain a more comprehensive understanding of plant disease.

INSTRUCTOR:

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TEXTS: *The Study of Plant Disease Epidemics*. 2007. L.V. Madden, G. Hughes, and F. van den Bosch, authors, APS Press; and *Introduction to Plant Disease Epidemiology*. 1990. C.L. Cambell and L.V. Madden, authors, John Wiley and Sons. Copies of the texts will be made available. In addition, lecture outlines will be provided.

ASSIGNMENTS: Reading assignments in the texts will be specified as the course progresses. Additional assignments of supplemental reading will be made available in photocopy form. Research papers that illustrate the application of concepts from course subject areas also will be assigned, and students will lead the discussion in class. Students will select a plant disease, review the literature, and present the disease to the class as an epidemiological case study.

EXAMS: Two mid-term exams and a comprehensive final exam will consist of short answer essays and problems. A fixed grading scale will not be used. The exams will evaluate knowledge and understanding of information contained in lectures and assigned readings.

EVALUATION: Grade assignments will be determined as follows: 10% case study and class participation and 30% for each of the three exams.