

Section on Plant Pathogenic Fungi and Oomycetes, Spring 2007

The next 10 lectures will examine the taxonomy, biology, genetics, and genomics of plant pathogenic fungi and oomycetes.

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GRADES. Grades for this section will be assigned based on scores from one final exam (70% of the final grade), one Powerpoint presentation (15% of the final grade), and one laboratory notebook (15% of the final grade).

Lecture 1	W	April	11	Introducing the Fungi
Lecture 2	F	April	13	Fungal plant pathogens I: Chytridiomycota, Zygomycota, & Deuteromycota
Lab #1				Isolation of <i>Fusarium</i> spp. from soil using a selective medium Identification of Deuteromycetes (Baudoin)
Lecture 3	M	April	16	Fungal plant pathogens II: Ascomycota
Lecture 4	W	April	18	Fungal plant pathogens III: Basidiomycota
Lecture 5	F	April	20	Fungal pathogenesis
Lab #2			20	Oomycota (Bush)
Lecture 6	M	April	23	Mycotoxins
Lecture 7	W	April	25	Oomycota (Tyler)
Lecture 8	F	April	27	Aerobiology and plant disease forecasting
Lab #3				Powdery mildews Infection structures (Baudoin)
Lecture 9	M	April	30	Fungal genomics
Lecture 10	W	May	2	Individual Powerpoint presentations on fungal plant pathogens
Final Exam	F	May	4	Final Exam (10:05-12:05)

POWERPOINT PRESENTATIONS. Each student will be assigned one of the following plant pathogenic fungi or oomycetes:

- *Tilletia indica*, causal agent of karnal bunt of wheat
- *Fusarium mangiferae*, causal agent of mango malformation
- *Phytophthora ramorum*, causal agent of sudden oak death
- *Puccinia sorghi*, causal agent of common rust of sweet corn
- *Colletotrichum orbiculare*, causal agent of anthracnose of cucurbits
- *Phialophora gregata*, causal agent of brown stem rot of soybean
- *Puccinia asparagi*, causal agent of asparagus rust

Grades will be based on a 5-minute Powerpoint presentation containing the following FIVE slides: (1) pathogen classification and host range, (2) symptoms and signs of the disease, (3) pathogen biology and genetics, (4) disease management, and (5) significance and impact. Talks will be presented during class on Wednesday, May 2nd. Material from each of the presentations will be on the final exam.