

**Forest Pathology
Forestry 313**

Spring 2008

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Office Hours: M: 8:15 – 9:15 am, 1:30 – 4:30 pm, T: 9:00 – 11:00 am, 1:30 – 4:30 pm, W: 8:15 – 9:15 am. Please feel free to make an appointment if these hours are not suitable for consultation.

Course Goals: Students will become knowledgeable about pathogens and environmental processes that affect trees and forests, including urban forests. Processes and organisms that affect the value of forest products also will be examined. Management strategies to reduce impact on forest resources will be emphasized.

Resources:

- Online textbook: **Forest and Shade Tree Pathology**, www.forestpathology.org, published by College of Environmental Science and Forestry, State University of New York.
- **Insects and Diseases of Trees in the South.** USDA Forest Service. Southern Region. Protection Report R8-PR 16. 1997.
- **Forest Pests of North America**, www.forestpests.org University of Georgia, Warnell School of Forest Resources and College of Agricultural and Environmental Sciences – Department of Entomology.
- Other readings as assigned

Grading: Exam 1: 100 points
Exam 2: 100 points
Exam 3 (comprehensive) 100 points
Quizzes and assignments: 100 points

Total Available Points- 400	% available points earned	Grade
	90+	A
	80-89	B
	70-79	C
	60-69	D
	<60	F

Exam dates: Any change in exam dates will be announced at least one week in advance. Exam 1-March 31, Exam 2 April 21, Exam 3-May 12.

Exam, quiz and assignment policies: Exams, short quizzes and homework assignments may be given in both lecture and lab. Missed exams or quizzes should be made up within two class days unless a compelling reason exists for making an exception. Late quizzes or exams are subject to presentation in alternate format and/or 10% penalty if unexcused. Late homework assignments are penalized at the rate of 10% of available points

Exceptions to the above exam, quiz and assignment policies will be made under reasonable circumstances such as documented illness, family emergency or official University excused absence.

It is the student's responsibility to contact me (preferably in advance) to make arrangements in all cases described above.

Attendance: Regular attendance is required to get the most out of the course. Class attendance records will be kept for both lecture and laboratory sessions. Students are responsible for everything discussed, demonstrated or assigned in lecture and laboratory whether or not they are present.

Disability Accommodation: Students needing testing or classroom accommodations based on a disability are encouraged to discuss those needs with me as soon as possible. Please visit the Office of Disability Services for more information, or visit the web page www.latech.edu/ods.

Academic Integrity: In accordance with the Academic Honor Code (www.latech.edu/tech/students/honor-code.pdf), students pledge the following: "Being a student of higher standards, I pledge to embody the principles of academic integrity."

Other Policies: All University policies and regulations apply. During lecture and lab, electronic devices such as laptop computers, cell phones, pagers, wristwatch alarms etc. must be off or muted. Students should come to laboratory meetings suitably dressed for outdoor conditions commonly encountered in the forestry profession, such as mud, briars, logging debris, steep unimproved terrain etc.

General Course Outline

- I. Introduction to tree disease
 - A. Ecological overview
 - B. Basic terminology
 - C. Symptoms/signs
 - D. Tree modules affected
 - E. Disease types (abiotic, biotic, decline)

- II. Disease sources
 - A. Soil (mechanical, chemical-nutrient)
 - B. Weather
 - C. Anthropogenic (pollution, mechanical)
 - D. Nematodes
 - E. Viruses
 - F. Bacteria
 - G. Parasitic plants
 - H. Fungi

- III. Fungi
 - A. Most important pathogens
 - B. Role in forest ecosystems (saprobes, symbionts, parasites)
 - C. Characteristics (general), terminology
 - D. Life cycles and taxonomy
 - E. Disease processes and types

- IV. Root diseases
 - A. Types
 - B. Disease life cycles
 - C. General signs and symptoms
 - D. Important root diseases (life cycles, diagnosis/identification, control/management, and significant case histories)

- V. Foliar diseases
 - A. Types
 - B. Disease life cycles
 - C. General signs and symptoms
 - D. Important foliar diseases (life cycles, diagnosis/identification, control/management, and significant case histories)

- VI. Rusts
 - A. Types
 - B. Disease life cycles
 - C. General signs and symptoms
 - D. Important rust diseases (life cycles, diagnosis/identification, control/management, and significant case histories)

- VII. Cankers
 - A. Types
 - B. Disease cycles
 - C. General signs and symptoms
 - D. Important canker diseases (life cycles, diagnosis/identification, control/management, and significant case histories)

- VIII. Vascular Wilts
 - A. Types
 - B. Disease cycles
 - C. General signs and symptoms
 - D. Important vascular wilt diseases (life cycles, diagnosis/identification, control/management, and significant case histories)

- IX. Wood decaying diseases (forest and product)
 - A. Types
 - B. Disease cycles
 - C. General signs and symptoms
 - D. Important wood rotting pathogens and diseases (life cycles, diagnosis/identification, control/management, and significant case histories)