

FORS 4210: Forest Health and Protection - 2006 Spring Semester Syllabus

*The course syllabus is a general plan for the course;
deviations announced to the class by the instructors may be necessary.*

Instructors

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If you would like to meet with any of the course's instructors outside of class, please make an appointment to do so via email, or in-person after class.

Class Time

Lectures: 12:20 pm – 1:10 pm Mon. & Wed. room 1-209 Forest Resources
Students are responsible for all material covered in lectures and should keep notes.

Labs: 12:20 pm – 2:15 pm Fri. room depending on date:
1/13/06 – 2/17/06 - in room 242 Poultry Sciences
2/24/06 – 4/28/06 - in room 1-101 Forest Resources

Most labs will illustrate material or concepts from previous lectures, but some lab periods will also introduce additional assignments or new information. Students will be given an opportunity to take notes as needed.

Prerequisites

(BIOL 1104 and BIOL 1104L) or (BIOL 1108-1108L) or (PBIO 1210 and PBIO 1210L) or (PBIO 1220 and PBIO 1220L)

Course Description

This course will cover major insect and disease problems of forests, with an emphasis on their recognition and management. It will also cover forest fire prevention, detection, suppression and management.

Course Objectives

Students will:

1. Understand basic forest health concepts, such as the characteristics of a healthy forest and the possible causes of forest health problems.
2. Be able to identify the likely cause of a given forest health problem.
3. Understand the basics of forest entomology and insect management.
4. Understand the basics of forest pathology and disease management.
5. Understand how to prevent, detect, suppress, and manage wildland fire.
6. Understand the interactions of insects, diseases, and wildland fire.

Required Textbook

“Forest Health and Protection” by Edmonds, Agee and Gara, Waveland Press, Inc. ISBN 1-57766-396-9. Available at the University Bookstore. Reading assignments from the text are listed in the course schedule. These should be completed before coming to class on the assigned date.

Assignments

1. Finding Useful Forest Health Information On-line

Search the www for sites providing information on forest health (i.e. some aspect of forest entomology, fire, or pathology). Write a brief description of two that you judge to be informative (include the title of each page). Email the URLs for the sites and your descriptions of them to Dr. Covert by Friday January 20th. She will collate the results and distribute them to the class so that you may use them as a resource for completing subsequent class assignments, or for your future interest. Note: the BugWood Network can not be used to fulfill this assignment; the goal is to find on-line resources in addition to this one, which will be highlighted in class. Due date is on the course schedule. This assignment is worth 3 points.

2. Exams

There will be three cumulative lecture exams (worth 20, 30 and 50 points each) and two lab exams (worth 15 points each). The final lecture exam will cover the last three lab periods as well as all lecture materials. The dates for each exam are listed on the class schedule.

Missed examinations: Make-up exams will be given only if a valid, documented excuse for your absence (i.e. serious illness, death in the family etc.) is provided within 24 hours after an exam is given. You may call and leave a message on Dr. Covert's office answering machine (542-1205) or with the School's receptionist (542-2686), if necessary. *Missed exams without an acceptable, timely excuse will receive a grade of zero.* To acknowledge your understanding of this policy, complete the form on the last page of this syllabus, and return it to Dr. Covert as soon as possible. Completion of this assignment is required; you can not take the first exam if this form has not been handed in.

3. Quizzes

There will be a short (~ 5 min) quiz at the end of each lecture on material covered in the previous lecture. These quizzes will be worth 15 points in total (your final quiz score will equal 15 x [your percentage correct answers out of the total possible correct answers]).

4. Forest Disease Lab Assignments

There will be three lab assignments that contribute to your course grade: a pathogen morphology assignment (2 points), a fusiform rust mortality lab (5 points), and a “chalk talk” on a selected disease problem (10 points). The details of these assignments and their due dates will be discussed in upcoming classes. The first of these assignments will not be due until early to mid March.

5. Additional Assignment for Graduate Credit via Enrollment in FORS 7982/8982

Read, summarize, and analyze 2 recent forest health research articles. These articles should be published in the primary research literature and should not be review articles. Supply a copy of each article with your summary. See Dr. Covert if you would like advice on how to find appropriate scientific articles for this assignment. Each paper will be worth 10 points, however, failure to complete this assignment by any graduate student will automatically cause their final course grade to drop by two letter grades. Due dates are on the course schedule.

6. Extra Credit Opportunity

Collect up to five samples of diseased tree tissue. Identify the disease, collection location and pathogen. Label and preserve each sample appropriately so that it may be used in future offerings of FORS 4210/6210. Each sample will be worth 1 point. Samples will be accepted at any time during the semester, up to the last day of class.

Course Grading:

Undergraduate students may earn a total of 165 points. Graduate students may earn a total of 185 points. A maximum of 5 extra points can be added on to the total earned by any student by collecting diseased samples. Letter grades will be assigned at the end of the quarter based on the total number of points earned as follows:

A = 90-100% of total available points

B = 80-89% of total available points

C = 70-79% of total available points

D = 60-69% of total available points

F = 0-59% of total available points

Academic honesty

All academic work must meet the standards contained in UGA’s academic honesty policy, which is titled “A Culture of Honesty.” Each student is responsible for informing themselves about these standards before performing any academic work. Students should not complete all, or part, of another student’s assignment unless the project has been specifically designated by the instructor as a group assignment. “A Culture of Honesty” is available at the Vice President for Instruction’s website at <http://www.uga.edu/ovpi>, under “Academic Honesty”. Any suspected violations of academic honesty will be investigated according to University procedures. Students who are guilty of violating the academic honesty policy will typically receive a grade of "F" and a numerical score of zero on the assignment in question, as well as a course grade of "F".

FORS 4210/6210 Spring 2006 - Course Schedule

Note: "EAG" refers to the textbook by Edmonds, Agee and Gara

Week	Date	Topic	Instructor/Class Assignment
1	M 1/9	Course Introduction & Forest health concepts	Covert; EAG p. 1-20
	W 1/11	The Bugwood Network	Guest lecturer: Dr. David Moorhead
	F 1/13	Lab - Introduction to insects	Berisford; EAG p. 413-435
2	M 1/16	No class - M. L. King Holiday	-
	W 1/18	Introduction to Forest Entomology Forest insect feeding groups	Berisford; EAG p. 413-435
	F 1/20	Lab - Insect Orders important to forest entomology Types of forest insect damage	Berisford; EAG p. 436-459 Summary of useful web sites due today (email to Dr. Covert by 5 pm).
3	M 1/23	Defoliators	Berisford; EAG p. 462-488
	W 1/25	Defoliators	Berisford; EAG p. 462-488
	F 1/27	Lab - Major defoliating insects and their damage	Berisford; EAG p. 462-488
4	M 1/30	Bark beetles	Berisford; EAG p. 491-514
	W 2/1	Bark beetles	Berisford; EAG p. 491-514
	F 2/3	Lab - Bark beetles, Ambrosia beetles, Gallery patterns	Berisford; EAG p. 491-514 & p. 516-524
5	M 2/6	Ambrosia beetles, Regeneration insects, Shoot insects	Berisford; EAG p. 516-524 Grad student paper summary #1 due
	W 2/8	Scale insects, Adelgids, Aphids, Other sap-feeding insects	Berisford; EAG p. 543-559
	F 2/10	Lab - Sap feeders, Shoot Insects and regeneration pests and damage	Berisford; EAG p. 543-559
6	M 2/13	Seed & cone insects, Wood products insects	Berisford; EAG p. 526-541 & p. 543-559
	W 2/15	Introduced forest insects: new problems for southern forests	Berisford; EAG p. 561-569
	F 2/17	Lab Exam #1	-
7	M 2/20	Lecture Exam #1	-
	W 2/22	Wildland fire prevention & detection	Reitz; EAG: p. 102-112

	F 2/24	Lab – Fire	Reitz
8	M 2/27	Fire suppression	Reitz; EAG: p. 112-127
	W 3/1	Forest structure and fire behavior	Reitz; EAG: p. 130-139
	F 3/3	Lab – Fire	Reitz
9	M 3/6	Managed wildland fire	Reitz; EAG: p. 148-158
	W 3/8	Introduction to diseases	Covert; EAG: p. 185-197
	F 3/10	Lab – Morphology of forest pathogens	Covert; EAG: p. 228-237
-	M 3/13	No class – Spring Break	
	W 3/15	No class – Spring Break	
	F 3/17	No class – Spring Break	
10	M 3/20	Disease-causing organisms	Covert; EAG: p. 228-237 Grad student paper summary #2 due
	W 3/22	Root diseases	Covert; EAG: p. 275-291
	F 3/24	Lab – Chalk Talks	-
11	M 3/27	Root diseases	Covert; EAG: p. 291-307
	W 3/29	Foliage diseases	Covert; EAG: p. 309-323
	F 3/31	Lab – Chalk Talks	-
12	M 4/3	Lecture Exam #2	-
	W 4/5	Stem and branch diseases: Rusts	Covert; EAG: p. 323-331
	F 4/7	Lab Exam #2	-
13	M 4/10	Stem and branch diseases: Rusts	Covert; EAG: p. 323-331
	W 4/12	Stem and branch diseases: Mistletoes and Cankers	Covert; EAG: p. 333-347
	F 4/14	Lab - Fusiform rust	
14	M 4/17	Sudden Oak Death	Guest Lecturer: Dr. Jean Woodward-Williams
	W 4/19	Stem and branch diseases: Galls and Decays	Covert; EAG: p. 347-358
	F 4/21	Lab – Chalk Talks	-

15	M 4/24	Stem and branch diseases: Vascular wilts	Covert; EAG: p. 358-362
	W 4/26	Red Bay Mortality	Guest Lecturer: Dr. Steve Fraedrich
	F 4/28	Lab – Chalk Talks	-
16	M 5/1	Forest Declines	Covert; EAG: p. 364-381
	W 5/3	Final Exam 12 noon	

My signature below indicates that:

- 1.) I have read and understood all class policies described in the course syllabus for FORS 4210, Forest Health and Protection, offered Spring Semester 2006.
- 2.) I have been given an opportunity to ask questions and have the syllabus clarified for me to my satisfaction.

(signature)

(please print name)

Date: _____