

BIOLOGICAL CONTROL COURSE (ENTO 4500) SYLLABUS SPRING SEMESTER 2009

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

Course objectives:

The students will be able to recognize key groups of arthropod natural enemies and will understand the basic biology of natural enemies of pests, as well as the ecological principles underlying the use of biological control for managing pest insects, plants, and pathogens. Students also will gain practical experience in recognizing and manipulating some natural enemies in the laboratory and greenhouse. Students will further develop communication and critical thinking skills through interactive activities and presentations in class

Lectures: Monday and Wednesday, 8:00- 8:50 a.m., 319 Flynt

Laboratory: Monday, 1:10-3:00 p.m., 301 Flynt

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Readings: Course Textbook :
Natural Enemies, by Ann E. Hajek (2004, Cambridge Univ. Press).

Grading: Each student will complete a lab project (details below), will complete 1 research paper and accompanying presentation, and will take 3 exams during the semester and a non-comprehensive final.
Grades will be earned on a points basis. A total of 1000 points is possible. Grades will be awarded based on portions of the 1000 point total:

A = 900-1000
B = 800-899
C = 700-799
D = 600-699
F = anything below 600

Lab project (20% of grade = 200 points)
A. Conduct a laboratory or greenhouse experiment selected from a list of possible projects provided during the semester
B. Collect data, analyze and present results in written and oral format

Exams: 3 during semester and a non-comprehensive final, worth 15% of grade each (150 points each)

One research paper will be required, which is worth 20% of grade (200 points). The topics will be provided during the semester and will be current issues in biological control.

Make-up Exams and Quizzes: In order to retake a missed exam or quiz, students must have a legitimate, documented excuse and make every effort to contact the instructor prior to the test to be missed.

Honor Code: All academic work must meet the standards contained in “A culture of Honesty.” Students are responsible for informing themselves about those standards before performing any academic work. Links for more detailed information can be found at:

<http://www.uga.edu/ovpi/honesty/acadhon.htm>

Documented Disability Statement for Griffin Campus: Students with a documented disability must inform the instructor at the close of the first class meeting. You will be referred to the Office of Academic Programs, Room 107 in the Flynt Building for consultation regarding evaluation, documentation of your disability, and a recommendation as to the accommodation, if any, to be provided. Students must provide instructors with an accommodation form from the Office of Academic Programs listing reasonable accommodation to sign and return to the Office of Academic Programs. Students who do not wish to receive services are still strongly encouraged to register with the Office of Academic Affairs.

BIOLOGICAL CONTROL- ENTO 4500
LECTURE/LAB SCHEDULE – SPRING 2009

Date	Class No.	Subject	Text Pages
M Jan 12		Course introduction, overview, context; History and philosophy of integrated pest management	4-17, 318-337
M Jan 12		Lab: Project assignments; “Lions and Tigers and Bears”	
W Jan 14		History and philosophy of biological control	19-30
M Jan 19		Martin Luther King Jr Day	
W Jan 21		Ecology of biological control	101-123
M Jan 26		Ecology of biological control	101-123
M Jan 26		Lab: What’s in a crop?	
W Jan 28		Ecology of biological control	101-123
M Feb 2		Biology of parasitoids	145-168
M Feb 2		Biology of parasitoids; Lab: Who are the parasitoids?	145-168
W Feb 4		Parasitoids in biological control: Case studies	145-168
M Feb 9		EXAM 1	
M Feb 9		Biology of predators; Lab: Who are the predators?	124-143
W Feb 11		Biology of predators	124-143
M Feb 16		Predators in biological control: Case studies	124-143
M Feb 16		Lab: Functional response	105-106
W Feb 18		Biology of nematodes	170-179
M Feb 23		Biology of pathogens: Bacteria	180-189
M Feb 23		Lab: Independent paper and project work	
W Feb 25		Biology of pathogens: Viruses	190-202
M Mar 2		Biology of pathogens: Fungi	203-213
M Mar 2		Lab: Fungi and caterpillars	
W Mar 4		Biology of herbivores: Animals	233-249
M Mar 9		Spring Break	
W Mar 11		Spring Break	
M Mar 16		Biology of herbivores: Animals, Pathogens; check caterpillars	233-257
M Mar 16		Research Paper presentations; discussion	
W Mar 18		Biology of herbivores: Pathogens	251-257
M Mar 23		Exam 2	
M Mar 23		Lab: Discussion/debate: Is classical biological control risky?	297-317
W Mar 25		Classical biological control	39-61
M Mar 30		Classical biological control	39-61
M Mar 30		Lab: Lacewing cage releases	
W Apr 1		Augmentation biological control	62-79
M Apr 6		Augmentation biological control; check lacewings	62-79
M Apr 6		Exam 3 (take home)	
W Apr 8		Conservation biological control	80-96
M Apr 13		Conservation biological control	80-96
M Apr 13		Lab: Pesticides and BC	
W Apr 15		Conservation biological control	80-96

M Apr 20		Conservation biological control : Plant resistance	80-96
M Apr 20		Work on lab projects	
W Apr 22		Case studies: Biological control in perennial crops	
M Apr 27		Case studies: Biological control in row crops	
M Apr 27		Project presentations	
W Apr 29		Case studies: Biological control in Med/Vet	
Th Apr 30		Case studies and Review	
Th Apr 30		Case studies and Review	
M May 04 8:00-11:00		Final Exam	