

**WELCOME TO ALS 4161**  
**Exotic Species and Biosecurity Issues**  
3 credits  
**Fall 2010**

**Classroom and Polycom Syllabus**

**Instructor:** Amanda C. Hodges, Ph.D.

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**Course Website:** <http://entnemdept.ufl.edu/Hodges/als4161/index.html>

**Office Hours:**

Monday and Wednesday 8:00am-9:00am or by appointment.

Class members will be notified during class and via a course list-serv if office hours are unavailable in a given week. Faculty members are subject to university, college and departmental commitments, and it is recommended that you contact the instructor prior to coming to the office outside of the designated time for office hours.

Course TA: None

**REQUIRED TEXTBOOK AND OTHER RESOURCES**

Exotic Pests and Diseases: Biology and Economics for Biosecurity, D.A. Sumner (ed.), 2003, ISBN#0-8138-1966-0, Iowa State Press

This book can be purchased at the UF bookstore, or through various online vendors.

The textbook will be used for some of the lectures, and also for supplemental reading assignments. Exams will include information from lectures, assigned textbook readings, and other reading assignments.

**Additional Reading Assignments**

Additional reading assignments will be provided to students in the form of PDF files on the course website: <http://entnemdept.ufl.edu/Hodges/als4161/index.html> . Gatorlink login required on the course website to access course learning materials. Graduate students will be assigned one journal article per week as reading material in addition to reading requirements for all students.

**COURSE PREREQUISITES**

Integrated Principles of Biology 1 and Laboratory (BSC 2010 and 2010L) and Integrated Principles of Biology 2 and Laboratory (BSC 2011 and 2011L) or equivalent.

## COURSE OBJECTIVES

From the lecture and course assignments, students will gain an understanding of the following agricultural biosecurity concepts:

- 1) An awareness of the importance of invasive species to U.S. agricultural and natural areas.
- 2) An awareness of trade issues and their relevance to agricultural biosecurity.
- 3) An understanding of the foundation principles and basic practices of pest exclusion, eradication, and management tactics for invasive species issues.
- 4) An ability to assimilate information on invasive species, and develop inferences from case study examples.
- 5) A perspective on the research, extension, and regulatory components of invasive species issues.
- 6) An appreciation of early detection and correct identification of new and emerging pest problems.
- 7) An awareness of news and developments reported in the popular and scientific media on issues affecting the subject matter of this course.
- 8) An awareness of the importance of insect vectors to animal and human health.
- 9) An awareness of the importance of exotic animal disease threats to agriculture.

## GENERAL COURSE DETAILS

Credits: 3

Catalog Statement: "Study of U.S. policies and programs affecting agricultural biosecurity. Attention is devoted to current agricultural and extension and regulatory programs. Emphasis is on the policies and procedures involved in detecting and reporting non-indigenous species. Students will develop the analytical capabilities to assess the consequences of agricultural biosecurity threats."

Time Offered: M, W 3:00pm-3:50pm (Class Period 8)

Location Offered: Entomology and Nematology Department, Building 970, RM 1031, and at Research and Education Centers via Polycom Distance Education.

## COURSE OUTLINE

WEEK	DATE	LECTURE/ACTIVITY	READINGS
1	8/23/10	Welcome, Introduction to Course	
1	8/25/10	The Importance of Invasive Species	
2	8/30/10	What is Biosecurity?	Chapter 5, pages 55-67
2	9/01/10	Invasive Species and Biosecurity: Potential Pathways for Introduction <b>Facebook Posting Due</b>	Chapters 1-3, pages 3-33
3	LABOR DAY		
3	9/08/10	International Trade Issues, Part 1	Chapter 4, pages 39-54
4	9/13/10	International Trade Issues, Part 2	
4	9/15/10	Invasive Species and the Role of Cooperative Extension <b>Facebook Posting Due</b>	

5	9/20/10	Recent Arthropods of Concern <b>Written Assignment 1 Due: Describe the Impact of Historical Case Study Examples on Today's Agricultural Programs</b>	
5	9/22/10	Regulatory Issues and Case Studies-Arthropods	Chapters 10, 12, and 13; pages 151-166, and 185-215
6	9/27/10	Arthropod Case Study Examples <b>Topic Approval Deadline (Written Assignment 3)</b>	
6	9/29/10	<b>EXAM 1-NO LECTURE (WEEKS 1-5) Facebook Posting Due</b>	
7	10/04/10	Arthropods as Vectors of Plant, Human, and Animal Disease	
7	10/06/10	Regulatory Case Studies and Recent Examples-Plant Parasitic Nematodes	Chapter 8, pages 99-119
8	10/11/10	Regulatory Issues and Case Studies-Plant Pathogens	Chapters 9, 11, and 14; pages 121-150, 167-184, and 215-224
8	10/13/10	Plant Pathogens of Concern-Recent Examples and Issues <b>Facebook Posting Due</b>	
9	10/18/10	Mollusks-Plant and Human Health Concerns	
9	10/20/10	Plant Regulations-A State of Florida Perspective	
10	10/25/10	Select Agents-Human or Animal Concern? (Part 1)	
10	10/27/10	Select Agents-Human or Animal Concern? (Part 2) <b>Written Assignment 2 Due: Select an Exotic Pest and Describe its Potential Impact to a State, Region, or the Continental U.S. Facebook Posting Due</b>	
11	11/01/10	Animal Disease Example Case Studies-Mad Cow Disease and Foot and Mouth Disease	Chapters 6 and 7; pages 71-98.

11	11/03/10	<b>EXAM 2-NO LECTURE (WEEKS 6-10)</b>	
12	11/08/10	Swine Diseases of Concern	
12	11/10/10	Various Animal Select Agent Diseases of Concern <b>Facebook Posting Due</b>	
13	11/15/10	Sheep Pox Virus, Goat Pox Virus, and Lumpy Skin Disease	
13	11/17/10	Poultry Diseases of Concern	
14	11/22/10	Challenges in Animal Biosecurity <b>Written Assignment 3 Due: Develop an Extension Fact Sheet on a Pest of Concern</b>	Florida SART Training Materials <a href="http://www.flsart.org/">http://www.flsart.org/</a>
14	11/24/10	Synthesizing Concepts-Extension and Regulatory Issues <b>Facebook Posting Due</b>	
15	11/29/10	Poultry Biosecurity Issues	
15	12/01/10	The Importance of Correct Pest Identification and Communication Procedures <b>Written Assignment 4 Due:</b> <b>Option 1: What do You Think the Future Issues and/or Challenges will be for Regulating Plant Parasitic Nematodes, Plant Pathogens, or Arthropods?</b> <b>Option 2: What Major Issues and/or Challenges are on the Horizon that could Impact Animal Agriculture and/or Wildlife?</b>	
16	12/06/10	Career Opportunities in Biosecurity <b>Activity Assignment Due: Complete the NPDN e-learning Crop Biosecurity Course, chilli thrips, and <i>Ralstonia</i> modules (<a href="http://cbc.at.ufl.edu">http://cbc.at.ufl.edu</a> )</b>	
16	12/08/10	Final Exam Review <b>Facebook Posting Due</b>	
	<b>TBA</b>	<b>Final Exam</b>	

**GRADING POLICY****EVALUATION**

Exam 1	50
Exam 2	50
Written Assignments	100
Activity Assignment	20
Class Participation	20
Final Exam	100
<b>Total ALS 4161</b>	<b>340 points</b>

<b>Final Grading</b>	<b>Scale: Percentage</b>
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
E	0-59

**INCOMPLETE GRADES**

\* The application process for receiving an incomplete grade is the responsibility of the student. Students may download the CALS incomplete grade form at: [http://cals.ufl.edu/cals\\_solutions/forms.shtml](http://cals.ufl.edu/cals_solutions/forms.shtml) The instructor must sign the application for an incomplete grade, but the student must initiate the paperwork process. The instructor will only approve an incomplete grade application if the following conditions are met:

- The student has completed a major portion of the course with a passing grade (“D” or better)
- The student is unable to complete course requirements because of documented circumstances beyond his or her control
- The student and instructor have discussed the situation prior to the final exam (except under emergency conditions)
- The instructor will submit a final grade for the student on the date due (indicated below) whether or not all work is completed

Note that the paperwork for receiving an incomplete will also include deadlines for remaining assignments due. The instructor will not consider incomplete requests after the last day of classes.

**EXTRA CREDIT: NO EXTRA CREDIT WILL BE AVAILABLE****ASSIGNMENTS****Activity Assignment**

One activity assignment, valued at 20 points, is included as a component of the course. The activity assignment deadline is December 6, 2010, but you may choose to complete the activity earlier. You must complete a series of 6 NPDN e-learning crop biosecurity modules, as well as two pest-specific modules (chilli thrips and *Ralstonia*). Modules are located at: <http://cbc.at.ufl.edu> . Evidence of your completion of this activity will be proven by submitting three certificates of completion to the course instructor (crop biosecurity, chilli thrips, and *Ralstonia*). The activity should be completed by 11:59pm on the due date, but may be completed prior to the due date.

You will need high-speed internet to access the e-learning modules. You will need to install Adobe® Flash Player <http://get.adobe.com/flashplayer/> on your computer to view the e-learning content.

**Class Participation**

Class participation is worth 20 points. Students will receive a ½ point deduction for every missed class, unless an appropriate excuse is presented. Documentation of a medical reason or death in the family is an example of an excused absence. Each class ends with a group-based discussion. Students are expected to participate in the group discussion. Upon request by the instructor, individual students will be asked to post a written summary of the class discussion on the course’s Facebook page. Written discussion group

summaries will be posted by students on a rotating basis. Each student is also expected to post a question of their own, and answer questions from two other students at the end of every two week period. A ½ point deduction will occur for a missing question or post. At the conclusion of the semester, each student should have posted eight questions and responded to 16 questions from other students. Responses should contribute to the discussion and consist of more than one word responses. For example, a ‘yes’ or ‘I agree’ response is not sufficient to warrant class participation credit. All posts to the Facebook page should be professional, and relate directly to the content of the course material. As noted on the Facebook page, the instructor reserves the right to remove inappropriate content that is not related to the course or subject matter. The class participation information posts are included on the syllabus as reminder. However, all Facebook posts are due and the end of the week (Saturday at 11:59pm).

### **Written Assignments**

You will complete four written assignments, worth 25 points each. Each written assignment will be a minimum of two pages and a maximum of five pages. Written assignments will be 12 point, Times New Roman font, 1 inch margins, and either single spaced or double spaced. Written assignments will require that you can assimilate lecture and reading content from the course, and search for your own references in some cases. Written assignments will be graded on the following criteria:

- 1) Appropriate and accurate references utilized
- 2) Requested topic addressed
- 3) Grammatical accuracy
- 4) Logical organization of content
- 5) Use of requested font, margins, and length requirements for the written assignment.

Written assignments will be returned one week after the due date. Written assignments are due by 5pm on the due date. Written assignments will be checked for plagiarism at [turnitin@uf](mailto:turnitin@uf) <http://www.at.ufl.edu/~turnitin/support.html> . Plagiarism will result in a grade of ‘0’ for the assignment.

### **EXAM INFORMATION (GAINESVILLE CAMPUS)**

Exams will be given during the scheduled class period. Exams will be closed book. Exams may include classroom lectures as well as discussion information generated during class. Material from reading assignments also may be included in the exams. Exams 1 and 2 will include: 1) 10 points of short answer and/or fill-in-the blank and 2) four 10 point essay questions. Students will be provided with up to 15 study questions one week prior to the exam. The four essay questions will be selected (by the instructor) for the exam. The Final Exam will consist of new content (50 points) and previous material from Exams 1 and 2 (50 points). The Final Exam will include 10 points of short answer and/or fill-in-the blank for both new content (weeks 11-16) and previous material (Exams 1 and 2).

### **EXAM INFORMATION (POLYCOM STUDENTS)**

Exams will be given during the scheduled class period. Exams will be closed book. Polycom students will be responsible for identifying a local proctor for their exam, and receiving instructor approval for the proctor at least one week prior to the scheduled exam. Exams may include classroom lectures as well as discussion information generated during class. Material from reading assignments also may be included in the exams. Exams 1 and 2 will include: 1) 10 points of short answer and/or fill-in-the blank and 2) four 10 point essay questions. Students will be provided with up to 15 study questions one week prior to the exam. The four essay questions will be selected (by the instructor) for the exam. The Final Exam will consist of new content (50 points) and previous material from Exams 1 and 2 (50 points). The Final Exam will include 10 points of short answer and/or fill-in-the blank for both new content (weeks 11-16) and previous material (Exams 1 and 2).

### **MISSED EXAMS**

Make-up exams will only be allowed due to clearly documented medical excuses or a death in your immediate family (spouse, sibling, parent, child, or grandparent). You will need to provide the instructor with clear documentation, and contact details to verify the excuse. Make-up exams will not be identical to either the classroom exam or the distance education exam. It is the responsibility of the student to contact the instructor no later than three days following the missed exam. Students failing to contact the instructor by three days following a scheduled exam will be assigned a numerical grade of 'O' for the missed exam.

#### **E-MAIL/GATORLINK ACCOUNT REQUIREMENTS**

You will be required to get a Gatorlink computer account through the university. This service is free to all students. Using this account, you will be able to send and receive e-mail and access the World Wide Web from home or school. Instructions for getting a Gatorlink account can be found at <http://www.gatorlink.ufl.edu/>. **You must correspond through this e-mail account.**

#### **POLICY STATEMENTS: ACADEMIC HONESTY, PLAGIARISM, SOFTWARE USE, UF COUNSELING SERVICES, SERVICES FOR STUDENTS WITH DISABILITIES**

In 1995, the UF student body enacted a new honor code and voluntarily committed itself to the highest standards of honesty and integrity. When students enroll at the university, they commit themselves to the standard drafted and enacted by the students.

In adopting this honor code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the university community. Students who enroll at the university commit to holding themselves and their peers to the high standard of honor required by the honor code. Any individual who becomes aware of a violation of the honor code is bound by honor to take corrective action. The quality of a University of Florida education is dependent upon community acceptance and enforcement of this honor code.

**The Honor Code: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.**

On all work submitted for credit by students at the university, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

The University requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge is diminished by cheating, plagiarism and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior.

Students should report any condition that facilitates dishonesty to the instructor, department chair, college dean or Student Honor Court.

It is assumed all work will be completed independently unless the assignment is defined as a group project, in writing by the instructor. This policy will be vigorously upheld at all times in this course.

#### **PLAGIARISM INFORMATION FROM THE ENTOMOLOGY AND NEMATOLOGY DEPARTMENT**

Plagiarism is a serious problem in academia today, especially with the ease of obtaining information from the World Wide Web. Plagiarism is defined as representing the words or ideas of another person as one's own, without attribution to the source. All words and ideas must be attributed to a source unless they are considered common knowledge (i.e., widely known by many people and found in many different sources). There are many kinds of plagiarism, as you will read on the Guide to Plagiarism website referenced below.

Plagiarism is unethical, unacceptable in science, and prohibited by the UF Student Honor Code (<http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php>). The consequences for plagiarism while at the University of Florida range from receiving a grade of zero for the plagiarized assignment or a failing grade for the course, to, for repeated offenses, expulsion from the university. Plagiarism after graduate training calls into question one's scientific integrity and can lead to banning of publication in journals and the loss of jobs/careers.

In some countries, it is an acceptable practice to write in a manner that faculty members at the University of Florida consider to be plagiarism. Students studying in our university and with plans to publish their research in the English language need to know what plagiarism is and how to avoid it.

Students who plagiarize will be caught and consequences will be applied. Many faculty in our department check all written assignments using an anti-plagiarism software called Turnitin® (<http://www.at.ufl.edu/~turnitin/about.html>). You may wish to customize this section and put in your plans to use Turnitin and your consequences for plagiarism.

For further information and examples of plagiarism, I strongly suggest that you please read the George Smathers' Library Guide to Plagiarism at

[http://www.uflib.ufl.edu/msl/services/tutorials/plagiarism/student\\_intro.html](http://www.uflib.ufl.edu/msl/services/tutorials/plagiarism/student_intro.html)

Please understand that our purpose in bringing to your attention the matter of plagiarism is to help train you to be ethical scientists, not to impugn your character.

**SOFTWARE USE:** All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

**CAMPUS HELPING RESOURCES:** Students experiencing crisis or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. Both the Counseling Center and Student Mental Health provide confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal or lacking clear career and academic goals, which interfere with their academic performance. The Counseling Center is located at 301 Peabody Hall (next to Criser Hall). Student Mental Health is located on the second floor of the Student Health Services in the Infirmary.

1. *University Counseling Center*, 301 Peabody Hall, 392-1575; personal and career counseling:

[www.counsel.ufl.edu/](http://www.counsel.ufl.edu/)

2. *Student Mental Health*, Rm. 245 Student Health Care Center, 392-1171, personal counseling:

[www.shsc.ufl.edu/smhs/](http://www.shsc.ufl.edu/smhs/)

Alcohol and Substance Abuse Program (ASAP)

Center for Sexual Assault/Abuse Recovery & Education (CARE)

Eating Disorders Program

Employee Assistance Program

Suicide Prevention Program

3. *Career Resource Center*, DR-100 J.W.Reitz Union, 392-1602, career development assistance and counseling.



**Students with Disabilities:** The Disability Resource Center Coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. 0001 Reid Hall, 392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)