

EXOTIC SPECIES AND BIOSECURITY ISSUES

ALS 4161/6166

3 CREDITS

FALL 2023

INSTRUCTOR INFORMATION

Instructor

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GENERAL INFORMATION

Course Description

This course covers a study of U.S. policies and programs affecting agricultural biosecurity. Emphasis is on current agricultural extension and regulatory programs, and the policies and procedures involved in detecting, managing, and reporting non-indigenous species. Students will develop the analytical capabilities to assess the consequences of agricultural biosecurity threats. The course will explore content using narrated lectures and assigned readings.

Learning Goals and Objectives

After completing this course, students will be able to:

- describe the importance of invasive species to U.S. agriculture and natural areas
- evaluate trade issues and their relevance to agricultural biosecurity
- explain the principles and basic practices of pest exclusion, eradication, and management tactics for invasive species issues
- describe the research, extension, and regulatory components of invasive species issues
- evaluate news and developments reported in the popular and scientific media on issues affecting the subject matter of this course
- communicate research on exotic species and biosecurity issues using written skills

Prerequisite

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 Website

The course content, including narrated lectures, assigned readings, examinations, quizzes, discussions, and assignments will be available through the course website in Canvas at <https://elearning.ufl.edu/>. Each week, students are required to view the narrated lectures and associated readings, participate in the group discussions, and take the assignments, quizzes, and examinations prior to the assigned due dates to complete the course requirements. Weekly modules will be available by 8:00 am on Monday of the module week.

Course Communications

In addition to the assigned group discussion assignments, students are encouraged to post general questions on topics taught in the class under the “General Questions” thread. The instructor and/or the Teaching Assistants (TAs) will respond to the questions. Other students are also encouraged to respond to the questions. Private questions relating to the course should be sent to the instructor via e-mail. Students will be notified by Canvas e-mail if the instructor or TAs will be unavailable for office hours, and in that case, alternative arrangements will be made.

COURSE MATERIALS

Textbooks/Readings

The following textbook is **required** for this course:

- Mick N. Clout and Peter A. Williams. 2013. *Invasive Species Management. A handbook of Principles and Techniques*. Oxford University Press. 308 pp.
This textbook is available free of charge as an ebook through the UF libraries with your Gatorlink login
- A list of required readings intended to aid the student’s understanding of the topics may be made available to the students in Canvas. Students must also download and read these assigned readings.

Minimum Technology Requirement

The University of Florida expects students entering an online program to acquire computer hardware and software appropriate to their degree program. Most computers are capable of meeting the following general requirements. A student’s computer configuration should include:

- Webcam
- Microphone
- Broadband connection to the internet and related equipment (cable/DSL modem)
- Microsoft Office Suite installed (provided by the university)

Individual colleges may have additional requirements or recommendations, which students should review before starting their program.

Minimum Technical Skills

To complete your tasks in this course, you will need a basic understanding of operating a computer and using word processing software.

Honorlock

Honorlock is an online proctoring service that allows students to take exams on-demand 24/7. There are no scheduling requirements or fees. You will need a laptop or desktop computer with a webcam, a microphone, and a photo ID. The webcam and microphone can be either integrated or external USB devices. Honorlock requires that you use the Google Chrome browser and that you must add the Honorlock extension to Chrome. For further information, FAQs, and technical support, please visit Honorlock.

Zoom

Zoom is an easy-to-use video conferencing service available to all UF students, faculty, and staff. The office hours will be hosted via Zoom. You can find resources and help using Zoom at the University of Florida's Zoom website.

STUDENT ASSESSMENTS

Student assessments will be based on performance in the exams, quizzes, and discussions. There are 3 examinations, 14 discussions, and 14 quizzes. Student assessments for graduate students will, in addition, include a pest risk assessment report.

Examinations

There are three, non-cumulative exams (50 points each) throughout the course. The exams will test the student's understanding of the literature and concepts taught in the course. The exams will include 50 multiple-choice, mix-and-match, and true/false questions. Each exam will be available and accessible in Canvas from 8:00 am to 11:59 pm on Wednesday through Saturday of the exam week. Once you begin the exam, you will have 80 minutes to complete it in a single session, so do not open the exam until you are ready to complete it. The exams will be proctored using Honorlock. The first exam will cover materials taught from weeks 1 to 5, the second exam will cover materials taught from weeks 6 to 10, and the third exam will cover materials taught from weeks 11 to 14.

There will be a non-obligatory make-up exam at towards the end of the semester. Students can take the make-up exam to improve their final scores. The make-up exam score will replace the lowest score on any of the 3 exams in the course. Students will not be allowed to take the make-up exam without having taken all the 3 exams in the course.

Quizzes

There are 14 quizzes (5 points each) throughout the course. The quizzes will include 5 multiple-choice, mix-and-match, and true/false questions. The quizzes will be made available and accessible in Canvas from 8:00 am to 11:59 pm EST from Wednesday through Saturday of the quiz week. The quizzes are not proctored. Once you begin the quiz, you will have 7 minutes to complete it in a single session, so do not open the quiz until you are ready to complete it. There are 14 quizzes throughout the semester but

your two lowest quiz scores for the semester will be dropped, and your grade for the quiz component will be based on the best 12 of 14 quizzes.

Discussions

Discussions will be hosted in Perusall. Each module will have a selected reading from the assigned readings for you to annotate and discuss with each other. The articles for discussion will be available in Perusall from Sunday through Saturday of the module week. Each Perusall discussion will be worth 10 points.

Pest Risk Assessment Report (required for graduate students only)

For the pest risk assessment report (100 points), graduate students will prepare an analysis of a pest of concern to Florida or the United States for development of a pest risk assessment. It could be about a pest or pathogen of medical or agricultural importance. The report should comprise the following:

1. Categorization of the pest or pathogen of concern
2. Assessment of the probability of introduction and spread
3. Assessment of potential economic consequences (including environmental impacts) of its introduction and establishment

The pest risk assessment report should not be more than 10 pages in length (including the main text, references, tables and/or figures). It should be double-spaced, 12 point, Times New Roman font with 1-inch margins. You are to submit your topic to the instructor for approval before the topic submission due date. The references should be at least 5, from primary literature, and must be according to the APA 7th referencing style. Instructions on how to structure the report will be posted in Canvas. The reports are due by 11:59 pm of the due date. Late submissions will be marked down by 5 points per day. Overall, the pest risk assessment report evaluations will be as follows:

1. Evaluation of the pest risk assessment topic by instructor (10 points) – You are to submit the topic of your pest risk assessment report, including an abstract, and a list of 3 references. Include a 3 – 5 sentence content summary of 3 references, for approval by the instructor before the due date. Submissions should be made in Canvas and will be evaluated using a rubric.
2. Evaluation of pest risk assessment draft by the instructor (30 points) – you are to submit a draft of the report on your approved topic before the due date for evaluation by the instructor. The draft will be evaluated using a rubric.
3. Evaluation of pest risk assessment report by the instructor (60 points) – you are to submit your pest risk assessment report before the due date for evaluation by the instructor. The pest risk assessment report will be evaluated by the instructor using a rubric.

COURSE POLICIES

Attendance Policy

Students are expected to watch the lectures, complete their assignments, and be prepared to participate in discussions. Please read through the following Honor Code that students must abide by for this course and attendance at the university, which can be found here: <https://catalog.ufl.edu/ugrad/1617/advising/info/student-honor-code.aspx>

Late Work Policy

Students can submit late work up to 5 days after the due date. However, 5% will be deduced each day an assignment is turned in late.

Course Grading Policy

Efforts will be made to have each assignment graded and posted within one week of the due date. However, this may change, and announcements will be made by instructor.

Plagiarism

The Student Honor Code and Student Conduct Code states that:

"A student must not represent as the student's own work all or any portion of the work of another. Plagiarism includes but is not limited to:

- Stealing, misquoting, insufficiently paraphrasing, or patch-writing.
- Self-plagiarism, which is the reuse of the student's own submitted work, or the simultaneous submission of the student's own work, without the full and clear acknowledgment and permission of the faculty to whom it is submitted.
- Submitting materials from any source without proper attribution.
- Submitting a document, assignment, or material that, in whole or in part, is identical or substantially identical to a document or assignment the student did not author."

Netiquette and Communication Courtesy

It is important to recognize that the online classroom is in fact a classroom, and certain behaviors are expected when you communicate with both your peers and your instructors. These guidelines for online behavior and interaction are known as netiquette.

When communicating online:

- Treat the instructor and the Teaching Assistants with respect, even via email or in any other online communication.
- Always use your professors' proper title: Dr. or Prof., or if you are unsure use Mr. or Ms.
- Unless specifically invited, don't refer to a professor by their first name.
- Use clear and concise language.
- Remember that all college-level communication should have correct spelling and grammar.
- Avoid slang terms such as "wassup?" and texting abbreviations such as "u" instead of "you."
- Use standard fonts such as Times New Roman and use a size 12- or 14-point font.
- Avoid using the caps lock feature AS IT CAN BE INTERPRETED AS YELLING.
- Limit and possibly avoid the use of emoticons like :)
- Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and your message might be taken seriously or be construed as being offensive.
- Be careful with personal information (both yours and others).

- Do not send confidential information via email.

Email

When you send an email to your instructor, teaching assistant, or classmates:

- Use a descriptive subject line.
- Be brief.
- Avoid attachments unless you are sure your recipients can open them.
- Avoid HTML in favor of plain text.
- Sign your message with your name and return email address.
- Think before you send the email to more than one person. Does everyone really need to see your message?
- Be sure you REALLY want everyone to receive your response when you click, "Reply All."
- Be sure that the message author intended for the information to be passed along before you click the "Forward" button.

Discussion Boards

When posting on the discussion board in your online class:

- Check to see if anyone already asked your question and received a reply before posting to the discussion board.
- Remember your manners and say please and thank you when asking something of your classmates or instructor.
- Be open-minded.
- If you ask a question and many people respond, summarize all posts for the benefit of the class.
- When posting:
 - Make posts that are on-topic and within the scope of the course material.
 - Be sure to read all messages in a thread before replying.
 - Be as brief as possible while still making a thorough comment.
 - Don't repeat someone else's post without adding something of your own to it.
 - Take your posts seriously. Review and edit your posts before sending.
 - Avoid short, generic replies such as, "I agree." You should include why you agree or add to the previous point.
 - If you refer to something that was said in an earlier post, quote a few key lines so readers do not have to go back and figure out which post you are referring to.
 - Always give proper credit when referencing or quoting another source.
 - If you reply to a classmate's question make sure your answer is correct, don't guess.
 - Always be respectful of others' opinions even when they differ from your own.
 - When you disagree with someone, you should express your differing opinion in a respectful, non-critical way.
 - Do not make personal or insulting remarks.
 - Do not write anything sarcastic or angry, it always backfires.
 - Do not type in ALL CAPS, if you do IT WILL LOOK LIKE YOU ARE YELLING.

GRADING POLICIES

The course grade is based on performance on the exams, quizzes, participation in discussion activities, and the pest management report (for graduate students only). The final grade points will be converted to percentages. The final grade will be assigned as follows:

Course Requirements		Undergraduate		Graduate	
		Point Value	Total Grade Points	Point Value	Total Grade Points
Syllabus quiz		5	5	5	5
Introduce yourself		5	5	5	5
Quizzes		5 each	60	5 each	60
Exams		50 each	150	50 each	150
Discussions	Discussion post	5 each	70	5 each	70
	Evaluation of individual contribution to group discussion	5 each	70	5 each	70
Pest Management report (graduate students only)	Evaluation of the pest risk assessment topic by instructor	n/a	n/a	10	10
	Evaluation of the pest risk assessment draft by instructor			30	30
	Evaluation of final pest risk assessment report by the instructor	n/a	n/a	60	60
Total			360		460

Grading Scale

Grade	Percentages
A	93 - 100
A-	90 - 92.9
B+	87 - 89.9
B	83 - 86.9
B-	80 - 82.9
C+	77 - 79.9
C	73 - 76.9
C-	70 - 72.9
D+	67 - 69.9

D	63 - 66.9
D-	60 - 62.9
E	<59.9 and below

COURSE SCHEDULE

Week/Dates	Topic	Reading	Tasks/Assessments
1/August 23 - 27	Module 1 – Biosecurity and quarantine for preventing invasive species	<ul style="list-style-type: none"> Clout, Chapter 1 	<ul style="list-style-type: none"> Discussion 1 Quiz 1 Orientation quiz Introduce yourself!
2/August 28 – September 3	Module 2 – Risk assessment of invasive species	<ul style="list-style-type: none"> Clout, Chapter 2 	<ul style="list-style-type: none"> Discussion 2 Quiz 2
3/September 5 – 10	Module 3 – Detection and early warning of invasive species	<ul style="list-style-type: none"> Clout, Chapter 3 	<ul style="list-style-type: none"> Discussion 3 Quiz 3 Pest risk assessment report topic due (graduate students only)
4/September 11 - 17	Module 4 – Eradication of invasive species: Progress and emerging issues in the 21 st century	<ul style="list-style-type: none"> Clout, Chapter 4 	<ul style="list-style-type: none"> Discussion 4 Quiz 4
5/ September 18 - 24	Module 5 – Principles of containment and control of invasive species	<ul style="list-style-type: none"> Clout, Chapter 5 	<ul style="list-style-type: none"> Discussion 5 Quiz 5 Exam 1
6/ September 25 – October 1	Module 6 – Biological control of invasive species	<ul style="list-style-type: none"> Clout, Chapter 6 	<ul style="list-style-type: none"> Discussion 6 Quiz 6 Pest risk assessment report draft due (graduate students only)
7/ October 2 – 8	Module 7 – Public participation in invasive species management	<ul style="list-style-type: none"> Clout, Chapter 7 	<ul style="list-style-type: none"> Discussion 7 Quiz 7
8/ October 9 – 15	Module 8 – International legal instruments and frameworks for invasive species	<ul style="list-style-type: none"> Clout, Chapter 8 	<ul style="list-style-type: none"> Discussion 8 Quiz 8
9/October 16 – 22	Module 9 – Management of invasive plants	<ul style="list-style-type: none"> Clout, Chapter 9 and 10 	<ul style="list-style-type: none"> Discussion 9 Quiz 9

			<ul style="list-style-type: none"> • Pest risk assessment report final report due (graduate students only)
10/ October 23 – 29	Module 10 – Management of invasive invertebrates	<ul style="list-style-type: none"> • Clout, Chapter 11 	<ul style="list-style-type: none"> • Discussion 10 • Quiz 10 • Exam 2
11/ October 30 – November 5	Module 11 – Management of terrestrial vertebrate pests	<ul style="list-style-type: none"> • Clout, Chapter 12 	<ul style="list-style-type: none"> • Discussion 11 • Quiz 11
12/ November 6 - 12	Module 12 – Management of invasive fish	<ul style="list-style-type: none"> • Clout, Chapter 13 	<ul style="list-style-type: none"> • Discussion 12 • Quiz 12
13/ November 13 – 19	Module 13 – Marine biosecurity: Management options and response tools	<ul style="list-style-type: none"> • Clout, Chapter 14 	<ul style="list-style-type: none"> • Discussion 13 • Quiz 13
14/November 20 - 26	<i>Thanksgiving week</i>		
15/November 27- December 3	Module 14 – Management of interacting invasives: Ecosystem approaches	<ul style="list-style-type: none"> • Clout, Chapter 15 	<ul style="list-style-type: none"> • Discussion 14 • Quiz 14
16/December 7 – 9			<ul style="list-style-type: none"> • Exam 3

Disclaimer: This syllabus represents current course plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

UNIVERSITY OF FLORIDA POLICIES AND ASSISTANCE

Grades and Grade Points

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

Academic Honesty

The university requires all members of its community to be honest in all endeavors. Cheating, plagiarism, and other acts diminish the process of learning. When students enroll at UF, they commit themselves to honesty and integrity. Your instructor fully expects you to adhere to the academic honesty guidelines you signed when you were admitted to UF.

Plagiarism is the use of ideas or writings produced by someone else. You should not use the writings of another person, including material from the internet (WWW), without putting the ideas in your own words, or placing the copied material in quotes and attributing authorship. In the scientific literature, quotations are rarely used. You should use your own words for answering questions on exams, and in your class project.

As a result of completing the registration form at the University of Florida, every student has signed the following statement:

"I understand the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University. "Furthermore, on work submitted for credit by UF students, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

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

Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to the appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see:
<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>

Services for 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. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation 0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling Center provides 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 University Counseling and Wellness Center, 3190 Radio Road, 352-392-1575
www.counseling.ufl.edu
 - Counseling Services
 - Groups and Workshops
 - Outreach and Consultation
 - Self-Help Library
 - Wellness Coaching
- U Matter We Care, www.umatter.ufl.edu/
- Career Resource Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>