INSECT PEST AND VECTOR MANAGEMENT
IPM 4114/6021
3 CREDITS
SUMMER C 2022

INSTRUCTOR INFORMATION

Instructor
Dr. Tolulope Agunbiade

Contact Information & Hours
Location: 3212 Steinmetz Hall
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Office hours: 12 pm on Fridays (Zoom)

GENERAL INFORMATION

Course Description
This course will cover the principles and practices used in insect pest and vector management and will also emphasize the arthropod pests affecting crops and ornamental plants, humans, and livestock. This is an online course, and it will explore content using narrated PowerPoint presentations and assigned readings.

Learning Goals and Objectives
After completing this course, students will be able to:
- describe the philosophy of integrated pest management
- evaluate the ecological and economic basis for the attainment of pest status
- assess the management approaches available to pest managers, including the advantages and disadvantages of each
- formulate the most appropriate pest management tactic for each pest situation

Prerequisite
- an introductory course in entomology

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 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 discussion assignments, students are encouraged to post general questions on topics taught in the class under the General Questions thread. The instructor will respond to the questions. Other students are also encouraged to respond to the questions. Private questions should be

sent to the instructor via e-mail. Students will be notified by Canvas e-mail if the instructor will be unavailable for office hours.

COURSE MATERIALS

Textbooks/Readings
The following textbook is required for this course:
- van Emden H. F. and M. W. Service. 2004. Pest and vector control. Cambridge University Press. 349 pp.
  This textbook is available free of charge as an ebook through the UF libraries with your Gatorlink login

COURSE SCHEDULE

Week/Dates	Topic	Reading	Tasks/Assessments
Background to Insect Pest and Vector Management			
1/May 9 - 13	Module 1 – Insects and humans	• van Emden and Service, Chapter 1	• Discussion 1 • Quiz 1
2/May 16 – 20	Module 2 – Causes of pest and vectored disease outbreaks	• van Emden and Service, Chapter 2	• Discussion 2 • Quiz 2
3/May 23 -27	Module 3 – Sampling and monitoring of arthropods	• Read the PDF file made available in Canvas	• Discussion 3 • Quiz 3
Approaches to Insect Pest and vector Management			
4/May 31 – June 3	Module 4 – Insecticides, applications, and problems with using insecticides	• van Emden and Service, Chapter 3 – 5	• Discussion 4 • Quiz 4 • Exam 1
5/June 6 – 10	Module 5 – Environmental and cultural control	• van Emden and Service, Chapter 6	• Discussion 5 • Quiz 5
6/June 13 – 17	Module 6 – Biological control	• van Emden and Service, Chapter 7	• Discussion 6 • Quiz 6
7/June 20 – 24	*No classes – Summer break*		
8/June 27 – July 1	Module 7 – Insect pathogens	• van Emden and Service, Chapter 8	• Discussion 7 • Quiz 7 • Exam 2
9/July 5 – 8	Module 8 – Genetic control and area-wide management	• van Emden and Service, Chapter 9	• Discussion 8 • Quiz 8
10/July 11 – 15	Module 9 – Attractants, repellents, and pheromones	• van Emden and Service, Chapter 10	• Discussion 9 • Quiz 9
11/July 18 – 22	Module 10 – Host plant resistance	• van Emden and Service, Chapter 11	• Discussion 10 • Quiz 10
12/July 25 - 29	Module 11 – Physical measures	• van Emden and Service, Chapter 12	• Discussion 11 • Quiz 11
13/August 1 - 5	Module 12 –Concepts of pest and vector management	• van Emden and Service, Chapter 12 and 13	• Discussion 12 • Quiz 12 • 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.

COURSE POLICIES

Attendance Policy
This is an online class. Students are, therefore, required to view the weekly narrated lectures and the associated readings each week. You will NOT be allowed to take the exam after the exam date *unless prior arrangements have been made.* Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Course Requirements
There are 3 examinations, 12 graded discussions, 12 quizzes, and a pest management report (required for graduate students only) to complete the course requirements.

Examinations
There are 3 examinations throughout the course. The examinations are divided by course content. All examinations will be 50 questions, multiple choice, and each is worth 150 points.

> Exam 1: Modules 1 through 4
> Exam 2: Modules 5 through 8
> Exam 3: Modules 9 through 13

Each exam will be made available and accessible in Canvas from 8:00 am to 11:59 pm EST on Friday of the exam week. You must have a Gatorlink account to access the exams. The exams are proctored using Honorlock. This requires Google Chrome and the Honorlock Chrome Extension. The computer being used must have a camera and no outside materials or notes are allowed during the exam. You will be asked to lock your browser. You may not cut and paste information or consult current or former students for answers. There is a time limit for the exams, and once you begin the exam, you will have 60 minutes to complete it in a single session, so do not open the exam until you are ready to complete it. Grades will be posted immediately following the exam using the e-learning grade book.

Quizzes
There are 12 quizzes (10 points each) throughout the course. The quizzes will consist of 5 multiple choice questions. The quizzes will be made available and accessible in Canvas from 8:00 am to 11:59 pm EST on Friday of the quiz week. Once you begin the quiz, you will have 5 minutes to complete it in a single session, so do not open the quiz until you are ready to complete it.

Discussions
There are 12 discussion assignments (10 points each) throughout the course. All students are required to respond to the prompts provided for the weekly discussions. Students must cite the sources for the facts they use to support their reasoning. There must be at least one citation from peer-reviewed literature outside class modules or notes. Students may, in addition, cite educated and reliable sources such as opinions, technical reports, websites, and press releases to support

their reasoning. Students are also required to respond to at least one of the posts made by other students in the course for each discussion. You will not receive any grade if you do not post at all or if you simply post "I agree". Each discussion assignment will be open for one week.

Pest Management Report (required for graduate students only)
For the project report (150 points), students will present an analysis of a pest management technique(s) for a pest or pest complex that is of medical or agricultural importance. The components of the project report should include:
- An abstract – concise and not more than 250 words
- A description of the insect pest problem, including the pest biology, history, monitoring techniques, and economic importance (pest impact)
- The pest management options available, including the implications of each for pest management
- List of references

You are to submit your topic to the instructor on or before the topic submission due date. The report should be between 8 - 10 pages in length (including the title page, references, tables and/or figures). It should be double-spaced, size 12 Times New Roman with 1 inch-margin. The references should be at least 5, from primary literature, and must be according to the Journal of Integrated Pest Management style. Instructions on how to structure the report and the rubrics for evaluation 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. The reports will also be peer-reviewed by other students in the class. You are, therefore, required to post your report in Canvas for the instructor and other student groups to read and evaluate.
Overall, report evaluations will be as follows:
- Evaluation by the instructor (100 points) - The instructor will evaluate each of the reports.
- Evaluation of report by peers (20 points) - Each report will be evaluated by two other students in the class using a rubric. The scores from these two other students for that report will be averaged
- Submission of evaluations of peers' reports (20 points) - Each student must read reports submitted by other students in the class and submit their evaluations.

Extra Credit
There is no extra credit offered for the course, but the points for the Discussion posts do add up. Students are advised to submit posts even if they are late for at least a few points. Late submissions will be marked down by 0.5 points for each late day of submission.

Additional help:
Since this is an online course, office hours will be on Fridays at 12 pm via Zoom. 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

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
Discussions		10 each	120	10 each	120
Quizzes		10 each	120	10 each	120
Exams		150 each	450	150 each	450
Pest Management report (graduate students only)	Evaluation by the instructor	n/a	n/a	100	100
	Evaluation of report by peers	n/a	n/a	20	20
	Submission of evaluations of peers' reports	n/a	n/a	20	20
Total			690		830

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

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.

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

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

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.

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/