

Advanced Medical and Veterinary Entomology 6665

Fall 2018 Syllabus

Instructor: Dr. Phil Kaufman, pkaufman@ufl.edu Tel: 352-273-3975

Meeting time and place:

Lecture: 2nd Period Mon/Wed (8:30 – 9:20 AM), 1031 Entomology Nematology Building

Course description:

Advanced Medical and Veterinary Entomology is a 3-credit class that presents current information on the pests that have and continue to plague humans and animals. This course will explore the arthropods of importance in human health and those that impact livestock production, companion animals and wildlife through direct attack and disease transmission. It will include information on their biology, ecology, potential for disease transmission and management. Students will learn to identify the common pests and the principles of epidemiology and pest management.

The factors involved in the epidemiology of vector-borne diseases, host, parasite, vector and reservoir, will be stressed, as this is the recurrent theme in medical entomology. Students will be encouraged to share their own experiences throughout the course.

Learning Objectives: Students who have completed this course will be able to:

1. Define and compare the primary vectors of medical entomology.
2. Identify the major pests of veterinary entomology and provide pest management solutions.
3. Explain the reasons underlying the major diseases outbreaks in human history, and relate to why these outbreaks occasionally occur in today's modern world.
4. Explain and support the principles of Integrated Pest Management in livestock systems.
5. Compare and contrast the life-history strategies used by major vector and pest species of medical and veterinary importance.
6. Discuss the principles of vector-borne epidemiology
7. Assess the likelihood of new approaches in solving humanities vector-borne pathogen challenges.

Textbook:

Required: Mullen, G. and L. Durden, (eds), *Medical and Veterinary Entomology*, 2nd Edition, Academic Press, London. This text will be held in reserve at the Marston Science Library and is available electronically through Canvas (Course Reserves) and the library.

Suggested: (for those highly interested in Medical Entomology) Eldridge, B.F. and J.D. Edman, *Medical Entomology: A textbook on public health and veterinary problems caused by arthropods*, Kluwer Press, Boston may be useful for those students for whom this field is a career choice.

Both texts will be held in reserve at the Marston Science Library.

Students are responsible for reading relevant materials in the Mullen and Durden text and any distributed readings.

CANVAS

This course utilized the CANVAS system at the University of Florida.

<https://elearning2.courses.ufl.edu/portal> Course materials, including PowerPoints (as PDF's) will be placed on this site for full student access. The instructor reserves the right to remove these files at his discretion and will do so if attendance at lectures is poor. Additionally, student grades will be posted as they are finalized.

Office Hours: Dr. Kaufman will be available to students by appointment in Room 3213.

pkaufman@ufl.edu Tel: 352-273-3975.

Grading: This course does NOT utilize “minus” grades. Although the following link is for the undergraduate catalog, it applies to graduate students. The information on UF’s grading policies can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

The grading scale for this course is as follows:

Grading scale (%)

Points to Achieve Grade	Percentage	Grade
414	90-100	A
405	88-89.999	B+
368	80-87.999	B
359	78-79.999	C+
322	70-77.999	C
276	60-69.999	D
<276	<60	E

Entomology 6665 is a course designed for graduate students in Entomology or related disciplines. The requirements for this course are greater as outlined below.

ENY 6665	Point Value	Total
Lecture Tests (3)	100 each	300
Final Exam (optional)	100	100
Featured Creatures	100	100
Discussion essays (3)	10 each	30
Discussion participation	20	20
Online Quizzes (2)	5	10

Specific Lecture Evaluations: Your grade on the lecture course (ENY 6665) will be based on a possible 450 points (3 of 4 tests/exams will count) and determined by the percentage breakdown presented previously (Grading Scale). You will be provided with two online lectures to watch out-of-class. Each quiz that accompanies these will provide you with up to 5 points. A deadline is attached to each of these, so watch for the announcement – probably within 7 days of the posting. The final examination

is comprehensive. Guest lecture material is fair game for tests and some portion of all of their materials will be included on appropriate tests. Be aware that not all guest lectures will provide PowerPoint files. Regardless of availability, all content delivered in the lecture may appear on tests.

Grading Policy: Lecture tests will consist of multiple choice, short answer and essay questions. Make-up tests must be approved by the instructor, scheduled **prior to the test**, and are given only under special circumstances. To be fair to all students, extra credit opportunities are not allowed. **All graded material remains the property of the instructor, and any unreturned exam, quiz or assignment will result in a grade of zero.**

All deadlines are Noon of the day that they are due.

Featured Creatures Paper Requirements: Each student taking ENY 6665 is required to develop a “Featured Creatures” (FC) fact sheet on a pest of Medical or Veterinary importance that is NOT CURRENTLY AVAILABLE in or planned for FC (<http://creatures.ifas.ufl.edu/>). Dr. Kaufman maintains a list of immediate “needs” by the department. Students must upload their first draft, peer-review, and final draft documents to CANVAS. The marked manuscript (from the peer-review) should be hand-delivered to Dr. Kaufman (unless you can scan these). Use the “assignments” feature of CANVAS to complete the uploads/assignments.

All deadlines are Noon of the day that they are due. Late submissions will be docked 10% on the individual component grade for each 24 hrs after **each** deadline. Additional information on writing the FC article and examples of topics will be provided in class.

The Featured Creatures article grade will be determined through a multi-step evaluation process that includes topic approval, submission of a 1st draft, return of a Peer Review evaluation and submission of a final draft. Please be sure to read the following to ensure that you are meeting the deadlines. Failure to adhere to the schedule and process will result in lost points. Click [here](#) for the FC-specific guidelines. A [formatting guideline](#) with helpful hints is available

1. Students must visit with Dr. Kaufman to receive approval for their topic BEFORE proceeding. **The topic must be chosen by August 29, 2018.** (5 pts.)
2. To be eligible for full credit, the first draft must be submitted to Dr. Kaufman in electronic form (Canvas ASSIGNMENTS link) by **September 12, 2018**. These are expected to be nearly complete documents with significant material provided in each category. Dr. Kaufman will review these drafts for effort, form and overall progress. (25 pts.)
3. At this point, each student will perform an anonymous “Peer Review” of another student’s 1st draft document. Further instructions and guidelines for the evaluation will be provided in class. Each Peer Reviewer must return their review to Dr. Kaufman (2-copies) on **September 19, 2018**. Please be aware that these reviews will be returned to the students for consideration and incorporation of comments. You will be evaluated the thoroughness and professionalism of your review of another students document. (25 pts.) Click for [peer review specific instructions](#). This link has provides an [example review](#) and an example "[response to review](#)".
4. Final drafts of papers are due on **October 10, 2018** You will be evaluated on the completeness of the overall document, thoroughness of the subject matter, incorporation of appropriate original artwork and the incorporation (or not) of suggested revisions (not all

suggestions must be incorporated, but you must justify when comments are not incorporated). (45 pts.)

Discussion Session: (50 total points)

A discussion session will meet for ENY6665 students. Attendance at and participation in this session will yield up to 20 points toward the student's grade. The meeting time is TBD by student schedules. The preliminary meeting time and date are Period 3 on Mondays. Students will interact with Dr. Kaufman in discussions of current topics of importance to the class, reviews of literature and strengthening their FC articles. Students will be provided the opportunity to demonstrate their understanding of the literature and topics discussed as well as their writing skills through the preparation of 3 short essays (10 pts each).

Attendance: Students are expected to attend each class period and stay for the entire period. The laboratory is several periods long and students are allowed to leave at their leisure. Considerable material is provided in the laboratory session and students who do the best in this course are those that utilize this unique opportunity to study specimens in depth. Additionally, students that do stay for the entire period are welcome to examine specimens outside of the laboratory periods in Dr. Kaufman's laboratory (provided certain limitations discussed in class).

Tentative Lecture calendar:

Lecture	Date	Topic
1	Aug. 22	Introduction. Impact of arthropods on human/animal health,
2	Aug. 27	Epidemiology (in class presentation) Vector-borne pathogens ONLINE: Perspectives on Med/Vet Entomology (Online quiz 1)
3	Aug. 29	Control, economic damage and eradication (FC Topics due)
4	Sept. 03	Labor Day – No Class
5	Sept. 05	Spiders, scorpions, Hymenoptera and minor orders ONLINE: Lepidoptera, cockroaches, beetles (Online quiz 2)
6	Sept. 10	True bugs – Chagas Disease
7	Sept. 12	Lice – Livestock and Poultry (FC 1st draft due)
8	Sept. 17	Lice – A human problem as well!!!
9	Sept. 19	Fleas – Plague Pandemics (FC Peer Review due)
10	Sept. 24	Black Flies, Sand flies and Biting midges (<i>Leishmania</i>) Test Review
11	Sept. 26	Mosquitoes –Importance and Ecology.
12	Oct. 01	Test 1 (Lecture's 1 - 10)
13	Oct. 03	Mosquitoes –Yellow Fever, Dengue, Zika
14	Oct. 08	Mosquitoes– West Nile virus, other Encephalitides virus' and disease developmental models. Guest Lecturer: Dr. Jonathan Day
15	Oct. 10	Mosquitoes – Malaria and Filariasis (FC articles due)
16	Oct. 15	Horse flies, Deer Flies, Soldier Flies
17	Oct. 17	Muscoid Flies–Importance, Ecology & Role in food-borne illness Test Review
18	Oct. 22	Test 2 (Lecture's 11, 13-16)
19	Oct. 24	Muscoid Flies – house, horn, stable and face Confinement livestock flies (video) Watch On Your Own
20	Oct. 29	Tsetse and Sheep Ked
21	Oct. 31	Myiasis, bot flies, and others
22	Nov. 05	Myiasis, bot flies, and others
23	Nov. 07	Mites and Ticks
24	Nov. 12	No Class: Veterans Day
25	Nov. 14	Forensic Entomology. Guest Lecturer: Dr. Jason Byrd (no PPT provided)
26	Nov. 19	Mites, Ticks and Disease
27	Nov. 21	No Class – Thanksgiving break
28	Nov. 26	Ticks and Humans.
29	Nov. 28	Ticks and Livestock - Final Test Review
30	Dec. 03	Test 3 (Lecture's 17, 19-29)
31	Dec. 05	Final Test Review
Final Exam	TBD	TBD

Additional General Information: The following information applies to all courses at the University of Florida.

Absences and Make-Up Work

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>.

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, 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 assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to 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/honorcodes/honorcode.php>.

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 crises or personal problems that interfere with their general well-being are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

· *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,*
www.counseling.ufl.edu/cwc/

Counseling Services
Groups and Workshops
Outreach and Consultation
Self-Help Library
Training Programs
Community Provider Database

· *Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/*

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/

Plagiarism

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>).**

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

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.