

# INSECT BEHAVIOR

COURSE NUMBER: ENY 4905/6905

CREDIT HOURS: 2

SPRING 2015

ONLINE

**COURSE DESCRIPTION:** This course will provide a theoretical and empirical overview of insect behavior ranging from physiology underlying behavior to the evolution of behavioral diversity. We will rely heavily on readings from the primary literature to examine what we currently know about insect behavior and the diversity of approaches for studying it.

**INSTRUCTOR:** Dr. Lisa Taylor  
2211 Steinmetz Hall (office)  
Department of Entomology and Nematology  
[Lisa.taylor@ufl.edu](mailto:Lisa.taylor@ufl.edu)  
Office phone: 352-273-3937

**OFFICE HOURS:** By appointment (email to schedule a time). Meetings can be either in person (in my office) or via Canvas.

**COURSE WEBSITE:** <http://lss.at.ufl.edu>

**REQUIRED TEXT:** There will be no required textbook for this course; each week you will be assigned papers from the scientific literature (posted in Canvas). However, I highly recommend the following textbook, which provides excellent coverage of many of the general topics we will discuss in this course.

- Alcock, J. 2013. *Animal behavior: an evolutionary approach*, 10<sup>th</sup> edition.

**PREREQUISITE KNOWLEDGE AND SKILLS:** At least one semester of a college-level biology or entomology course is recommended, but not required. We will rely heavily on readings from the primary literature which may be challenging for students without this science background. If you are unsure if you meet this requirement, please contact the instructor before the course to discuss your situation ([lisa.taylor@ufl.edu](mailto:lisa.taylor@ufl.edu)).

**COURSE LEARNING OBJECTIVES:** By the end of this course, students will be able to:

1. Explain how insect behavior has evolved to make insects one of the most successful and diverse taxonomic groups on the planet (e.g., explain how they find food, how they find mates, how they protect themselves from predators, etc.)
2. Observe insect behavior in nature and develop your own hypotheses for the function of the behaviors that you observe

3. Describe methods employed to study insect behavior and be able to propose specific experiments to test hypotheses
4. Evaluate and critically assess articles from the primary literature in the field of insect behavior
5. Describe how scientists are using our modern understanding of insect behavior to solve human problems (e.g., pest management, design of cities) and be able to think creatively to propose new ideas

**INSTRUCTIONAL METHODS:** All course material will be available through Canvas, separated into weekly modules. Within each weekly module, you will watch narrated PowerPoint presentations, read assigned articles, participate in online discussions, and complete a quiz. In addition, you will complete two assignments over the course of the semester (insect behavior video assignment and Ted talk review assignment). Finally, there will be a midterm and final (cumulative) exam.

**COURSE COMMUNICATIONS:** If you have questions either before or during the course, feel free to email me directly at any time or send me a message via Canvas. If you have general questions that you think might be relevant to other students in the course (i.e., questions about assignments, course logistics, or course material), I'd encourage you to post such questions as a discussion in Canvas.

## TENTATIVE COURSE SCHEDULE (ONLINE, SPRING 2015):

**FINAL EXAM:** TBA

Week	Topic	Graded activities due this week	Quizzes and exams this week
1	introduction and framework for studying behavior	contribute to discussion 1	quiz 1
2	social behavior and insect societies	respond to discussion 1	quiz 2
3	communication systems (visual, chemical, acoustic, tactile)	contribute to discussion 2	quiz 3
4	insects as prey: defenses against predators	respond to discussion 2, insect behavior video due	quiz 4
5	insects as predators and parasites	contribute to discussion 3	quiz 5
6	plant-insect interactions	respond to discussion 3	quiz 6

7	navigation, dispersal, and habitat selection	contribute to discussion 4	quiz 7
8	finding mates and courtship	respond to discussion 4	quiz 8, midterm exam
9	SPRING BREAK		
10	diversity of insect mating systems	contribute to discussion 5	quiz 9
11	student-driven topics (TBD)	respond to discussion 5, Ted talk review due	quiz 10
12	parental care	contribute to discussion 6	quiz 11
13	hormones and behavior	respond to discussion 6	quiz 12
14	applying insect behavior to pest management	contribute to discussion 7	quiz 13
15	using insect behavior to inspire human design	respond to discussion 7	quiz 14
16	course wrap up and review	contribute to discussion 8	final exam, course evaluations

**Disclaimer:** This syllabus represents my current 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:

**GRADES:** The grading scheme for this course is very straightforward and transparent. All assignments and exams will be returned within one week, meaning that at any point in the semester, you should be able to calculate your current grade for the course. To be fair to all students, I follow the rules and point system laid out in this syllabus very closely. If you ever have a question about a grade you receive from me, I would be happy to discuss it. I do ask that you address all questions about grading of particular assignments within two weeks of receiving a grade on that assignment.

Your final grade for this course will be based on the percentage of points that you earn out of a possible total of 412 points. The point breakdown is the following:

- Midterm exam: 100 points
- Final exam (cumulative): 100 points
- Weekly online quizzes (14 quizzes at 7 pts each): 98 points
- Weekly online discussions (8 discussions at 8 points each): 64 points
- Insect behavior video assignment: 25 points
- Ted talk review assignment: 25 points

- Extra credit assignments. There may be occasional extra credit assignments, but do not rely on them. Be sure to take advantage of every opportunity to earn points on the above assignments.

Grades will be calculated as follows:

A 100-90%

B+ 89-85%

B 84-80%

C+ 79-75%

C 74-70%

D+ 69-65%

D 64-60%

E 59% and below

*For information on current UF policies for assigning grade points, see:*

<http://www.isis.ufl.edu/minusgrades.html>

#### **ATTENDANCE AND MAKE-UP POLICY:**

As an online course, there are no requirements for you to physically attend class at a specific time. However, participation in discussions and other activities *within particular timeframes* (typically, within a window of one week) will be required.

Arrangements to make up work, including exams, must be made by contacting the instructor at least one week BEFORE the due date. In cases of unforeseen emergencies (e.g., medical emergency documented with a doctor's note), contact the instructor as soon as possible. Such situations will be handled on a case-by-case basis.

Requirements for 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>

**QUIZ/EXAM POLICY:** Quizzes will be taken online and are 'open-book', meaning you can use whatever resources are available to you (including the internet). While you are free to discuss the content of quizzes, all submitted written material must be your own work (written individually and in your words). Quizzes must be completed by the posted deadline; late quizzes will earn no credit.

Exams will be closed-book, time-limited, and must either be taken in the classroom (on UF's main campus at a designated time and location for each exam) or you must arrange to have them proctored individually at another location. More details on exam proctoring procedures will be provided during the first week of class.

**POLICY ON LATE ASSIGNMENTS:** Late assignments (including discussion posts) will be accepted, but will be deducted 20% per day late. This means that assignments that are 5 (or more) days late will earn no credit. Unless otherwise indicated, assignments must be submitted to canvas by 11:59pm on the day they are due. As stated above, *quizzes must be completed by the due date; late quizzes will not be accepted.*

**COURSE TECHNOLOGY:** This course will be administered through Canvas (<http://lss.at.ufl.edu>). All students must have access to a computer with a reliable internet connection (a high speed connection is recommended). Please be sure to have a backup option in case your computer or internet connection fails. See the 'Getting Help' section below for technical assistance with Canvas.

Students will need access to a video camera for the insect behavior video assignment; smartphone cameras are sufficient, as long as it can capture the behavior of the insect that you choose for the assignment. If you will not have access to a video camera, please let the instructor know during the first week of class so that we can make arrangements.

## UF POLICIES:

**UNIVERSITY POLICY ON ACCOMMODATING 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.

**Disability Resource Center**  
0001 Reid Hall, 352-392-8565,  
[www.dso.ufl.edu/drc](http://www.dso.ufl.edu/drc)

## 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>

**NETIQUETTE: COMMUNICATION COURTESY:** All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Take a moment to read this netiquette guide for online courses: <http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

#### **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>.

Each online distance learning program has a process for, and will make every attempt to resolve, student complaints within its academic and administrative departments at the program level. See <http://distance.ufl.edu/student-complaints> for more details

#### **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.

#### **GETTING HELP:**

**For issues with technical difficulties for E-learning in Canvas,** please contact the UF Help Desk at:

- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)

- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

\*\* Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help>.

### **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/](http://www.counseling.ufl.edu/cwc/)

- Counseling Services
- Groups and Workshops
- Outreach and Consultation
- Self-Help Library
- Wellness Coaching

#### **Career Resource Center**

First Floor JWRU, 392-1601, [www.crc.ufl.edu/](http://www.crc.ufl.edu/)