# **WELCOME TO ENY 3005 and ENY 5006**



# PRINCIPLES OF ENTOMOLOGY and Graduate Survey of Entomology Online Course Fall 2023

Instructor: Dr. Rebecca Baldwin, BCE

Office: 2208, Steinmetz Hall

1881 Natural Area Drive Box 110620

Gainesville, FL 32611 Phone: 352-273-3974 E-mail: baldwinr@ufl.edu

#### **Graduate Teaching Assistant:**

Valerie Nguyen: Nguyen.v@ufl.edu

Assistant TA: Grayson

Traweek: <a href="mtraweek@ufl.edu">mtraweek@ufl.edu</a> Canvas login to access course:

http://elearning.ufl.edu

#### Office Hours:

Wednesday 2:00-3:30 by Zoom or in Steinmetz 2208

(You may park at Steinmetz after 3:30.)

\*No office hours during holidays or on Nov. 8.

Zoom link can be found in Canvas under "Zoom Conferences"

Office hours are in Eastern Time.

You may also schedule an appointment at:

https://calendly.com/ufbugs/30min?back=1&month=2023-01

#### How to E-Mail:

Please e-mail the TA and copy the instructor. We will attempt to

answer e-mails in 48 hours during the week. Please include ENY3005 5006 in the subject line.

#### **REQUIRED TEXTBOOK (Book or e-book can be rented or purchased.)**

# Daly and Doyen's Introduction to Insect Biology and Diversity

Third or Fourth Edition (4<sup>th</sup> edition is available through the UF Bookstore or as an e-book) James B. Whitfield and Alexander H. Purcell III ISBN# 978-0-19-538067-5, Oxford University Press

This is the text that will be referenced in the web lecture. There are required readings listed in the course outline for each week, so you will need access to the textbook. This book contains keys to insect orders and 400 common families, so will be useful in the lab as well. Feel free to rent or share a text, but you will need access to the material. (There is a grasshopper in flight on the front for the third edition and a parasitic wasp laying eggs in a caterpillar on the fourth edition.)



https://redshelf.com/book/1714719/daly-and-doyens-introduction-to-insect-biology-1714719-9780190086275-james-b-whitfield-alexander-purcell-iii

elSBN-13: 9780190086275. (~\$60 for one semester)



**OPTIONAL** (These are good reference books, especially for the lab.)

#### A Field Guide to the Insects of North America North of Mexico



Peterson Field Guide Series, Borror and White. ISBN-10 0395911710

Big bug bang for the buck. This is a super little field guide that you may use in the laboratory and will refer to often in the years to come.

## Photographic Atlas of Entomology and Guide to Insect Identification (~\$45). J. Castner

The book contains beautiful color <u>photographs</u> that will greatly aid in the identification of common insects. (Note: The taxonomic keys have <u>not</u> been updated to current taxonomic nomenclature that is found in your textbook, so you will need to use your text and lecture notes to update this guide. Please relate the lecture list of orders for your insect collection and on exams.

Janes L. Corner

#### WHAT YOU WILL LEARN

By the end of this course, you should be able to pick up a common insect (a feat in itself for some people) and tell your friends what kind it is, how it moves, how it eats and digests its food, why it looks the way it does, where it usually lives, whether it is harmful to people or animals, how it's controlled if it is a pest, and how it and other insects impact our lives. Insects are the most diverse group of animals on our planet, so this class will also explore broad concepts in biology.

General Class Objectives:

- 1. Describe characteristics of the major insect orders.
- 2. Explore the general external and internal anatomy and physiology of insects.
- 3. Recognize the characteristics of eusociality.
- 4. Analyze Integrated Pest Management, Pesticide use, and Biological Controls.
- 5. Realize the impacts of insects on humans and the environment.
- 6. Propose area wide protection plans against pests and diseases.



#### **ENY 3005 COURSE OUTLINE**

Most assignments are due on Sunday, but exams and quizzes are on weekdays. <u>Most non-exam assignments are open for at least a week and may be submitted early.</u> All but the last journal assignment may be submitted late (up to 5 days) but will be assessed a minimum of a 30% grade deduction for each late submission.

Unit#	Action	POINTS	%	DATE DUE by
				11:59 PM
	Classes Begin			August 23
Pre -	Syllabus Quiz	10	2	Sunday, Aug. 27
1	Discussion Post Introduction/Bug Story with Peer Response – Module 1	5	1	
2	Module 2 - Journal Assignment – Wing Evolution	10	2	Sunday, Sept.3
	Module 3	10	2	Sept. 1-5 Zoom
	Zoom Group Meetings with Dr. Baldwin about Class Projects			by appointment
	ENY 3005 (undergraduates)- submit <u>title</u> of the group project, select a group			based on group
	<u>leader</u> , and indicate the creative <u>group name</u> . <u>All members of the group must</u>			availability.
	be present. ENY3005: Those who do not attend will be removed from the			
	group.			
	Calendly Registration by Group #s (Team names to be added after meeting.) –			
	Check Canvas for your group members (Click People then Groups).  Note: Graduate research projects (ENY5006) This meeting for graduate			
	students will be for introductions and to consider a researcher to interview.			
3	Insect Order Quiz	15	3	Friday, Sept.15
4	Journal Assignment –JH Mimic (Module 4)	10	2	Sunday, Sept. 15
7	(Module 5)	10	_	24
1-5	Online Exam Review Session – Units 1-5 (8:00 PM Online - Optional)			Thurs., Sept. 28
1-5	Lecture Exam I (Units 1-5)	100	20	Friday, Sept. 29
	ENY 3005 – Group project outline with member responsibilities, references,	20	4	,, ,
	audience choice and presentation time for group (submitted by leader)	(group)		Sunday, Oct. 8
	<b>ENY 5006-</b> Individuals submit their project title, interview name and interview	(individual)		-
	questions. Please see Canvas for details.			
6-7	Complete Lecture Modules 6 and 7 (no journal assignment)			Sunday, Oct. 8
8	Complete Module 8 - Journal Assignment –Social Insects	10	2	Sunday, Oct. 15
9	Complete Modules 9 and 10			Sunday, Oct. 22
	Online Exam Review Session – Units 6-10 (8:00 PM Online)			Thurs., Oct. 26
6-10	Lecture Exam II (Units 6-10)	100	20	Friday, Oct. 27
11	Module 11 - Journal Assignment – Parasites (Endoparasites vs Ectoparasites)	10	2	Sunday, Nov. 5
12-13	Modules 12 and 13			Sunday, Nov. 12
	<ul> <li>ENY 3005 Meet with group to finalize presentations.</li> </ul>			
	ENY 5006 Have interviews completed and have met with peers for			
	review.			
	ENY 3005 – Zoom Group Project Presentation, Submission, and Peer Reviews	75	16	Week of Nov 13
	(*Group signs up for presentation time. One time per group.)			by appointment

	Group members not present will receive no credit.			
	ENY 5006 Recorded Presentations (See Canvas for point distribution)			Week of Nov.
				20
14	Module 14 - Journal Assignment – Biological Control – Neighbor	10	2	Sunday, Nov. 26
15	Module 15			Sunday, Dec.3
11-15	Lecture Exam III (Units 11-15)	100	20	Monday, Dec. 4
	GRADING Scale: Percentage (0.5 and above will round up). TOTAL	490	100	
	A 89.5-100 B 79.5-86.4 C+ 76.5-79.4			
	C 69.5-76.4 D 59.5-69.4. E 0-59.4			



Web Lecture/Activity <u>Color Code:</u> Assignments Exam Readings/Lectures  Most Assignments/Discussions are due by Sunday night 11:59 PM EST.	
Week 1 Class Registration, Purchase class materials  In Canvas: Take syllabus quiz, Post introduction and reply  Unit 1 - Arthropod Classification  *Note: Some units are divided into several parts, so Unit 1 consists of 1.1 and 1.2. You should complete all parts of a unit before the end of the week.	Chapter 1
Unit 2 - Insect Evolution and Classification Journal Assignment - Wing Evolution Project Assignment - Meet with Dr. Baldwin	Chapters 2 and 16
Unit 3 - Insect Orders  Note — Having a good understanding of this lecture and the readings will give you an advantage in the lab and on the lecture, exam Be sure to invest the time in completing your readings and understanding how to identify insect orders by their characteristics. Complete study guide table.  Insect Order Quiz - Friday— online 8:00AM-11:59 PM (15 points)	Introductions to orders (first 2-3 pages) of Chapters 18-46 (~80 pages)
Unit 4 - Integument, Development and Reproduction Journal Assignment - JH Mimics	Chapters 3 and 4
Unit 5 - Maintenance and Movement *EXAM I - 8:00 AM-11:59 PM Units 1-5 (Optional EXAM REVIEW - Thursday 8:00 – 9:00PM EST)	Chapter 5
Unit 6 - Reception & Integration Group Project Outline due (20 points)	Chapter 6
Unit 7 - Getting Together: Insect Communication (Note that chapter 8 is split.)	Chapter 8
Unit 8 - Social Relationships Journal Assignment - Social Insects	Chapter 7
Unit 9 - Adaptations to Habitats	Chapter 8
Unit 10 - Plant and Insect Interactions *EXAM 2 - Units 6-10	Chapter 9
Unit 11 – Parasites and Hosts Journal Assignment - Endo-Ectoparasite	Chapter 10
Unit 12 - Insect Pest Management	Chapter 11 & 13
Unit 13 – Insecticides Unit 14- Biological Control Journal Assignment - Bio-Control – Neighbor Pest Problem	Chapter 11
Unit 15 - Medical Entomology Presentations (Group Projects for ENY3005 and Research Review for ENY5006)	Chapter 12
*EXAM 3 – Units 11-15 (These units build on information from previous chapters.) *If you need to take an exam on an alternate date, please arrange with Dr. Baldwin.	

#### **Assignments**

#### **Journal Assignments**

Your journal is a collection of clearly articulated answers to five assignments, each worth 10 points (300-word minimum). These assignments are fair game for the exam and will be graded by the week of the exam. Please see the assignment section (green) of the course outline for the units with journal assignments. **Assignments should be posted to the assignment link in Canvas and have a 300-word minimum (body) plus a works cited section.** *Please follow the due date on this syllabus.* Assignments are due by 11:59 PM Eastern Time on Sunday night. *If you miss a due date for the first four journals, you may make a late submission five days following the initial due date for partial credit.* The last journal does not have a late submission. Because of the class size, you may only receive feedback on the assignments if points are deducted. Grades will be posted the week following each due date.

#### **ENY 3005 Group Projects**

At the beginning of the semester, you will be assigned to a group. It is always nice to have people in the class that you get to know so you can go collecting together, study together, and ask questions of. You should use the Assignment tab, then click "Group" to correspond with your group members. I can track participation that way, but if you wish to use GroupMe or a similar app, feel free as long as your group agrees to communicate that way. Oh yes, you will also let us know who you are by introducing yourself with a Bug Story (I love getting to know you a bit.)

You will work with your group on a project. Review the assignment and grading rubric completely with your group. The key to the group project is communication, communication, communication! Communicate frequently!

To ensure that your group is working together and can agree on a plan of action, you will be required to submit a draft of your project. This will be submitted as an assignment just like the final project. Your team should click on the People tab, then Group to be able to chat about the topic. If you have a person icon next to your name, you are the assigned group leader. Each group leader should be sure all members of the team are participating in the chats. Each group will only submit one draft and one final project, so it would be wise for someone in each group to act as editor to be sure all the group submissions have the same format and flow properly. Someone will also need to be responsible for submitting the project for the group. Comments about the grade will go to each member of the group. The group leader should notify Dr. Baldwin of any member not communicating. If someone drops out of the group, the entire project will still need to be completed, so communicate often so you are aware of member responsibilities. Incomplete projects will receive a deduction.

#### Please be sure to include your group number and the list of participants from your group.

The final project will be due later in the semester. So, what should your group discuss and submit? For this draft, you will need to submit a title for your project, a rough draft (specific details) of what will be covered by each group member (subject matter and content) and a *list of at least 3 references per section (a minimum of 3 per section required for the final submission)* related to your topic, and one slide per person with the script in the notes section. Be sure your slides are professional, have bulleted points (not full sentences), include citations and photo captions, and have what you are going to say about that slide in the notes section. Do not tell us what you are planning to talk about, tell us exactly what you are going to talk about and associate references with each point. These can be online references, but should be a reliable source (museum, educational institution, research report, etc.). You may also want to use Google Scholar to find peer-reviewed research about your topic. At least one section of your presentation should include research on the topic. The introduction from research papers will give you some interesting information. Avoid using wiki and popular press articles. Go to the primary source. During your final presentation be sure to introduce who is going to cover what topic and have a good flow of information from one member to the next. Try to link the parts together. (As Richie discussed earlier, from the research by Koehler et al., we can see that ...)

**3005 Final Project and Peer Review-** Your group project will be uploaded to Canvas, by the group leader, before the end of the semester for peer review by your classmates. After the posts are made, each of you will evaluate two projects. The peer evaluations will be incorporated into the grade for the project. **Provide honest feedback** about the project (content, organization, structure, etc.) as the evaluations will be reviewed. **Constructive criticism can encourage more points for the group projects**. Do not simply give full credit when it is not due.

Generally speaking, you will have a journal assignment, a discussion, or exam each week of the semester. When citing sources, please use a standard format like MLA or use a scientific format like that of the Entomological Society of America, <a href="http://www.entsoc.org/pubs/publish/style/#References">http://www.entsoc.org/pubs/publish/style/#References</a> Cited. I am more concerned with content, so just be consistent with whichever format you select.

Research Review - <u>ENY 5006</u> - Select a recent research article that interests you, contact the author to request an interview, interview the author, then present an overview of the research and what you learned from the interview to your peers, then to the instructor. There will be a written portion to this assignment where you submit your interview <u>questions and the notes</u> from your interview, then an oral portion where you run a practice presentation with your peers, then present again to Dr. B for evaluation. <u>The presentation will contain a review of the research as well as knowledge gained from the interview.</u> Select a research article that is related to your graduate research or career path. If you do not receive a response after two attempts at contacting an author, please select another author or reference. Instructions for each portion of the project will be provided in Canvas.

#### **Finding Research Articles:**

You can visit the UF library page and go to quick links to find great databases for articles. Try <a href="Science Direct">Science Direct</a> or Google Scholar to find some full articles online! If you are off campus, the UF library has information for remote use at <a href="http://www.uflib.ufl.edu/distance/">http://www.uflib.ufl.edu/distance/</a>. UF has a very nice library system, so be sure to log in before doing your web surfing for articles. You should not have to pay for articles you need. If you find an article that won't allow free access, call the UF distance education librarian (link above) or use the interlibrary loan system. You will be graded on content and quality of sources as well as organization and format.

ENY 3005 and 5006 - Remember, you must review and comment on the research results from your reference(s), not just give an overview of topic facts.

#### **Exam and Quiz Information -**

**Practice Exam -** There will be a practice exam posted online one week prior to the first exam so you can see the exam format. This exam is brief and will not be graded.

**Review Session** - There will be a review session online the night before the first exam at 8:00 pm (EST). There is no scheduled review session for the third exam. The chat will last for 1 hour and you may post questions to be answered in real time from the instructor/TA.

**EXAMS**—Exams will be delivered within Canvas and will be available from 8:00 AM until 11:59 PM Eastern Time. **(You must begin the exam by 10:50 PM Eastern Time to receive your full-time allotment.)** There will be three exams and a Quiz during the semester. Exam 1 covers material from units 1-5, Exam 2 will cover material from units 6-10, and Exam 3 will cover units 11-15.

Exams are to be taken individually. No collaboration is allowed. The instructor reserves the right to submit all assignments to "Turn It In" for plagiarism evaluation. Exams will be proctored by Honorlock, so a webcam and the Chrome Extension must be used. Exams are not to be copied, recorded, or shared in any way. The exam will consist of multiple-choice, matching, fill in the blank, and short answer/essay questions. You will see the questions one at a time but may go back to review previous questions if time allows. You will be allowed approximately 1 hour for each exam, and printed study quides, completed individually (nothing digital) may be used during the exam. Instructions are in Canvas. Grades will be posted one week following the exam using the online grade book. To review exams, you will need to attend office hours, or contact the instructor during office hours to make an appointment. (No cell phones are allowed to be out or in use during the exam.)

**NO MAKE-UP EXAMS WITHOUT PRIOR APPROVAL** - If you would like to take your exam on a day prior to the listed exam date or time, please contact your instructor at <u>least one week in advance</u>. You will not be allowed to take the exam after the exam date unless prior arrangements have been made. If you are ill, you need to contact the instructor before the exam. A doctor or infirmary must confirm illness before you may schedule a make-up exam.

Troubleshooting for online exams - 352-392-HELP

Because we are depending on computers for the online exams, problems may occur. Don't panic. I know things happen, and we will do what we can to fix the problem. Here are a few pointers. If you get disconnected from the internet while you are taking the exam, leave your browser open and then reconnect. You should be able to pick up the exam where you left off. Be sure to save answers as you go. If you still have difficulties, please call the help desk (352-392-HELP), then inform your instructor. Be sure to call the help desk to document your issue before contacting the instructor. They will create a "trouble ticket" and give you a receipt so you have documentation of the problem.

Make sure to try out the practice exam to see that you can log in and properly view the exam questions.

Remember – No part of the exam should be copied, photographed, saved, or shared.

This includes taking any screenshots.

#### LAB INFORMATION - The lab is a required as a co-requisite. ENY 3005L and ENY5006L

The 1 credit hour lab part of the course is offered for all ENY 3005 and 5006 students, and you **must** register for the lab <u>separately</u>. (You may remain in the lecture without the lab if you cannot take it this semester.) For those of you off campus, you will either attend a lab scheduled by your local UF/IFAS Research and Education Center or you will register for an online lab through the Entomology Department - (352) 273-3912. Both on-campus and distance students will have a Canvas link for the lab. This is listed as ENY3005L/5006L. The "L" indicates the lab section. The lab has a separate syllabus, so be sure to communicate with your lab TA and copy me if you have any questions. Students taking classes in Gainesville must take the on-campus lab. The online sections are departmentally controlled and are limited to those taking the class away from Gainesville. \*You must return any UF lab equipment to your lab TA when you turn in your collections.

\*Insects collected must be collected legally (no collecting in state or national parks) and must include accurate locality labels including the collector's name. Purchased insects are not allowed. Collections are marked each semester as they are graded and specimens may not be recycled for future collections (unless allowed on the syllabus). Collections submitted with any falsified label information, or marked, purchased, or illegally collected specimens will be marked as a zero, and the student refereed to the Dean of Students Office for academic dishonesty.

It is illegal to collect specimens in State or National Parks. Collecting in National Forests, like the Ocala National Forest, is legal and allowed.

#### **UF POLICIES**

**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

**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.** 

Work may be submitted to Turn-it-In anti-plagiarism software, so be careful about plagiarism and citations. You are expected visit the UF Student Honor Code website at <a href="http://www.dso.ufl.edu/studentguide/studentconductcode.php#s40431">http://www.dso.ufl.edu/studentguide/studentconductcode.php#s40431</a> for more information on plagiarism. Any plagiarized work will receive a zero and may be submitted to the graduate committee and UF judicial affairs.

For more information regarding the Student Honor Code, please see: <a href="http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php">http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php</a>. Copying, screen printing, photographing, or viewing another student's exam materials is a violation of the UF Honor Code.

Plagiarism in this class will not be tolerated. All work submitted must be in your own words and proper citations must be given for sources of ideas.

Besides group projects, all other graded coursework must be completed independently. Sharing of exam or quiz information will be considered academic dishonesty and a failing grade will be assigned. All students, those giving and receiving information will be referred to the Dean of Students for Academic Dishonesty.

#### **Class Evaluations**

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation

period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

**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, <a href="www.counseling.ufl.edu/cwc/">www.counseling.ufl.edu/cwc/</a>
 Counseling Services, Groups and Workshops, Outreach and Consultation, Self-Help Library, Training Programs, Community Provider Database Career Resource Center, First Floor JWRU, 392-1601, <a href="www.crc.ufl.edu/">www.crc.ufl.edu/</a>

#### Services for Students with Disabilities -

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. Visit, <a href="www.dso.ufl.edu/drc/">www.dso.ufl.edu/drc/</a> to get started with the Disability Resource Center. It is important for students to share their accommodations with their instructor and discuss their access needs as early as possible in the semester.

### **UF Online Class Recording Policy**

Our occasional synchronous class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized sharing of recorded materials is prohibited except as allowed by Florida House Bill.

**Distance Education** - 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 <a href="http://distance.ufl.edu/student-complaints">http://distance.ufl.edu/student-complaints</a> for more details.