WELCOME TO ENY 3005/5006
PRINCIPLES OF ENTOMOLOGY and
GRADUATE SURVEY OF ENTOMOLOGY
Online Course    Summer 2020

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Teaching Assistant:
Purity Muthomi - pmuthomi@ufl.edu

Please Zoom for a visit!
Office Hours:
Monday or Wednesday 3:00-4:00 by Zoom
I would appreciate a call or e-mail to set up an appointment.

E-Mail:
Please e-mail the TAs and copy the instructor. We will attempt to answer e-mails in 48 hours during the week. Please include ENY 3005 or ENY 5006 in the subject line.

Class Canvas url: http://elearning.ufl.edu

REQUIRED TEXTBOOK
Daly and Doyen's Introduction to Insect Biology and Diversity  Third Edition
James B. Whitfield and Alexander H. Purcell III

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 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.

OPTIONAL (These are good reference books and can really help you out in lab.)

A Field Guide to the Insects of North America North of Mexico
Peterson Field Guide Series, Borror and White.
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
J. Castner
This is a great reference book. The book contains beautiful color photographs that will greatly aid in the identification of common insects. (Note: The taxonomic keys have not been updated to current taxonomic nomenclature. For example, Homoptera is now combined with Hemiptera and Isoptera is now within Blattodea. Please use the lecture list of orders.)
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. Pretty cool for an insect class.

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 3005/5006 COURSE OUTLINE**

Most assignments are due on Sunday, but exams and quizzes are on weekdays. Most assignments are open for at least a week, and may be submitted early.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Action</th>
<th>POINTS</th>
<th>%</th>
<th>DATE DUE by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>Syllabus Quiz</td>
<td>10</td>
<td>2.5</td>
<td>5-17 Sunday</td>
</tr>
<tr>
<td>Pre/1</td>
<td>Discussion Post Introduction/Bug Story with Peer Response</td>
<td>5</td>
<td>1.25</td>
<td>5-17 Sunday</td>
</tr>
<tr>
<td>2</td>
<td>Journal Assignment – Wing Evolution</td>
<td>10</td>
<td>2.5</td>
<td>5-24 Sunday</td>
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<tr>
<td>3</td>
<td>Insect Order Quiz</td>
<td>15</td>
<td>4</td>
<td>5-29 Friday</td>
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<tr>
<td>--</td>
<td>Group Assignment Title of Project</td>
<td>5</td>
<td>1.25</td>
<td>5-31 Sunday</td>
</tr>
<tr>
<td>4</td>
<td>Journal Assignment – JH Mimic</td>
<td>10</td>
<td>2.5</td>
<td>6-7 Sunday</td>
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<tr>
<td>1-5</td>
<td>Online Review Session – Units 1-5 (8:00 PM Online)</td>
<td>--</td>
<td>--</td>
<td>6-11 Thursday</td>
</tr>
<tr>
<td>1-5</td>
<td>Lecture Exam I</td>
<td>70</td>
<td>18</td>
<td>6-12 Friday</td>
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<tr>
<td>--</td>
<td>ENY 5006 (Graduate Student) Literature Review Topic Due</td>
<td>-- see rubric</td>
<td>6-14 Sunday</td>
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<tr>
<td>--</td>
<td>Group Project Draft</td>
<td>20</td>
<td>5</td>
<td>6-14 Sunday</td>
</tr>
<tr>
<td>8</td>
<td>Journal Assignment – Social Insects</td>
<td>10</td>
<td>2.5</td>
<td>6-21 Sunday</td>
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<tr>
<td>--</td>
<td>Meet with your group about project</td>
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<td>--</td>
<td>6-22 Monday</td>
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<tr>
<td>6-10</td>
<td>Lecture Exam II</td>
<td>75</td>
<td>20</td>
<td>6-26 Friday</td>
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<tr>
<td>11</td>
<td>Journal Assignment – Parasites (Endo/Ecto)</td>
<td>10</td>
<td>2.5</td>
<td>7-5 Sunday</td>
</tr>
<tr>
<td>12</td>
<td>Group Project Submission and Peer Review (1 week for peer reviews)</td>
<td>70</td>
<td>14</td>
<td>7-12 Sunday</td>
</tr>
<tr>
<td>--</td>
<td>ENY 5006 Graduate Student Literature Review - (ENYS006 Only)</td>
<td>(100)</td>
<td>7-19 Sunday</td>
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<tr>
<td>14</td>
<td>Journal Assignment – Biological Control – Neighbor</td>
<td>10</td>
<td>2.5</td>
<td>7-26 Sunday</td>
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<tr>
<td>11-15</td>
<td>Lecture Exam III</td>
<td>80</td>
<td>20</td>
<td>8-2 Sunday</td>
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<td>TOTAL</td>
<td></td>
<td>400 ENY 3005 500 ENY 5006</td>
<td>100</td>
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**GRADING Scale:** Percentage
(0.5 and above will round up)
93-100 A 90-92 A-
87-89 B+ 83-86 B 80-82 B-
77-79 C+ 73-76 C 70-72 C-
67-69 D+ 63-66 D 60-62 D-
0-59 E
<table>
<thead>
<tr>
<th>Week</th>
<th>Web Lecture/Activity</th>
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</table>
| 1    | **Week 1 Class Registration, Purchase class materials**  
- In Canvas: Take syllabus quiz (Quiz 10 points), Post introduction and reply (Discussion 5 points)  
**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.** |
|      | **Assignments**  
**Color Code**  
Assignments/Discussions are due by Sunday night 11:59 PM EST. |
| 2    | **Unit 2 - Insect Evolution and Classification**  
Journal Assignment - Wing Evolution |
| 3    | **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. Yes, there is a quiz to let you know your familiarity with the material before the first exam.**  
Insect Order Quiz (15 points)  
Group Assignment - Project Title (5 points) |
| 4    | **Unit 4 - Integument, Development and Reproduction**  
Journal Assignment - JH Mimics  
Insect Order Quiz - Friday– online 8:00AM-11:59 PM (20 points) |
| 5    | **Unit 5 - Maintenance and Movement**  
EXAM REVIEW - Chat Room - Thursday 8:00 – 9:00PM EST  
*EXAM 1 - Friday 8:00 AM-11:59 PM Units 1-5 -70 points |
| 6    | **Unit 6 - Reception & Integration**  
**Unit 7 - Getting Together**  
Group Project Draft due (20 points)  
Graduate Students - Paper Topic Due (by e-mail) |
| 7    | **Unit 8 - Social Relationships**  
Journal Assignment - Social Insects |
| 8    | **Unit 9 - Adaptations to Habitats** |
| 9    | **Unit 10 - Plant – Insect Interactions**  
*EXAM 2 - Units 6-10 - 75 points |
| 10   | **Unit 11 – Parasites**  
Journal Assignment - Endo-Ectoparasite  
**Unit 12 - Insect Pest Management**  
Group Project – Group Paper |
| 11   | **Unit 13 – Insecticides**  
**Unit 14 - Biological Control**  
**ENY 5006 Literature Reviews**  
Journal Assignment - Bio-Control – Neighbor Pest Problem |
| 12   | **Unit 15 - Medical Entomology** |
| 13   | *EXAM 3 –80 points  
*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, you may make a late submission one week following the initial due date for partial credit before 11:59 PM for the first four journals.** 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.

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, so please use that tool to communicate with your group members. 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 use this group chat function within Canvas, your group participation can be verified. 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. **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. 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. The introduction of research papers will give you some interesting information.

Final Project and Peer Review- Your group project will be uploaded to Canvas 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.** One of your peer reviews may be your own project, evaluate the project honestly.

Discussion Posts
Your discussion topics will take you on a safari to find information online. Once you read about the topic, like I”nsect superpowers”, you will then summarize your topic in an original paragraph (300 words). The discussion takes place as you then comment on the posts by other students in your group (200 words). Please see the course outline section of the syllabus for discussion due dates and click the discussion link in Canvas for the instructions for that particular topic. **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, ESA, https://academic.oup.com/jme/pages/Manuscript_Preparation#References, and this link is for Medical Entomology.

**Literature Review - ENY 5006 only (example and paper on writing a review posted under “extras” on the homepage)**

For this assignment, graduate students will be required to write a literature review based on one of the following topics: Biological Control of Insects, Insect Pest Management (IPM, Insecticides, agricultural crops, etc.), or Medical Entomology. A literature review is a “state of the science” collection of research that you summarize into a paper. You must choose a topic and submit it to the instructor, by e-mail, before the first exam. The instructor will approve the topic or will suggest some alternate topics for the review. The literature review will consist of a 10 page (body), typed (12 point font, 1.5 line spacing, 1.25” margins) paper with a minimum of 15 peer-reviewed journal article references. At least 5 of these articles must be the year 2006 or newer. This assignment will be due before the final exam. If you have questions about which journal articles are acceptable, please ask. (Websites are typically not considered to be a peer-reviewed reference.)

**Finding Research Articles:**

You can visit the UF library page and go to quick links to find great databases for articles. Try Science Direct or Google Scholar to find some full articles online! If you are off campus, the UF library has information for remote use at http://www.uflib.ufl.edu/distance/. 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. This assignment is worth 100 points (ENY5006 only)! You will be graded on content and quality of sources as well as organization and format. This report will be submitted to Turn-it-In anti-plagiarism software, so be careful about plagiarism and citations.

Any plagiarized work will receive a zero and may be submitted to the graduate committee and UF judicial affairs. Your paper should have a title, abstract, introduction, body, and conclusion. The body of the paper should address the research done in the topic of your choice. It is helpful to make an outline of what you would like to address. As you read the papers, take notes under each of your outline headings. Keep track of your references and who did what research. It is helpful to number your references, or color code them so you can use your numbering or color system as you take notes. **It takes about a month to gather and read your resources, so be sure to get started on this early in the semester. Remember, you must review and comment on the research results, not just give an overview of topic facts.** A sample paper will be posted for you on the homepage. Here is a link to the UF Library about how to avoid plagiarism, https://guides.uflib.ufl.edu/copyright/plagiarism.

**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 in the online chat room the night before the first exam at 8:00 pm (EST). There are no scheduled review sessions for subsequent exams. The chat will last for 1 hour and you may post questions to be answered in real time from the instructor. If you are not able to attend the review, you may view the chat log in ELearning.

**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 exams to “Turn It In” for plagiarism evaluation. 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. 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.

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 least one week in advance. 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.

LAB INFORMATION – The lab is a required as a co-requisite.
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 separately. 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 an ELearning 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. All collection specimens will be marked and may not be re-used for ENY 3005L or ENY 4161. It is illegal to collect specimens in State or National Parks. Collecting in National Forests, like the Ocala National Forest, is legal and allowed.

Class Evaluations
Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations through Canvas. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students through GatorEVALS.

NOTE: Before the final exam, you should receive an e-mail about an electronic evaluation from the Dean’s office at UF. Please fill out this evaluation to assess the quality of this course. These evaluations are important as they are reviewed by the dean, department chair, and instructor. Please take time to complete the evaluation for me. Thank you in advance

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.

For more information regarding the Student Honor Code, please see: http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php. Copying, screen printing, photographing, or viewing another students 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.

*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 referred to the Dean of Students Office for academic dishonesty.

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/

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 http://distance.ufl.edu/student-complaints for more details.