

**ENTO 4000/6000, General Entomology  
Fall 2021 Griffin and Tifton Campus  
Syllabus**

**Time:**

Lecture: Tuesday, Thursday 12:45- 2:00 PM

Laboratory (Griffin): Thursday 2:20- 4:20 PM

**Locations:**

Tifton Lecture and Laboratory: 201 NESPAL

Griffin Lecture: SLC Room 215

Griffin Laboratory: 301 Flynt building

**Instructors:**

**Tifton Lecture: Jason Schmidt**, Associate Professor, 315 Agricultural Research Building  
4603 Research Way, Tifton Campus: (229) 386-7251, [jschmid2@uga.edu](mailto:jschmid2@uga.edu)

**Tifton Lab: Pedro Toledo** ([toledo@uga.edu](mailto:toledo@uga.edu)); **Eddie Slusher** ([eks29261@uga.edu](mailto:eks29261@uga.edu)), **Amos Kaldor** ([adk14957@uga.edu](mailto:adk14957@uga.edu)); Teaching Assistants

**Griffin Lecture: Shimat V. Joseph**, Assistant Professor, Turfgrass Research and Extension  
Facility, 1109 Experiment Street, Griffin, GA 30223, (470) 629-6287, [svjoseph@uga.edu](mailto:svjoseph@uga.edu)

**Griffin Lab: Lisa M. Ames**, [lames@uga.edu](mailto:lames@uga.edu)

Teaching Assistant, **Robert Wolverton**, [Robert.Wolverton@uga.edu](mailto:Robert.Wolverton@uga.edu)

**Office Hours:** By appointment. Please do not hesitate to see us to arrange a time.

**Text Book:** Daly and Doyen's Introduction to Insect Biology and Diversity. **Third Edition.**  
2012. J. B. Whitfield and A.H. Purcell III

**Supplemental Reading Material:**

Triplehorn, C.A. and N.F. Johnson. 2005. Borror and DeLong's Introduction to the Study of  
Insects. 7th ed. Thomson Brooks/Cole, Belmont CA, 864 pp.

**Course Objectives:** The goal of this course is to make you familiar with the fundamentals of  
insect biology and relationships among insects, plants and other organisms. It will also introduce  
you to the different specialization within the field of entomology including agriculture, medical  
and veterinary, apiculture, etc. We hope to give you an appreciation for the diversity of form and  
function in the insect world by presenting both beneficial and detrimental effects of insects.  
Hopefully, you will leave this course with a better understanding of how insects affect all other  
forms of life on the planet.

**Laboratory Objectives:** In the laboratory, you will learn how to identify commonly  
encountered insects. We will introduce basic elements of insect morphology and taxonomy.  
Learning to distinguish unique features of insects will also allow an increased appreciation for  
insect diversity and a sense of where insects fit in to the animal kingdom.

**Attendance:**

Students are expected to attend class on a regular basis in person or via zoom. If absent from class, it is the responsibility of the student to make up any work that is missed.

**Grades will be based on the following items:**

1. Lecture Exams (3)
2. Laboratory Quizzes (5)
3. Laboratory Exams (2)
4. Insect Collection (1)

**Lecture Exams**

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There will be three lecture exams including the final exam, each worth 100 points for ENTO 4000. Exams will be given in class and will test your knowledge of the material presented during the lecture portion of the class. The first two lecture exams will be given during the semester while the third will serve as the final exam for the course. Students registered for ENTO 6000 will have additional 25 points of questions for each exam. These questions usually will involve an essay-type answer.

**Laboratory Quizzes**

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You will be given five - 10 point quizzes that will be worth a total of 50 points. Quizzes will be administered at the beginning of five labs and will cover insect taxonomy.

**Laboratory Exams**

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There will be two laboratory exams worth 50 points. These exams will test your knowledge of the material presented in the laboratory during the course of the semester.

**Insect Collection**

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You will be required to make an insect collection that will be turned in for grading at the end of the semester. This collection will be worth a total of 100 points. Details on collection requirements and grading will be presented in laboratory.

**Grading Policies**

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First, a review of point values for each required item in the course:

ITEM	Maximum Point Value	
	Ent 4000	Ent 6000
Lecture Exam 1	100	125
Lecture Exam 2	100	125
Lecture Final (Exam 3)	100	125
Laboratory Quizzes	50	50
Laboratory Exam 1	50	50

Laboratory Exam 2	50	50
Insect Collection	100	100
<b>TOTAL</b>	<b>550</b>	<b>625</b>
Term Paper (Extra Credit, Optional)	30	30

#### **Hypothetical Student's Scores**

##### **ITEM**

Lecture Exam 1	80
Lecture Exam 2	85
Final Exam 3	85
Laboratory Quizzes	42
Laboratory Exam 1	45
Laboratory Exam 2	48
Insect Collection	90
<b>TOTAL</b>	<b>475</b>

#### **Calculating a Grade**

1. Add total points accumulated and divide by 550 (the maximum possible number of points for ENTO 4000) and convert to a percentage.

2. Calculate grade, based on percentage distribution presented below

**In the example above, the Ent 400 student had 475/550 points, which is rounded to 86%. This is a "B". Plus and minus grades also will be applied according to UGA guidelines.**

#### **Table for Finals Grades**

##### **Course Percentages (Approximate)**

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	<60%

#### **University Honor Code and Academic Honesty Policy**

Students are reminded that they are bound by the University's Academic Honesty Policy. This policy is posted on the Web at: <http://www.uga.edu/honesty/>

Students are responsible to become informed about the standards provided in the "Culture of Honesty", a document outlining the academic honesty policy of the University of Georgia.

#### **Food and Drink in the Classroom**

University policy prohibits smoking, food and drink in all labs and classrooms.

#### **Cell Phones:**

Please leave cell phones off or on silent during class, and do not text-message during class.

### Zoom Meeting Details:

Join Zoom Meeting (Griffin)  
<https://zoom.us/j/95888830083>

Meeting ID: 958 8883 0083  
One tap mobile  
+13017158592,,95888830083# US (Washington DC)  
+13126266799,,95888830083# US (Chicago)

Dial by your location  
+1 301 715 8592 US (Washington DC)  
+1 312 626 6799 US (Chicago)  
+1 646 876 9923 US (New York)  
+1 253 215 8782 US (Tacoma)  
+1 346 248 7799 US (Houston)  
+1 669 900 6833 US (San Jose)

Meeting ID: 958 8883 0083  
Find your local number: <https://zoom.us/u/acHeLcEZQa>

Join by SIP  
[95888830083@zoomcrc.com](mailto:95888830083@zoomcrc.com)

Join by H.323  
162.255.37.11 (US West)  
162.255.36.11 (US East)  
Meeting ID: 958 8883 0083

**Class Schedule**  
**Lecture Schedule: Tuesday, Thursday 12:45- 2:00 PM**  
**Griffin: SLC Room 215**  
**Tifton: 201 NESPAL**

Date	Day	Lecture	Topic	Pages in Text
19-Aug	Thu	1	Introduction	3-10, 13-17
24-Aug	Tue	2	Systematics of Organizing a million species: Arthropoda classification	10-13, 311-341
26-Aug	Thu	3	Insect External Anatomy: Head	18-35
31-Aug	Tue	4	Insect Collection Activity	
2-Sep	Thu	5	External Anatomy: Thorax & Abdomen	35-62

7-Sep	Tue	6	Internal Anatomy and Insect Locomotion	92-130
9-Sep	Thu	7	Life Cycles, Development and Metamorphosis	63-77
14-Sep	Tue	8	Insect Reproductive Biology	78-91
16-Sep	Thu	9	Insect Nervous System and Sensory Reception	131-161
21-Sep	Tue	10	Social Insects	162-179
23-Sep	Thu	11	<b>FIRST LECTURE EXAMINATION</b>	
28-Sep	Tue	12	Protura through Blattodea	351-421
30-Sep	Thu	13	Psocoptera through Hemiptera	425-476
5-Oct	Tue	14	Coleoptera	493-529
7-Oct	Thu	15	Neuroptera, Mecoptera, Diptera, Siphonaptera	481-492 & 561-599
12-Oct	Tue	16	Lepidoptera, Trichoptera	600-640
14-Oct	Thu	17	Hymenoptera	530-560
19-Oct	Tue	18	Review Session for Exam 2	
21-Oct	Thu	19	<b>SECOND LECTURE EXAMINATION</b>	
26-Oct	Tue	21	Insect Ecology: Population Biology	183-211
28-Oct	Thu	22	Insects and Plants	212-231
2-Nov (ESA)	Tue	23	Insects and Vertebrates (Medical and Veterinary)	232-244
4-Nov	Thu	24	Forensic Entomology	260-272
9-Nov	Tue	25	Insect Pests - Problems (IPM principles for Crops and Urban)	273-296
11-Nov	Thu	26	Insect Pests - Solutions (Host Plant Resistance)	273-297
16-Nov	Tue	27	Agricultural Crops and Pest Management	273-297
18-Nov	Thu	28 Lecturer: Jim Quick	Apiculture	175-179
23-Nov	Tue	29 Lecturer: Dr. Elizabeth McCarty	Forest Insects: Cultural, Chemical and 'No' Management	
Nov 24-26	Wed - Fri	No classes	<b>THANKSGIVING BREAK</b>	

30 Nov	Tue	30 Lecturer: Dr. David Shapiro- Ilan	*Biocontrol using Entomopathogens	
2-Dec	Thu	31	*Entomophagous and Beneficial Insects (Biocontrol)	245-259
7-Dec	Tue	32	Review Session for Finals LAST DAY OF CLASSES	
9-Dec	Thu	33	Reading Day, Term Paper Due	
Dec 14	Thu	34	<b>Final Exam (Time: 12nn – 3pm)</b>	

**Laboratory Schedule: Thursday 2:20 - 4:20 PM**

**General Entomology, Fall 2021**

**Griffin: 301 FLYNT Building**

Lab Instructor/Teaching Assistant: Lisa Ames /Robert Wolverson

**Tifton: NESPAL 201**

Teaching Assistant: Pedro Toledo/ Kyle Slusher/Amos Kaldor

<b>Date</b>	<b>Laboratory Number</b>	<b>Topic</b>
Aug 19	1	Collecting and mounting techniques; Hand out equipment
Aug 26	2	Field collection
Sep. 2	3	Insect morphology
Sep 9	4	Insect anatomy used in identification
Sep 16	5	<b>QUIZ 1</b> Other Arthropod Groups: including Collembola and Diplura. Primitive insects : Thysanura, Ephemeroptera, Odonata, Phasmatodea, Dermaptera, and Plecoptera
Sep 23	6	<b>QUIZ 2</b> Orders: Orthoptera, Phthiraptera, Blattodea, Mantodea
Sep 30	7	<b>QUIZ 3</b> Order: Hemiptera
Oct. 7	8	<b>Lab Exam I</b>
Oct 14	9	Order: Coleoptera
Oct 21	10	Order: Diptera
Oct 28	11	<b>QUIZ 4</b> Collection review (mandatory) Order: Lepidoptera
Nov. 4	12	<b>QUIZ 5</b> Orders: Hymenoptera
Nov 11	13	<b>QUIZ 6</b> Orders: Neuroptera, Mecoptera, Tricoptera, Thysanoptera, Siphonaptera
Nov 18	14	Free lab: No new material; work on collection in lab; study for exam II
Dec 2	15	<b>Lab Exam II.</b>
Dec 9		Insect Collection Due