I. Locator Information:
Instructor: Dr. Shirley Chao  
Office Location: LS 329
Course #: BIOL 150-01  
Office hours: MWF: 10:30-11:30AM; 1-2pm
Name: Principles of Biology  
TH: 9-11:00AM;
Semester Credit Hours: 4  
Office Phone: (910) 672-1427
Lecture: Tues/Thurs: 11-12:15pm (LS 116)
Lab Section: Wed: 2-3:50pm (LS 116)
Email address: schao@uncfsu.edu

FSU Policy on Electronic Mail: Fayetteville State University provides to each student, free of charge, an electronic mail account that is easily accessible via the Internet. The university has established email as the primary mode of communicating with enrolled students about impending deadlines, upcoming events, and other information important to student progression at the university. Students are responsible for reading their email on a regular basis to remain aware of important information disseminated by the university. The university maintains open-use computer laboratories throughout the campus that can be used to access electronic mail.
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Students making inquiries via email to FSU faculty and staff about academic records, grades, bills, financial aid, and other matters of a confidential nature are required to use their FSU email account.

Rules and regulations governing the use of FSU email may be found at:
http://www.uncfsu.edu/policy/general/FSUE-mailFINAL.pdf

II. Course Description: Zoology 570 is a study of the morphology, life cycles, physiology, ecology, and behavior of hexapods, with course format including two lectures/discussions and two laboratory hours a week, and with laboratory studies devoted to insect identification, insect physiology, ecology, insect behavior, and individual student projects.

III. Disabled Student Services: In accordance with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act (ACA) of 1990, if you have a disability or think you have a disability to please contact the Center for Personal Development in the Spaulding Building, Room 155 (1st Floor); 910-672-1203.

IV. Textbook:
Borror and DeLong's Introduction to the Study of Insects by Norman F Johnson, Charles A Triplehorn
Brooks/Cole Publishers
V. Student Learning Outcomes
    Upon completion of this course, students will be able to:
1. Demonstrate knowledge of traits of classified organisms and the anatomy and physiology of insects compared to vertebrates during exams, quizzes, and written assignments.
2. Apply the scientific process, including conducting experiments and testing hypotheses during lab assignments and submission of research papers.
3. Catch, identify, and properly mount for display a representative collection of insects as required for this course
4. Improve proficiency of communication skills and logical/critical thinking as evaluated by research papers

VI. Course Requirements and Evaluation Criteria - Below are the grading criteria for the course. There are NO make-up quizzes and exams. The instructor reserves the right to make allowances under certain unavoidable circumstances. Students are expected to take all exams on the scheduled dates because excused absences do not excuse you from exams. Final grades will be derived from a composite number of points earned during the course for the following activities:

<table>
<thead>
<tr>
<th>GRADING CRITERIA*</th>
<th>Points</th>
<th>Percent of final grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exams 2 @ (including final exam)</td>
<td>= 200</td>
<td>20 %</td>
</tr>
<tr>
<td>Quizzes and homework 10 @ 10 pts each</td>
<td>= 100</td>
<td>10%</td>
</tr>
<tr>
<td>Research Paper @200 pts each</td>
<td>= 200</td>
<td>20%</td>
</tr>
<tr>
<td>Insect Collection @ 200 pts each</td>
<td>= 400</td>
<td>40%</td>
</tr>
<tr>
<td>Lab Exam 1 @ 100 pts</td>
<td>= 100</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>1000</td>
<td>100%</td>
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</tbody>
</table>

Tests will consist of material from lecture discussion, reading, and other class assignments. The format of the tests will be a combination of multiple choice, true/false, matching, identification, definition, and short answer/essay questions. Tests will be administered during lecture time and you may expect them to take up the entire lecture session that day.

*The instructor reserves the right to modify the grading criteria as deemed necessary. Students will be notified of any such changes.

The Research Paper will be evaluated by the instructor and peers. Details of expectations and an evaluation rubric will be provided to each student.

The Laboratory Exam Grade will be determined by the instructor and details of expectations and an evaluation rubric will be provided to each student during the laboratory session.

GRADE EQUIVALENCIES:

90-100% = A
80-89% = B
70-79% = C
60-69% = D
59% and below = F
Students are required to take all exams on the date they are scheduled. Make-up exams will not be given unless the student presents a formal written excuse before the third class period following the initial date of the test or special arrangements have been made with your instructor prior to the exam date. Only in exceptional cases will any exceptions to these rules be made.

As a student in this course, you are responsible for all work assigned, whether or not you are present. You are, of course, also expected to complete your assignments on time. Work handed in or reported late will receive a lower grade than that handed in on time. If you must be absent unavoidably, send your paper via a friend and ask that person to get your assignment, take notes for you, and pick up any handouts. You are also responsible for demonstrating (by means of make-up work or in class discussion) an understanding of content covered in class on the day of the absence.

Students are required to attend all classes regularly and to keep appointments when they are scheduled. It is the responsibility of each student to be informed of the academic requirements of the instructor. An absence, excused or unexcused, does not relieve the student of any course requirement.

VII. USE OF EQUIPMENT

Equipment for student use: Net, collecting jar, spreading board, insect pins, collecting vials, forceps, dissecting microscope, etc will be provided with a minimum renting fee that will be reimbursed upon return of items in satisfactory condition. You are expected to return all items in your possession other than the insects you collected and the pins that they are on.

VIII. INSECT COLLECTION

Specific instructions for the Insect Collection will be discussed during the laboratory sessions and a Guide to Collecting Insects will be distributed.

Each student is required to submit an insect collection by the deadline printed in the course syllabus. Late collections will not be accepted.

Minimum collection requirements are as follows:

1. Representatives of 12 insect orders
2. Representatives of 35 different families (specific minimal orders should be represented and will be discussed)
3. Representatives from specific ecological categories (details will be provided).
4. Grading of the Collection will be discussed in lab (please see details in guide)

IX. ATTENDANCE POLICY

Students are required to read the University attendance policy very carefully. It will be enforced in all classes as follows.

Class Attendance:

Although attendance and punctuality are not normally used in the calculation of the grade (see course requirements), there appears to be as direct correlation between these variables and final grades. Students who attend all classes, are punctual, and sit near the front of the room where they can hear and see better, tend to attain higher achievement than their peers. In this regard the more you can become actively involved in the class (study with classmates, participates in class discussions, and ask questions), the better you should do in the course.
X. COURSE OUTLINE WITH ASSIGNMENT SCHEDULE:

See attached assignment calendar.

XI. TEACHING STRATEGIES

The first part of each lecture period will consist of an inquiry-based style of teaching in which major concepts will be covered and question/answer period over the topic or previous material (lecture or laboratory) covered in the class. Questions will be asked and answered by both the instructor and the student. Emphasis will be placed on student understanding of basic concepts and principles. Students will work in small groups when conducting laboratory activities but will be expected to do their own assessment and final reports.

WRITTEN ASSIGNMENTS (Writing-across-the-curriculum)

In order to emphasize the importance of writing in the learning process this course will require the student to do a certain amount of written work. You will receive more information concerning this aspect of the course from your instructor the first week of classes.

XII. REFERENCES

All general biology students are encouraged to use the library and to do supplemental reading in the biological sciences. The following science periodicals provide a source of current information in a format appropriate for both the major and non-major biology student.


In addition students should use the Internet to investigate topics of interest and to acquire pertinent information.
# ZOOL 570 GENERAL ENTOMOLOGY

**FALL 2011 LECTURE/LABORATORY SCHEDULE**

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATES</th>
<th>LAB SCHEDULE*</th>
<th>TOPICS</th>
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<tbody>
<tr>
<td>1</td>
<td>AUG 15 - 19</td>
<td>NO LAB</td>
<td>Introduction</td>
</tr>
<tr>
<td>2</td>
<td>AUG 22 - 26</td>
<td>NO LAB</td>
<td>Hemi/Holometabolous, Integument</td>
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<tr>
<td>3</td>
<td>AUG 29 - SEP 2</td>
<td>Lab Safety</td>
<td>External Anatomy</td>
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<td>4</td>
<td>SEP 5 - 9</td>
<td>NO LAB/HOLIDAY</td>
<td>Insect Development</td>
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<td>5</td>
<td>SEP 12 - 16</td>
<td>Collecting</td>
<td>Endocrine System</td>
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<tr>
<td>6</td>
<td>SEP 19 - 23</td>
<td>Insect Orders</td>
<td>Respiratory System</td>
</tr>
<tr>
<td>7</td>
<td>SEP 26 - 30</td>
<td>External anatomy</td>
<td>Digestive System</td>
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<tr>
<td>8</td>
<td>OCT 3 - 7</td>
<td>Hemimetabola</td>
<td>Reproductive</td>
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<tr>
<td>9</td>
<td>OCT 10 - 14</td>
<td>Coleoptera</td>
<td>Nervous</td>
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<tr>
<td>10</td>
<td>OCT 17 - 21</td>
<td>NO LAB/ FALL BREAK</td>
<td>Senses/Behavior</td>
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<tr>
<td>11</td>
<td>OCT 24 - 28</td>
<td>Lepidoptera</td>
<td>Communication</td>
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<tr>
<td>12</td>
<td>OCT 31 - NOV 4</td>
<td>Diptera</td>
<td>Applied/Resistance</td>
</tr>
<tr>
<td>13</td>
<td>NOV 7 - 11</td>
<td>NO LAB/HOLIDAY</td>
<td>Beneficials</td>
</tr>
<tr>
<td>14</td>
<td>NOV 14 - 18</td>
<td>Hymenoptera</td>
<td>Survey of Class Insecta</td>
</tr>
<tr>
<td>15</td>
<td>NOV 21 - 25</td>
<td>NO LAB/HOLIDAY</td>
<td>Insects and Environment</td>
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<tr>
<td>16</td>
<td>NOV 28 - DEC 2</td>
<td>Lab Practical</td>
<td>Insects and Environment</td>
</tr>
<tr>
<td>17</td>
<td>DEC 5</td>
<td>FINAL EXAM- 6-7:50pm</td>
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