University of Arkansas
College of Agriculture and Home Economics
Department of Entomology

INSECT ECOLOGY SYLLABUS

Entomology 4053: Fall 2006
Instructor: Fred Stephen
Office: AGRI 315 E
(or Forest Insect Lab.-UA Farm)
Office Hours: Mon. & Wed. 10:30 - 11:30 and by arrangement.
Phone: 575-3404 (office)
521-7354 (home).
E-mail: fstephen@uark.edu

Goals
1. To develop an understanding of important ecological concepts through the study of dynamic relationships among insects and their environment.

2. To become familiar with insect ecology literature and to gain insight into approaches used to conduct research involving insects at the individual, population, and community levels. To gain experience in interpreting and critically evaluating ecological research.

3. To learn basic approaches used for collecting, summarizing, analyzing and interpreting ecological data.

4. To develop skills in communication of ideas, through both written and oral exercises.

Prerequisites

It is assumed that students enrolling for this course have a background that includes experience in general biology and/or zoology; some knowledge of the Insecta; mathematics, through college algebra; elementary statistics; and the ability to express themselves verbally and in writing.
Course Syllabus

Topics for Lecture and Discussion:

- Population growth and dynamics
- Insect/insect interaction
- Insect plant interactions
- Life histories and behavior
- Modeling insect development and population growth

Tentative Laboratory Topics:

- Predator-prey interactions.
- Population dispersion and sampling.
- Plant defense in pines.
- Temperature effects and modeling
- Southern pine beetle model.

EXAM Dates: (NOTE: With the exception of the Final Exam date, these are tentative, and may be changed if necessary.) Also note that the final drop date for the Fall semester is October 27.

EXAM 1 - Tuesday, SEPTEMBER 26, 2006 - 2:30 - 3:30 PM.

EXAM 2 - Tuesday, NOVEMBER 7, 2006 - 2:30 - 3:30 PM.

FINAL EXAM – Saturday, DECEMBER 9th, 2006 – 7:30 AM – 9:30 AM

CLASSROOM DISCUSSION:

To introduce specific ecological concepts, some classes relating to new topics will be taught in a lecture format. Classical and current literature that relates to the topic of interest (chosen by the instructor and students) may also be assigned. In subsequent classes, there will be discussion of the literature relevant to these concepts. All students will be expected to have read the assignments and to participate regularly in the discussions. It is not necessary to always be correct in your opinion, but it is essential to participate in a manner that gives evidence of having read assignments and made preparation for class.

WRITTEN REPORTS AND ESSAYS:

Laboratory exercises are designed to give students familiarity with a variety of techniques used for ecological investigations. They also are an opportunity for students to gain skill in scientific writing. Reports based on laboratory exercises will be prepared.

All written assignments must be word-processed, carefully proof read and edited. Unless otherwise specified, please turn in written, rather than email, copies of assignments.
Text:


Academic Honesty:

All students will be given and are expected to read and strictly follow the university's policy on academic honesty.

Attendance:

Class attendance is expected, however reasonable absence will be tolerated.

Method of Establishing Course Grade:

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>Description</th>
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<tbody>
<tr>
<td>Exam 1</td>
<td>40</td>
<td>Two written exams covering both lecture and laboratory material.</td>
</tr>
<tr>
<td>Exam 2</td>
<td>40</td>
<td>Lab reports &amp; essays, homework and participation in class discussion.</td>
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<tr>
<td>Labs &amp; Hmwork</td>
<td>40</td>
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<td>Class Disc</td>
<td>40</td>
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<tr>
<td>Final Exam</td>
<td>20</td>
<td>Final exam</td>
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<tr>
<td>TOTAL</td>
<td>100</td>
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Grades will follow this distribution (although I reserve the right to be more lenient if appropriate in my judgment):

<table>
<thead>
<tr>
<th>Grade</th>
<th>Minimum - Maximum</th>
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<tbody>
<tr>
<td>A</td>
<td>93 - 100 %</td>
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<tr>
<td>A-</td>
<td>90 – 93</td>
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<tr>
<td>B+</td>
<td>87 – 90</td>
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<tr>
<td>B</td>
<td>83 – 87</td>
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<tr>
<td>B-</td>
<td>80 – 83</td>
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<tr>
<td>C+</td>
<td>77 –80</td>
</tr>
<tr>
<td>C</td>
<td>73 – 77 %</td>
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et cetera...

Note that grades are not distributed on a curve, and it is thus possible for all students to receive an "A".

8/13/06