**BIOL 3840/5840 - ENTOMOLOGY FALL 2015**
**SYLLABUS & COURSE POLICIES**

**Lecture: BC 1025 (9-9:50 a.m. M, W, F)**
**Laboratory: BC 2071 - Section A, (9:30 – 12:20 Th); Section B (1-3:50 Th)**
**Instructor: Dr. Mark Blackmore**
**Office: BC 2218, Tel. 259-5114; email = mblackmo@valdosta.edu**
**Office Hours: M, W 11:15-12:00 or by appointment**
**Research Lab: BC 2060, Tel. 245-6422**

**Course scope and objectives:** This course is intended to introduce the student to the study of insects, their biology, ecology and behavior. Factors contributing to the diversity and success of these arthropods and their interactions with humans will be emphasized. Students are expected to learn the characters used to identify the more common and important North American taxa and to assemble a broadly representative collection of locally-occurring species. These correspond to Department of Biology Educational Outcomes 2 ("Describe the evolutionary processes responsible for biological diversity, explain the phylogenetic relationships among the major taxa of life, and provide illustrative examples") and 5 (Interpret ecological data pertaining to the behavior of the individual organism in its natural environment; to the structure and function of populations, communities and ecosystems, and to the human impacts on these systems and the environment.")

**Catalogue Description: BIOL 3840/5840** Introduction to the study of insect biology including ecology, behavior and taxonomy. Laboratory includes field observation, sampling and identification of local fauna. **4 credit hours. Prerequisite: BIOL 1107K, BIOL 1108K; admission to graduate program (BIOL 5840 only).**

**Texts:** *Fundamentals of Entomology* 6th ed. by R. J. Elzinga; recommended references *An Introduction to the Study of Insects* 6th ed. by Borror, Triplehorn & Johnson and *Insects, Spiders and Other Terrestrial Arthropods* by George C. McGavin.

**Course requirements & grading policy:** Students are expected to attend all scheduled lectures and laboratory sessions, take examinations and turn in an insect collection. One or two Saturday or overnight field trips are planned but scheduling depends on availability at the field stations. **Daily attendance** will not be recorded after the Drop/Add period but students are responsible for all material presented in class. The Instructor is not obligated to provide lecture notes or handouts to absentee students and reserves the right to offer make-up examinations to students with documented valid excuses (*eg.* a death in the immediate family). Due to the logistical problems of setting up laboratory practical exams, make-ups of these tests may not be available. Lecture topics will be covered in 3 one-hour examinations and a comprehensive final examination. These exams may consist of any combination of objective (fill-in, true-false, multiple choice) and subjective (essay, diagrams etc.) questions about material presented in class or in the text. ***Exams will be retained by the instructor*** for 1 calendar year; students may arrange to see these at any time. Laboratory material will be covered by 6 quizzes and 2 practical examinations (sight identification). Reading material assigned for the lab also may be covered on these tests but students will not be tested in the lab on subjects covered only in lecture. ***All tests are cumulative.*** Grading of the collection will include consideration of mounting technique, appropriateness of mounts, condition and appearance of specimens, proper labeling and identification, as well as content (see handout). Specifically, the collection should include a minimum of 4 arthropod classes, plus 15 orders and 75 families of insects. Oral presentations and curatorial duties to improve the teaching collection also may be assigned; satisfactory completion will earn additional points.

Points for the course will be allocated as follows:

| LABORATORY | | LECTURE | |
|---|---|---|---|
| Quizzes: | 100 pts (20 each, low score dropped) | Hour Exams | 300 pts |
| Exam I: | 75 pts | Final Exam | 200 pts |
| Exam II: | 125 pts | TOTAL: | 500 pts |
| Collection: | 200 pts | | |
| TOTAL: | 500 pts | | |

Oral presentation & Extra Cr. Will not exceed 50 pts

The following scale will be used to assign final grades:

| POINTS EARNED | GRADE |
|---|---|
| 900-1000 | A |
| 800-899 | B |
| 700-799 | C |
| 600-699 | D |
| < 600 | F |

**Special needs:** Students requesting classroom accommodations or modifications due to a documented disability must contact the Access Office for Students with Disabilities located in Farber Hall. The phone numbers are 245-2498 (V/VP) and 219-1348 (TTY).

**Tentative Lecture Schedule – Fall 2015**

| Lecture Topics | Assigned Reading in Elzinga |
|---|---|
| Introduction: Why study insects? | Preface & handouts |
| Overview of Arthropods | Ch.1 |
| Insect Body Plan: External Characteristics | Ch. 2 |
| Insect Body Plan: Internal Characteristics | Ch. 3 |
| Development & Specialization | Ch. 4 |
| Insect Ecology | Ch. 5 |
| Behavior & Sociality | Ch. 6 & 7 |
| Parasitism & Predation | Ch. 8 & 9 |
| Interactions with the Human World | Ch. 10 |
| Pest Management & Household Insects | Ch. 11 & 12 |

Tentative lecture exam dates: Sept. 14, Oct. 19, Nov.23. ***Final exam 8-10 a.m., Friday Dec. 11***

**Tentative Lab Schedule** (subject to weather conditions)

| Week Beginning | Topic/Activity | Assigned Reading |
|---|---|---|
| August 17 | Distribute equipment, Local Collecting | Ch. 13 & 14 |
| August 24 | Keys; Classification; Phylum Arthropoda; External morphology of insects, Insect orders; Apterygota, | pp. 10 & 21; 362-378 |
| August 31 | **Quiz 1;** Ephemeroptera & Odonata; Collecting trip | pp. 378-383 |
| Sept. 7 | Aquatic collecting trip | |
| Sept. 14 | **Quiz 2;** Orthopteroid orders | pp. 383-389 |
| Sept. 21 | Isoptera, Dermaptera, Plecoptera | pp. 389-399 |
| Sept. 28 | Phthirapterans & Thysanoptera; Collecting trip **Quiz 3;** Hemiptera, Megaloptera, Neuroptera | pp. 399-414 |
| Oct. 5 | **Lab practicum I;** Check collections | |
| Oct. 12 | Coleoptera; Collecting trip | pp. 415-429 |
| Oct. 19 | **Quiz 4;** Hymenoptera, Mecoptera, | pp. 576-661 |
| Oct. 26 | Trichoptera; Lepidoptera | pp. 439-449 |
| Nov. 2 | **Quiz 5;** Siphonaptera; lower Diptera | pp. 450-465 |
| Nov. 9 | Diptera cont. | |
| Nov 16 | **Quiz 6;** TBA Collections due | |
| Nov. 23 | Thanksgiving Break – Labs do not meet | |
| Nov. 30 | **Lab practicum II** | |
| Dec. 7 | **Last Class Day** – Labs do not meet | |