BIOL 3850/5850 – MEDICAL & VETERINARY ENTOMOLOGY SPRING 2014
SYLLABUS & COURSE POLICIES

Lecture: BC 2202 (M, W, F 11:00-11:50)
Laboratory : BC 2071 (Thursday: 9:30-12:20)
Instructor: Dr. Mark Blackmore
Office: Bailey Science Center 2218. Tel. 259-5114; email = mblackmo@valdosta.edu
Office Hours: M, W, Th, F 1:30-2:30 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 3850/5850 Overview of medical and veterinary entomology. Reviews basic biology of insects and other arthropods, with emphasis on species affecting health of humans, domestic animals and livestock. Diseases associated with arthropods and principles of forensic entomology will be considered. **4 credit hours. Prerequisite: BIOL 1107, BIOL 1108, or permission of instructor; admission to graduate program (BIOL 5850 only).**

Texts: *Medical and Veterinary Entomology* 2nd ed. 2009 by Gary Mullen & Lance Durden.

Course requirements & grading policy: Students are expected to attend all scheduled lectures and laboratory sessions, take examinations, lab quizzes and turn in a reference collection of medically important arthropods. **Attendance** will not be recorded after the Drop/Add period but students are responsible for all material presented in class and must attend labs. 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 three 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***. 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:	40 pts (10 each, low score dropped)	Hour Exams	200 pts
Exam I:	25 pts	Final Exam	100 pts
Exam II:	75 pts	TOTAL:	300 pts
Collection:	50 pts		
TOTAL:	190 pts	Student Presentations.	Will not exceed 10 pts

The following scale will be used to assign final grades:

POINTS EARNED	GRADE
450-500	**A**
400-449	B
350 - 399	C
300- 349	D
< 300	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 – Spring 2014

Lecture Topics	**Assigned Reading**
Introduction & Overview of Arthropods	Ch.1
Morphological Adaptations of Parasitic Arthropods	Ch. 2
Epidemiology of Vector-borne Diseases	Ch. 3
Forensic Entomology	Ch. 4
Cockroaches	Ch. 5
Lice	Ch. 6
True Bugs	Ch. 7
Beetles & Fleas	Ch. 8 & 9
Flies	Ch. 10 through 19
Moths & Butterflies	Ch. 20
Ants, Wasps & Bees	Ch. 21
Scorpions & Solpugids	Ch. 22-23
Spiders	Ch. 24
Mites	Ch. 25
Ticks	Ch. 26
Molecular Tools Used in Med/Vet Entomology	Ch. 27

Tentative lecture exam dates: Fri. Feb 21; Wed. April 9. Final Exam Friday May 9, 12:30-2:30.

Tentative Lab Schedule

Week	**Topic/Activity**
1	Classification, External morphology, Arthropod classes, Insect & Arachnid orders
2	Life history stages, Dichotomous keys, Blattaria, Phthiraptera
3	**Quiz 1 (Jan 30);** Forensics lab
4	Hemiptera, Coleoptera & Siphonaptera
5	**Quiz 2 (Feb 13);** Diptera part I (Nemotocera)
6	Diptera part II (Bracycera)
7	Diptera part III (Cyclorhapha)
8	**Quiz 3 (Mar 6);** Discuss student presentations
9	**Lab practicum I (Mar 13)**
10	Spring Break
11	Lepidoptera & Hymenoptera
12	**Quiz 4 (Ap 3);** Arachnid orders part I
13	TBA
14	**Quiz 5 (Ap 17);** Arachnid orders part II
15	**Collections due (Ap 24)**
16	**Lab practicum II (May 1)**

Graduate Students: In addition to the requirements set forth above, students enrolled for Graduate Credit (BIOL 5850) will read and provide written critiques of assigned research papers (TBA) (20 points total) , and present 3 class lectures (10 points each).

Grade scale for graduate students:

POINTS EARNED	GRADE
512-550	A
471-511	B
435 - 470	C
360- 434	D
< 360	F