

**BIOL 5850 – MEDICAL & VETERINARY ENTOMOLOGY SPRING 2020
SYLLABUS & COURSE POLICIES**

Lecture: BC 2022 (M, W, F 10:00-10:50)

Laboratory: BC 2071 (Section A: Thursday 2:00 – 4:50; Section B: Friday 11:00 – 1:50)

Instructor: Dr. Mark Blackmore

Office: Bailey Science Center 2218. Tel. 259-5114; email = mblackmo@valdosta.edu

Office Hours: Mon 11-12; Wed 11-12; Thursday 9:30-10 or by appointment

Research Lab: BC 2060, Tel. 245-6422

Course scope and objectives: This course is intended to introduce the student to the biology, ecology and behavior of insects that affect the health of humans, livestock, and other domestic or wild animals. 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 of medical or veterinary importance and to assemble a collection of relevant 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 3200, BIOL 3250, 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 and turn in 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. 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.**

Points for the course will be allocated as follows:

LABORATORY

6 Quizzes: 50 pts (10 pts each, low score dropped)

Exam I: 40 pts

Exam II: 60 pts

Collection: 50 pts

TOTAL: 200 pts

LECTURE

Hour Exams 225 pts

Final Exam 75 pts

TOTAL: 300 pts

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) (10 points total), and present 2 class or laboratory lectures (10 points each).

Grade scale for graduate students:	<u>POINTS EARNED</u>	<u>GRADE</u>	<u>POINTS EARNED</u>	<u>GRADE</u>
	492-530	A	371- 413	D
	453-491	B	< 369	F
	414 - 452	C		

Tentative Lecture Schedule – Spring 2020

<u>Lecture Topics</u>	<u>Assigned Reading</u>
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: Mon. Feb 10; Wed. March 11; Mon. April 20. **Final Exam Tuesday May 5, 10:15 AM – 12:15 PM.***

Tentative Lab Schedule

<u>LAB No.</u>	<u>Topic/Activity</u>
1	Classification, External morphology, Arthropod classes, Insect & Arachnid orders
2	Quiz 1* ; Life history stages, Dichotomous keys, Blattaria, Phthiraptera
3	Quiz 2* ; Hemiptera, Coleoptera & Siphonaptera
4	Quiz 3* ; Diptera part I (Nematocera)
5	Diptera part II (Brachycera)
6	Lab practicum I
7	Lepidoptera & Hymenoptera
8	Quiz 4* ; Arachnid orders part I
9	Quiz 5* ; Arachnid orders part II
10	Quiz 6* ; Arachnid orders part III
11	Collections due
12	Lab practicum II

* **Quiz covers all material from previous labs**

Special needs:

Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871. For more information, please visit VSU's Access Office or email: access@valdosta.edu.

Administration of online Student Opinion of Instruction (SOI):

At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available on BANNER. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one week before the end of the term). SOI responses are anonymous to instructors/administrators. Instructors will be able to view only a summary of all responses after they have submitted final grades. While instructors will not be able to view individual responses or to access any of the data until after final grade submission, they will be able to see which students have or have not completed their SOIs. These compliance and non-compliance reports will not be available once instructors are able to access the results. Complete information about the SOIs, including how to access the survey and a timetable for this term is available at SOI Procedures and Timelines (located at <https://www.valdosta.edu/academics/academic-affairs/sois/> under “Information for Students - Directions for Accessing and Completing SOIs”).

Title IX Statement: Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including sexual harassment and sexual violence), sexual orientation, gender identity, religion, age national origin, disability, genetic information, or veteran status, in the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Title IX Coordinator: The Director of the Office of Social Equity, titleix@valdosta.edu, 1208 N. Patterson St., N. Patterson St., Valdosta State University, Valdosta, Georgia 31698, 229-333-5463.