BIOL 3850 MEDICAL & VETERINARY ENTOMOLOGY SPRING 2022 SYLLABUS & COURSE POLICIES

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

Laboratory: BSC 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

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

diversity, explain the phylogenetic relationships among the major taxa of life, and provide 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

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).

Text: *Medical and Veterinary Entomology* 3rd ed. 2019 by Gary Mullen & Lance Durden.

Course requirements & grading policy: Students are expected to attend all scheduled lectures, all laboratory sessions, and complete all assigned work including quizzes and examinations. BlazeView will be used to communicate with the class, and students should check BV daily for announcements or other information that may be posted there. Regular attendance and participation are essential for success in class. Therefore, students are expected to attend class as scheduled and must complete assignments as outlined in the syllabus. Attendance will not be routinely 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

the lab also may be covered on these tests but students will not be tested in the lab on subjects that are covered <u>only</u> in lecture. *All tests are cumulative*.

Points for the course will be allocated as follows:

| <u>LABORATORY</u> | LECTURE | |
|---|----------------|---------|
| 8 Quizzes (15 pts each, 2 low scores dropped) | Hour Exams | 300 pts |
| 90 pts | | |
| Practical Exam I: 40 pts | Final Exam | 100 pts |
| Practical Exam II: 60 pts | TOTAL: | 400 pts |
| Worksheets: 10 pts | | |
| TOTAL: 200 pts | | |

| The following scale will be used to assign final grade | s: | POIN | ITS EARNED | GRADE |
|--|----|-------------|------------|-------|
| 540 | 6 | 500 | A | |
| 480 | 5 | 539 | В | |
| 420 | 4 | 179 | C | |
| 360 | | 419 | D | |
| < 36 | 60 | | F | |

Tentative Lecture Schedule Spring 2022

| Lecture Topics | Assigned Reading (Mullens & Durden 3 rd ed.) |
|--|---|
| Introduction & Overview of Arthropods | S Ch.1 |
| Morphological Adaptations of Parasitic | Arthropods Ch. 2 |
| Arthropod Toxins & Venoms | Ch. 3 |
| Epidemiology of Vector-borne Diseases | Ch. 4 |
| Forensic Entomology | Ch. 5 |
| Cockroaches | Ch. 6 |
| Lice | Ch. 7 |
| True Bugs | Ch. 8 |
| Beetles & Fleas | Ch. 9 & 10 |
| Flies | Ch. 11 through 20 |
| Moths & Butterflies | Ch. 21 |
| Ants, Wasps & Bees | Ch. 22 |
| Scorpions & Solpugids | Ch. 23 24 |
| Spiders | Ch. 25 |
| Mites | Ch. 26 |
| Ticks | Ch. 27 |
| Molecular Tools Used in Med/Vet Entor | mology Ch. 28 |

Tentative lecture exam dates: Mon. Feb 14; Fri. March 25; Fri. April 29. Final Exam Tuesday May 3, 10:15 AM 12:15 PM.

Tentative Lab Schedule

| LAB No. | Topic/Activity |
|---------|---|
| 1 | Classification, Dichotomous keys, Arthropod classes, Insect & Arachnid orders |
| 2 | External morphology, Life history stages, |
| 3 | Quiz 1*; Blattodea, Phthiraptera |