

**BIOL5305 Medical and Medicocriminal Entomology**  
**Class Syllabus and Course Explanation**

**Fall 2017**  
**Syllabus**

**INSTRUCTOR:** Dr. Sibyl Bucheli  
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Office Hours: Weds 10 – 11 am or by appointment

**LOCATION & TIME:** LEE DRAIN BUILDING Room 136

**REQUIRED TEXT:**

- Lecture handouts: Lecture notes and other resources are available electronically via Blackboard or as a handout in class.
- Additional media: Blackboard (I recommend that you use a university computer; I will not consider issues with personal machines to be valid excuses)

I TAKE ACADEMIC HONESTY VERY SERIOUSLY and will pursue any violations. All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The university and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

**COURSE CONTENT:** Medical entomology and medicocriminal entomology are disciplines focused upon insects and arthropods that impact human health. It includes scientific research on the behavior, ecology, and epidemiology of arthropod disease vectors. This course of faculty-led study is designed to provide exposure of undergraduate students to new biological topics and concepts in a course setting, prior to that course's formal Department, College, and University course adoption. Prerequisites: Biology major, minimum Junior standing. Demonstrated college-level readiness in reading, writing, and math. This course may be taken for Academic Distinction Credit.

**COURSE OBJECTIVES:** To learn and understand basic knowledge of the behavior, ecology, and epidemiology of arthropod disease vectors.

**COURSE STRUCTURE:**

1. Lecture will cover the basics of medical entomology and medicocriminal entomology.
2. Attendance to lecture is mandatory. I will cover information that is not in your book that you will be responsible for knowing.
3. Reading the assigned chapters and all handouts is mandatory for the class.
4. Assignments are mandatory and provide you with a gauge of your progress.
5. Blackboard will serve as a medium to exchange information and a means by which you may turn in writing assignments and homework.

**PREPARATION AND EXPECTATIONS:** Though I do not have an attendance grade, you are expected to attend all lecture sessions. Medical entomology and medicocriminal entomology is an advanced course that will demand careful preparation and study, and as such, good attendance is absolutely essential for success in meeting the basic requirements in the course. Further, the lectures are drawn from a wide variety of sources including my research, experiences, and the primary literature. I will provide you with reading from the literature. All material is fair game for exams. It will make your life much easier if you read the appropriate chapters in your text before coming to class.

LATE MATERIALS POLICY, MAKE UP POLICY, & FAILURE TO FOLLOW DIRECTIONS POLICY: I am under no obligation to provide the student with the opportunity to make-up assignments or to accept late assignments. Any make-up work will be given only for excused absences provided before the missed assignment and (Doctor's excuse, obituary, etc.) deemed valid at my discretion.

1. I will not accept any emailed documents.
2. No work will be accepted late for any reason.
3. Failure to upload due an assignment due to an issue encountered on a personal computer (as opposed to a university computer) will not be considered a valid excuse.
4. Students must be in class on the day that work is assigned to be eligible for a make-up assignment. A student who is not in attendance the day that work is assigned is ineligible for a make-up assignment.
5. No make-up exams will be given without written notification prior to the exam by the student and approval from the instructor. Make-up exams will not be the same exam given to the rest of the class. No exam will be administered to students entering the exam after the first person has turned in their exam.
6. Failure to follow instructions for assignments may result in a penalty of a loss of any or all possible points.

EVALUATION METHODS: There will be 2 lecture exams, and one term paper. Details follow. I reserve the right to assign additional work as necessary. I will calculate your grade to the nearest tenth of a point (00.00%). That means if you earned 79.59%, you earned a C, not B and if you earned a 79.99%, you earned a C, not B. You can track your score throughout the semester by checking your scores on Blackboard. Adding up your total score and dividing it by the total possible (at that point) will give you're your percentage grade. ***A note about "curving": the instructor reserves the right to curve the grading scale downward just as they do to curve upward.***

EVALUATION:

2 Lecture Exams @ 100 pts each	200 pts
Writing assignment	200 pts
Whatever additional homework necessary to teach principles	?

TOTAL POSSIBLE POINTS                      400 points

GRADING:

A	90.00%&above;
B	80.00-89.99%;
C	70.00-79.99%;
D	60.00-69.99%;
F	59.99%&below

1. LECTURE EXAMS: There will be two exams during the semester (100 points each). Exams will assess your understanding of the factual material as well as your ability to understand meaning and context and to synthesize information from more than one lecture. Exams will typically (but not always) consist of definitions and concepts, short answer and two major essays. Please note, you will only have the regularly scheduled class time to complete exams.
2. WRITING ASSIGNMENT: There will one writing assignment (200 points total) completed in phases with due dates throughout the semester. Description and due dates are posted below. All assignments will be completed via blackboard. I will not accept any materials turned in via email. I will not accept any materials turned in late. I will not provide make-ups for any materials.

### Course Schedule

<u>Week</u>	<u>Topic and Assignment</u>
Week 1	No class
Week 2	Hurricane Harvey
Week 3	No Class
**Week 4	Introduction, Morphological adaptations of parasitic arthropods, Epidemiology and Epizootiology <b>Paper topic due</b>
**Week 5	Blattodea, Phthiraptera, Siphonaptera,
**Week 6	Hemiptera, Coleoptera, Hymenoptera
Week 7	<b>Exam I</b> Lepidoptera
Week 8	Diptera I: Muscoid Flies and Myiasis
Week 9	Diptera II: Horse Flies and Deer Flies <b>Bibliography and Outline of paper due</b>
Week 10	Diptera III: Tsetse Fly, Biting Gnats, Black Flies and Sand Flies
Week 11	Diptera IV: Mosquitoes
**Week 12:	Myriopoda, Crustacea
Week 13	Chelicerata
Week 14	Forensic Entomology Lecture <b>Paper Due</b>
Week 15	Field trip to STAFS
Week 16	<b>Exam II</b>

**Writing Assignment:**

**How have Arthropods influenced History?**

**A review paper on the historical implication of a medically significant arthropod.**

Three graded components:

1. 25 points - Paper topic – Due Friday September 8<sup>th</sup> by 5 pm via blackboard.
  - a. You will all write a paper investigating the historical significance of a medically significant arthropod. The exact topic is yours to decide.
    - i. 10 points - Topic
    - ii. 15 points - Why are you interested in this topic?
2. 75 points - Rough outline of paper with papers cited where appropriate – Due Friday October 20<sup>th</sup> by 5 pm via blackboard.
  - a. 25 points - You must include between 8-10 papers and no more than 3 text books.
  - b. 50 points - Outline must follow this format:
    - I. Title
    - II. Abstract – not due until final paper
    - III. Biology of Insect
      - a. Lifecycle
      - b. Ecology
      - c. Geography
    - IV. Epidemiology Model
      - a. Transmission Cycle
      - b. Parasites and Hosts
      - c. Accessibility and Susceptibility
    - V. Historical Impacts
      - a. Past influence
      - b. Current influence
      - c. Future influence
    - VI. Conclusion – not due until final paper
    - VII. Bibliography
3. 100 points - Final Paper - Due Tuesday November 14<sup>th</sup> by 5 pm via blackboard
  - a. Final paper to have same format as above outline. All sections must be completed.
  - b. I will grade for scientific content, writing style, and grammar and syntax.

**IMPORTANT DATES**

**FALL TERM 2017**

Date	Day	Event
August 23	Wednesday	First Class Day Full Term (15-Week) and 7 1/2 (A) Week Courses - Daytime on-campus and off-campus classes begin - Late Registration open - Refer to the Registrar's page for details and deadlines - Wednesday Night (WN) classes begin (on-campus and off-campus)
August 30	Wednesday	Last Day to Register and to Process Schedule Changes No registration permitted past this deadline
September 4	Monday	Labor Day - Holiday for Students and Faculty
September 8	Friday	Twelfth Class Day - Last Day to Drop Without a "Q" and Receive 100% Refund Note: Dropping a full schedule constitutes a resignation, not a drop. Click the following link to see Sam Houston State University's limitation of Q Drops.
November 10	Friday	Last Day to Drop Full-Term Courses with a "Q" Deadline to Drop 15-Week Fall Courses or Labs with a "Q" grade Notes: - Students will not be permitted to drop 15-week courses after this date - they will receive the grade they have earned - Dropping full schedule constitutes a resignation, not a drop - Limitation of Q Drops at Sam Houston State University
November 22 - November 24	Wednesday - Friday	Thanksgiving Holidays for Students and Faculty
November 27	Monday	Classes Resume
December 1	Friday	Last Class Day. Last Day to Resign by 5:00 PM in the Registrar's Office. - Resignation Policies
December 4 - December 7	Monday - Thursday	Final Examinations

RESIGNATION NOTE: Students may resign with a "W" grade from the 13th class day through the deadline posted in the Academic Calendar

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### SAM POLICY

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**Visitors in the classroom:** Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

**Students with Disabilities:** It is the policy of the university that no otherwise qualified disabled student shall, solely by reason of his/her handicap, be excluded from participation in, or denied benefits of, or be subject to discrimination under any academic or Student Life program or activity. Disabled students may request help with academically related problems stemming from individual disabilities by contacting their instructor, school/department chair, or by contacting the university Chair of the Committee for Continuing Assistance for Disabled Students/ Director of Counseling Center (located in Lee Drain Annex, phone 936-294-1720). A student with a disability is encouraged to register with the university Counseling Center, as well as contacting their instructor about assistance needs. Accommodation cannot be made until the student has initiated the request with the Counseling Center. Every semester that the student desires accommodations, it is the student's responsibility to complete a Classroom Accommodation Request Form at the Counseling Center and follow the stated procedure in notifying faculty. Accommodations for disabled students are decided upon documentation and need on a case-by-case basis by the Counseling Center. All requests are handled with confidentiality according to university procedures.

**Religious Holy Days Policy:** Section 51.91(b) of the Texas Education Code requires that the university excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. University Policy 861001 provides procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). This request must be made in the first 15 days of the semester or the first 7 days of a summer session in which the absence(s) will occur. The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.

### Class Attendance

<http://www.shsu.edu/catalog/scholasticrequirements.html>

1. Regular and punctual class attendance is expected of each student at Sam Houston State University.
2. Each faculty member will keep a record of student attendance.
3. Each faculty member will announce the policies for accepting late work or providing makeup examinations. Students are expected to show appropriate cause for missing or delaying major assignments or examinations.
4. A student shall not be penalized for three or fewer hours of absences when examinations or other assigned class work has not been missed; however, at the discretion of the instructor, a student may be penalized for more than three hours of absences.
5. Each instructor is obligated to clarify in writing to each student enrolled in class at the beginning of the semester or summer session the instructor's classroom policy regarding absences.
6. Class absences will be recorded and counted only from the actual day of enrollment for the individual student in that specific class.
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