Welcome to BIOLOGY 343! This course will introduce you to the remarkable world of insects and their close relatives. We will emphasize many aspects of their biology including identification, classification, evolution, anatomy, physiology, and ecology.

Catalog description: three semester hours, two hours lecture, three hours lab per week. Basic principles of insect life. Anatomy, physiology, life cycles, classification, ecology and control methods. Required lab fee. Prerequisites: BIO 131, 133 or permission of instructor.

Instructor: Dr. Dan Bennett  
Department: Biology  
Email: bennettdj@sfasu.edu  
Phone: 936-468-5163; Office: S-210  
Office hours: T, R 9:30–12:00; widely available by appointment for other times

Lecture: T, R 1:00 – 1:50 (S-211); Lab: T 2:00 – 4:50 (S-211)

Required text: Marshall, S.A. Insects: Their Natural History and Diversity. (Bring to lab unless stated otherwise)


Student Learning Outcomes:  
1. Understand fundamentals of insect biology including aspects of physiology, anatomy, diversity, evolution, ecology, and systematics.  
2. Develop arthropod identification skills.  
3. Develop familiarity with arthropod survey methods and curatorial techniques.

Program Learning Outcomes:  
PLO 1. The student will demonstrate a good knowledge base in biological concepts. (Knowledge). The first PLO is achieved with each SLO listed above.  
PLO 6. The student will demonstrate preparation for future career and educational goals (Career Preparation). The sixth PLO is achieved with each SLO listed above.

GRADING SUMMARY  
Exam I: 20%  
Exam II: 20%  
Exam III: 20%  
Exam IV (final): 20%  
Lab activities (quizzes & weekly assignments): 17%  
Attendance and participation: 3%

GRADING SCALE:  
A = 90–100%; B = 80–89%; C = 70–79%; D = 60–69%; < 60% = F

EXAMS: Exams will include both lecture and lab material. Questions will comprise a mixture of true/false, multiple choice, fill in the blank, and short answer questions. It is crucial that you do not miss an exam. In the event of an excused absence, makeup exams will be given prior to the regularly scheduled exam, immediately after, or during finals week, at the discretion of the instructor. Only students with an excused absence will be allowed to make up an exam.

ACTIVITIES: Activities include assignments and quizzes and typically occur during or in preparation for lab. Quizzes are typically announced ahead of time but pop-quizzes are a possibility. The lowest quiz score will be dropped. A missed quiz will typically comprise that which is dropped. Let your instructor know if extraordinary circumstances
lead to missing multiple activities. Lab assignments often incorporate collecting samples from the field and processing them in the lab.

ATTENDANCE POLICY: Students are permitted two instances of lecture absence and two instances of tardiness during intervals between exams without penalty. Each instance of absence or tardiness beyond the second one will result in a 0.5% drop of the 3% available for the attendance/participation grade. Lab absences are handled on a case by case basis; unexcused absences will impact the attendance grade. Makeup assignments can be made available for missed assignments due to excused absences with the exception of quizzes (the first missed quiz will comprise that which is dropped). If unusual circumstances lead to excessive absence, discuss the situation with the instructor. Excused absences will be permitted for family emergencies, illness (doctor’s note may be required), and university sponsored events.

ACCEPTABLE STUDENT BEHAVIOR: Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom.

• Please do not carry on a separate conversation that might be distracting to other students.
• Keep cell phones silenced and stowed away. Texting or any use of phones may result in loss of attendance points and further reduction of one’s grade.
• No food or drink other than water is allowed in lecture or lab.

ACADEMIC INTEGRITY: Academic integrity is expected of everyone in this course. Any form of academic dishonesty will lead to the student receiving a failing grade for the entire course. Additionally, a Report of Academic Dishonesty form will be submitted to your Dean’s office.

SFA Policy A-9.1 is summarized as follows: Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism. Definition of Academic Dishonesty: Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one’s own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one’s paper without giving the author due credit. Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp

WITHHELD GRADES (Semester Grades Policy A-54): Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

STUDENTS WITH DISABILITIES: To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, Room 325, 468-3004/468-1004 (TDD), as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodation. For additional information, go to http://www.sfasu.edu/disabilityservices/. Please note that you must visit with me outside of class time concerning your request before I will be able to provide the accommodations described in the notification from ODS.
# TENTATIVE COURSE CALENDAR — Version 1

* Textbook required for lab unless stated otherwise

("G&C" = Gullan & Cranston, suggested text; "M" = Marshall, required text)

<table>
<thead>
<tr>
<th>WEEK/DAY</th>
<th>TOPICS</th>
</tr>
</thead>
</table>
| 1: Jan. 16 | **Lecture:** Intro – importance (day 1); measures of success (day 2) *(G&C: Ch 1; M: pp. 10-13)*; *(G&C: Ch 2; M: pp. 14-16)*  
**Lab:** No lab |
| 2: Jan. 21, 23 | **Lecture:** External anatomy: macrostructure cont., microstructure *(G&C: Ch 2)*; systematics *(G&C: Ch 7)*, Arthropoda overview  
**Lab:** Biological collections; supplies; handling specimens; microscope use; external anatomy; dichotomous keys/order identification |
| 3: Jan. 28, 30 | **Lecture:** Apterygota, Paleoptera *(M: Ch 1, Ch 2)*; Development *(G&C: Ch 6)*  
**Lab:** Animal phyla, arthropoda overview, Entognatha, Archaeognatha, Thysanura, Ephemeroptera, Odonata *(M: Ch 1, 2)* |
| 4: Feb. 4, 6* | **Lecture:** Orthopteroidea (exam 2 material) *(M: Ch 3-5)*; **Exam I, Feb. 6**  
**Lab:** TBA |
| 5: Feb. 11, 13 | **Lecture:** Reproduction; Hemipteroidea *(M: Ch 6)*  
**Lab:** Orthoptera |
| 6: Feb. 18, 20 | **Lecture:** Nutrition, digestion, excretion; Neuroptera, Coleoptera: Adephaga *(M: Ch 9, 10)*  
**Lab:** Hemipteroidea *(M: Ch 6)* |
| 7: Feb. 25, 27 | **Lecture:** Respiration, sensory system  
**Lab:** Neuroptera; Coleoptera: Adephaga *(Marshall: Ch 9, 10)* |
| 8: Mar. 3, 5* | **Lecture:** Coleoptera: Polyphaga (exam 3 material) *(M:Ch 10)*; **Exam II, Mar. 5**  
**Lab:** Outdoor lab |
| 9: Mar. 17, 19 | **Lecture:** Coleoptera: Polyphaga *(M: Ch 10)*  
**Lab:** Outdoor lab |
| 10: Mar. 24, 26 | **Lecture:** Movement; Diptera et al. *(M: Ch 11)*; Medical entomology  
**Lab:** Coleoptera: Polyphaga |
| 11: Mar. 31, Apr. 2 | **Lecture:** Medical entomology  
**Lab:** Diptera *(M: Ch 11)* |
| 12: Apr. 7* | **Lecture:** **Exam III, Apr. 7**  
**Lab:** Outdoor lab |
| 13: Apr. 14, 16 | **Lecture:** Hymenoptera *(M: Ch 12)*  
Parasitoid life history; Trichoptera, Lepidoptera *(M: Ch 7, 8)*  
**Lab:** TBA: Hymenoptera *(M: Ch 12)* |
| 14: Apr. 21, 23 | **Lecture:** Lepidoptera *(M: Ch 7, 8)*; insect plant interactions  
**Lab:** Outdoor lab |
| 15: Apr. 28, 30 | **Lecture:** Lepidoptera *(M: Ch 7, 8)*; sericulture; migration; insect societies *(M: Ch 12)*  
**Lab:** Lepidoptera |

- **Final exam:** Thursday May 7, 10:45