

**BIOL 3420-110, CRN 10015, Entomology**

Spring 2018 rev. 12.08.2017

Texas A&M University-Central Texas

**INSTRUCTOR AND CONTACT INFORMATION**

**Instructor:** Dr. Weiser Erlandson

**Office:** 404 Warrior Hall

**Phone:** 254-519-5723

**Email:** laura.erlandson@tamuct.edu

**Office Hours:** Monday: 9:30 – 11:30, Wednesday: 9:30 – 11:30

**Course Times:** Lecture TR 8:30 – 9:45; 315 WH

Laboratory T 10:00 – 1:00; 407 WH

**Mode of instruction and course access:**

This course meets face to face for a three hour lecture and a three hour laboratory for 16 weeks during the Spring 2018 semester. Supplemental materials may be included on the A&M-Central Texas Canvas Learning Management System [<https://tamuct.instructure.com>].

**Student-instructor interaction:**

I am available during my office hours, by appointment, or you can just stop by my office; if I'm there, I'd be glad to chat. I encourage you to either call or e-mail me so we can find a time that is mutually convenient.

**911 Cellular:**

Emergency Warning System for Texas A&M University – Central Texas

911Cellular is an emergency notification service that gives Texas A&M University-Central Texas the ability to communicate health and safety emergency information quickly via email, text message, and social media. All students are automatically enrolled in 911 Cellular through their myCT email account.

Connect at [911Cellular](https://portal.publicsafetycloud.net/Texas-AM-Central/alert-management) [<https://portal.publicsafetycloud.net/Texas-AM-Central/alert-management>] to change where you receive your alerts or to opt out. By staying enrolled in 911Cellular, university officials can quickly pass on safety-related information, regardless of your location.

**COURSE INFORMATION****Course Overview and description:**

Explore the largest and most diverse group of animals on our planet. Examining the physiology, morphology, life histories, diversity, ecology, and evolution of insects. The laboratory focuses on the anatomy and classification of insects. Insect collection is required.

Prerequisite(s): BIOL 1407.

### **Student Learning Outcomes:**

Students will:

- a. demonstrate a strong basic knowledge of entomology, including understanding of the importance of insects to human society and concerns related to disease, insecticide use, introduced pests, and ecosystem damage
- b. recognize and identify the basic insect orders and some insect families on sight
- c. understand the ecological roles that insects have in their respective ecosystems
- d. demonstrate basic laboratory and field techniques
- e. develop the ability to think scientifically and evaluate information critically

### **Required Reading and Textbook(s):**

Gullan, P.J., and Cranston, P.S. 2014. The insects: an outline of entomology 5<sup>th</sup> edition. Wiley-Blackwell. ISBN: 978-1118846155

Castner, J.L. 2001. Photographic Atlas of Entomology & Guide to Insect Identification. ISBN: 978-0962515040

### **COURSE REQUIREMENTS**

35%	Three lecture exams
20%	Final Comprehensive Exam
15%	Laboratory practical exams
20%	Insect Collection
5%	Insect Rearing
5%	Participation

### **Grading Criteria Rubric and Conversion**

**A 4.00 (90 +)** Achievement that is outstanding relative to the level necessary to meet course requirements.

**B 3.00 (80-89%)** Achievement that is significantly above the level necessary to meet course requirements.

**C 2.00 (70–79%)** Achievement that meets the course requirements in every respect.

**D 1.00 (60–69%)** Achievement that is worthy of credit even though it fails to meet fully course requirements.

**F 0.00 (<60%)** Represents failure and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an “I” (incomplete).

**I (Incomplete)** The “I” shall be assigned at the discretion of the instructor when, due to extraordinary circumstances, the student was prevented from completing the work of the course on time. The assignment of an “I” requires a written agreement between the instructor and student specifying the time and manner in which the student will complete the course requirements. In no event may any such written agreement allow a period of longer than one

year to complete the course requirements. For graduate and professional students, an “I” is to remain on the transcript until changed by the instructor or department. For all other students, work to make up an I must be submitted within one year of the last day of final examinations of the term in which the “I” was given; if not submitted by that time, then the “I” will automatically change to an F. *To obtain an incomplete you must have been doing passing work in the course*

## **COURSE OUTLINE AND CALENDAR**

### **Complete Course Calendar**

1. Week of January 15
  - a. Lecture Topic: Biodiversity
    - i. Chapter 1
  - b. Laboratory: Laboratory Safety and check in
2. Week of January 22
  - a. Lecture Topic: External Anatomy
    - i. Chapter 2
  - b. Laboratory: Collecting and preserving insects; introduction to using keys
3. Week of January 29
  - a. Lecture Topic: Internal anatomy and physiology
    - i. Chapter 3
  - b. Laboratory: Non-insectan hexapods and primitive insect orders
4. Week of February 5
  - a. Lecture Topic: Sensory systems and behavior
    - i. Chapter 4
  - b. Laboratory: Orthopteroid insect orders
5. Week of February 12
  - a. Lecture Topic: Reproduction (Tuesday) and Exam I (Thursday)
    - i. Chapter 5
  - b. Laboratory: Hemiptera, Pscoptera, Phthiraptera
6. Week of February 19
  - a. Lecture Topic: Reproduction and Insect development/life histories
    - i. Chapters 5, 6
  - b. Laboratory: Coleoptera, Neuroptera
7. Week of February 26
  - a. Lecture Topic: Insect systematics
    - i. Chapter 7
  - b. Laboratory: Review for Laboratory practical exam I
8. Week of March 5

- a. Lecture Topic: Insect evolution and biogeography
  - i. Chapter 8
- b. Laboratory: Laboratory practical exam I
- 9. Week of March 12 - *Spring Break, No Classes this week*
- 10. Week of March 19
  - a. Lecture Topic: Ground dwelling insects (Tuesday) and Exam II (Thursday)
    - i. Chapter 9
  - b. Laboratory: Field trip (dress appropriately)
- 11. Week of March 26
  - a. Lecture Topic: TBA (Aquatic insects)
    - i. Chapter 1
  - b. Laboratory: Work on your insect collections
- 12. Week of April 2
  - a. Lecture Topic: Insects and plants
    - i. Chapter 11
  - b. Laboratory: Diptera, Siphonaptera, Mecoptera, Strepsiptera
- 13. Week of April 9
  - a. Lecture Topic: Insect predation and parasitism
    - i. Chapter 13
  - b. Laboratory: Field trip (dress appropriately)
- 14. Week of April 16
  - a. Lecture Topic: Insect societies
    - i. Chapter 12
  - b. Laboratory: Lepidoptera, Trichoptera
- 15. Week of April 23
  - a. Lecture Topic: Insect defense
    - i. Chapter 14
  - b. Laboratory: Hymenoptera
- 16. Week of April 30
  - a. Lecture Topic: Medical/veterinary entomology and Pest Management
    - i. Chapters 15, 16
  - b. Laboratory: Laboratory Practical #2, checkout
- 17. Week of May 7
  - a. Final Comprehensive Exam

## **TECHNOLOGY REQUIREMENTS AND SUPPORT**

### **Technology Requirements**

This course will use the A&M-Central Texas Instructure Canvas learning management system as a supplement to the Face to Face meetings.

Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com>].

Username: Your MyCT username (xx123 or everything before the "@" in your MyCT e-mail address)

Password: Your MyCT password

### **Canvas Support**

Use the Canvas Help link, located at the bottom of the left-hand menu, for issues with Canvas. You can select "Chat with Canvas Support," submit a support request through "Report a Problem," or call the Canvas support line: 1-844-757-0953.

For issues related to course content and requirements, contact your instructor.

### **Other Technology Support**

For log-in problems, students should contact Help Desk Central.

24 hours a day, 7 days a week:

Email: [helpdesk@tamu.edu](mailto:helpdesk@tamu.edu)

Phone: (254) 519-5466

[Web Chat](http://hdc.tamu.edu): [<http://hdc.tamu.edu>]

*Please let the support technician know you are an A&M-Central Texas student.*

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## **UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES**

### **Drop Policy.**

If you discover that you need to drop this class, you must complete a [Drop Request Form](https://www.tamuct.edu/registrar/docs/Drop_Request_Form.pdf) [[https://www.tamuct.edu/registrar/docs/Drop\\_Request\\_Form.pdf](https://www.tamuct.edu/registrar/docs/Drop_Request_Form.pdf)].

Professors cannot drop students; this is always the responsibility of the student. The Registrar's Office will provide a deadline on the Academic Calendar for which the form must be completed, signed and returned. Once you return the signed form to the Registrar's Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Registrar's Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

### **Academic Integrity.**

Texas A&M University -Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Academic integrity is defined as a commitment to honesty, trust, fairness, respect, and responsibility. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. Academic misconduct is any act that improperly affects a true and honest evaluation of a student's academic performance and includes, but is not limited to, cheating on an examination or other academic work, plagiarism and improper citation of sources, using another student's work, collusion, and the abuse of resource materials. All academic misconduct concerns will be reported to the university's Office of Student Conduct. Ignorance

of the university's standards and expectations is never an excuse to act with a lack of integrity. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

### **Academic Accommodations.**

At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier free education. The Department of Access and Inclusion is responsible for ensuring that students with a disability receive equal access to the University's programs, services and activities. If you believe you have a disability requiring reasonable accommodations please contact the Department of Access and Inclusion at (254) 501-5831. Any information you provide is private and confidential and will be treated as such.

For more information please visit our [Access & Inclusion](https://www.tamuct.edu/student-affairs/access-inclusion.html) webpage [https://www.tamuct.edu/student-affairs/access-inclusion.html].

Texas A&M University-Central Texas supports students who are pregnant and/or parenting. In accordance with requirements of Title IX and guidance from US Department of Education's Office of Civil Rights, the Dean of Student Affairs' Office can assist students who are pregnant and/or parenting in seeking accommodations related to pregnancy and/or parenting. For more information, please visit <https://www.tamuct.departments/index.php>. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these [requirements and guidelines online](http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf), please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

Title IX of the Education Amendments Act of 1972 prohibits discrimination on the basis of sex and gender – including pregnancy, parenting, and all related conditions. A&M-Central Texas is able to provide flexible and individualized reasonable accommodation to pregnant and parenting students. All pregnant and parenting students should contact the Division of Student Affairs at 254-501-5909 to seek out assistance. Students may also contact the University's Title IX Coordinator.

### **Tutoring.**

Tutoring is available to all A&M-Central Texas students, both on-campus and online. On-campus subjects tutored include Accounting, Advanced Math, Biology, Finance, Statistics, Mathematics, and Study Skills. Tutors are available at the Tutoring Center in Warrior Hall, Suite 111.

If you have a question regarding tutor schedules, need to schedule a tutoring session, are interested in becoming a tutor, or any other question, contact Academic Support Programs at 254-519-5796, or by emailing Dr. DeEadra Albert-Green at [deeadra.albertgreen@tamuct.edu](mailto:deeadra.albertgreen@tamuct.edu).

Chat live with a tutor 24/7 for almost any subject on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log-in and receive FREE online tutoring and writing support. This tool provides tutoring in over forty subject areas. Access

Tutor.com through Canvas.

**University Writing Center:** Located in 416 Warrior Hall, the University Writing Center (UWC) at Texas A&M University-Central Texas is a free workspace open to all TAMUCT students from 10am-5pm Monday-Thursday with satellite hours in the University Library Monday-Thursday from 6:00-9:00pm. Students may arrange a one-on-one session with a trained and experienced writing tutor by visiting the UWC during normal operating hours (both half-hour and hour sessions are available) or by making an appointment via [WCOOnline](#) at [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at [bruce.bowles@tamuct.edu](mailto:bruce.bowles@tamuct.edu) to schedule an online tutoring session. Tutors are prepared to help writers of all levels and abilities at any stage of the writing process.

While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the University Writing Center is here to help!

If you have any questions about the University Writing Center, please do not hesitate to contact Dr. Bruce Bowles Jr. at [bruce.bowles@tamuct.edu](mailto:bruce.bowles@tamuct.edu).

### **University Library.**

The University Library provides many services in support of research across campus and at a distance. We offer over 200 electronic databases containing approximately 250,000 eBooks and 82,000 journals, in addition to the 72,000 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On-campus, the library offers technology including cameras, laptops, microphones, webcams, and digital sound recorders.

Research assistance from a librarian is also available twenty-four hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place on Skype or in-person at the library. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group work spaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and

laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our [Library website](https://tamuct.libguides.com/) [https://tamuct.libguides.com/].

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### **A Note about Sexual Violence at A&M-Central Texas**

Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don't agree with their behaviors and tell survivors we will support them. Your actions matter. Don't be a bystander; be an agent of change. For additional information on campus policy and resources visit the [Title IX webpage](https://www.tamuct.edu/departments/compliance/titleix.php) [https://www.tamuct.edu/departments/compliance/titleix.php].

### **INSTRUCTOR POLICIES.**

*Read these carefully as I am strict with my policies.*

**Grading Policy and Point Breakdown.** Grades in this course will be criteria-based on a number of activities including exams, discussion, and projects. This means that grades will not be curved and anyone achieving a 90% or above will receive an A in this course.

**Grade Dispute Policy.** Grading disputes must be put in writing (with justification such as supporting statements from the text or another credible source) and given to me no earlier than 24 hours after the assignment has been returned. I will consider your request carefully, but reserve the right to adjust your grade up or down.

**Assignments.** These will be varied in nature, but will consist of activities that cause the students to reflect upon the state of knowledge of the topic of the week, how that topic is perceived in the media, and/or analysis of specific research projects relevant to the subject. All assignments are to be turned in, on time (i.e. at class time on due date), to the Blackboard website. I will distribute instructions on how to do this. I will not accept e-mailed assignments of any kind.

**Late Assignments.** I expect all assignments to be turned in on time. Late assignments interfere with my ability to provide timely, detailed feedback, as well as with your ability to learn and process new material. Accordingly, any unauthorized late assignment will receive a 5% reduction in grade for each day it is late. No assignments will be accepted after it has been graded and returned.



**Exams.** The exams will be a mixture of matching, multiple choice and short answer, designed to provoke reflection, critical thought, and application of knowledge. You will receive a list of several sample or real exam questions ahead of time. You are encouraged to prepare for the exam by reviewing reading materials, outlining a draft of a response, and discussing these thoughts with your peers. You will then demonstrate your individual, integrated thoughts on the topic in a closed-book exam during the class period.

**Missed exams.** If you know you will miss an exam, please contact me BEFORE the exam. I will gladly give make-up exams if the student has an unavoidable reason for missing the exam (i.e. death in the family, severe illness). Keep in mind that I will expect documentation of your reason for missing the exam (e.g. doctor's note, obituary notice). Exams must be made up within a week of the original scheduled date, no exceptions regardless of excuse.

**Labs.** A maximum of 3 absences will be allowed; additional absences in lab will result in an "F" for the entire course, regardless of excuse.

**What I expect of you.** To get the most out of this class, you are expected to conduct yourself in a professional manner, which includes contributing to class discussions, being punctual, and notifying me of absences in advance.

**Class Attendance.** I expect that you attend each class session and arrive on time. If an unavoidable situation arises that prevents you from attending class, I expect that you also promptly contact me to discuss the missed material and get the notes from a classmate. I will not distribute my notes to students as they are often abbreviated and do not contain the detail needed to sufficiently understand the material.

**What you can expect of me.** You can expect me to start and end class on time, be available through office hours, e-mail, and by appointment, be responsive to student suggestions for course improvement, answer questions to the fullest extent possible and/or direct you to appropriate resources, return graded assignments and exams within a reasonable time frame, and treat you with respect as future colleagues.

**Discussion.** The topics in this class encompass a diversity of issues that merit in-depth thought and discussion. Since individuals will be expressing their opinions, I expect that will you respect others' contributions, as you would want them to do for you.

**Credits and Workload expectations.** For undergraduate courses, one credit is defined as equivalent to an average of two hours of learning effort per week (over a full semester) necessary for an average student to receive an average grade for the course. A student taking a four-credit class that meets for four hours a week should expect to spend an additional eight hours a week outside the classroom in order to earn an average grade.

**Class Structure.** Classes will involve a balance of active lecture and engaging learning activities. I believe that students learn the theories and concepts much better when they have an active role. I know that this may be new to some of you, but please keep an open mind and I know that you will get more out of this class because of it.

**Copyright Notice.**

Students should assume that all course material is copyrighted by the respective author(s). Reproduction of course material is prohibited without consent by the author and/or course instructor. Violation of copyright is against the law and Texas A&M University-Central Texas' Code of Academic Honesty. All alleged violations will be reported to the Office of Student Conduct.

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**Important University Dates:**

**January 2018**

January 2, (Tuesday) Winter Break Ends  
January 2, (Tuesday) Priority Deadline for Admissions applications  
January 5, (Friday) VA Certification Request Priority Deadline  
January 11, (Thursday) Convocation  
January 12, (Friday) Tuition and Fee payment deadline (16 week & 1st 8 week)  
January 15, (Monday) Martin L. King Jr. Day  
January 16, (Tuesday) ADD/DROP/LATE REGISTRATION BEGINS (\$25 fee assessed for late registrants) (16 week & 1st 8 week)  
January 16, (Tuesday) Classes Begins  
January 18, (Thursday) ADD/DROP/LATE REGISTRATION ENDS (16 week & 1st 8 week)  
January 23, (Tuesday) Last day to drop 1st 8-week classes with no record  
January 31, (Wednesday) Last day to drop 16 week classes with no record

**February 2018**

February 2, (Friday) Priority Deadline to Submit Graduation Application  
February 9, (Friday) Last day to drop a 1st 8-week class with a Q or withdraw with a W  
February 15, (Thursday) Last day to apply for Clinical Teaching  
February 23, (Friday) Student End of Course Survey Opens (1st 8-Week Classes)

**March 2018**

March 1, (Thursday) Deadline to submit application to Teacher Education Program  
March 2, (Thursday) Deadline to Submit Graduation Application for Ceremony Participation  
March 9, (Friday) 1st 8 week classes end  
March 9, (Friday) Deadline for Admissions applications  
March 11, (Sunday) Student End of Course Survey Closes (1st 8-Week Classes)  
March 12, (Monday) Spring Break Begins  
March 12, (Monday) 1st 8-week grades from faculty due by 3pm  
March 15, (Thursday) Tuition and Fee Payment Deadline (2nd 8-week classes)

March 16, (Friday) Spring Break Ends  
March 19, (Monday) 2nd 8 week begins  
March 19, (Monday) Summer Advising Starts  
March 19, (Monday) Class Schedule Published  
March 19, (Monday) ADD/DROP/LATE REGISTRATION BEGINS (\$25 fee assessed for late registrants) (2nd 8-week classes)  
March 21, (Wednesday) ADD/DROP/LATE REGISTRATION ENDS (2nd 8-week classes)  
March 27, (Tuesday) Last day to drop 2nd 8-week classes with no record  
March 30, (Friday) Last day to drop a 16-week course with a Q or withdraw with a W

#### **April 2018**

April 1, (Sunday) GRE/GMAT scores due to Office of Graduate Studies  
April 2, (Monday) Scholarship Deadline  
April 2, (Monday) Registration begins  
April 5, (Thursday) Priority Deadline for International Student Admission Applications  
April 13, (Friday) Last day to drop a 2nd 8-week class with a Q or withdraw with a W\*  
April 13, (Friday) Deadline for submission of final committee-edited theses with committee approval signatures to Office of Graduate Studies  
April 27, (Friday) Student End of Course Survey Opens (16 Week and 2nd 8-Week Classes)

#### **May 2018**

May 7-11, Finals Week  
May 11, (Friday) Last day to file for Degree Conferral (Registrar's Office)(\$20 Late Application Fee applies)  
May 11, (Friday) Spring Term Ends  
May 11, (Friday) Last day to withdraw from the university (16 week and 2nd 8 week classes)  
May 11, (Friday) Last day to apply for \$1000 Tuition Rebate for Spring graduation (5pm)  
May 12, (Saturday) Commencement Ceremony Bell County Expo Center 7:00 p.m.  
May 13, (Sunday) Student End of Course Survey Closes (16 Week and 2nd 8-Week Classes)  
May 14, (Monday) Minimester begins  
May 15, (Tuesday) Last Day to clear Thesis Office  
May 5, (Tuesday) Final grades due from faculty by 3pm (16 week & 2nd 8 week)  
May 21, (Monday) Priority Deadline for Admissions applications  
May 25, (Friday) VA Certification Request Priority Deadline  
May 28, (Monday) Memorial Day

# BIOL 3420 – Entomology

## Syllabus Contract

### Directions:

- First, read the syllabus.
- Second, read the statement below to confirm your personal reading and understanding of the contents of the syllabus.
- Third, provide confirmation by printing the document and providing your signature and date of completion in the space provided below.
- Last, submit this contract to me. Note that your grade for the first assignment will not be calculated until this contract is received.

I have received a copy of the syllabus. I have read and understand the policies of this course as stated in the syllabus.

**Print Name** \_\_\_\_\_

**Signature** \_\_\_\_\_

**Date** \_\_\_\_\_