

BIOL 3420-110, CRN 11535, ENTOMOLOGY

Spring 2022 rev. 01.12.2022

Texas A&M University-Central Texas

COURSE DATES, MODALITY, AND LOCATION

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 2022 semester. Supplemental materials may be included on the A&M-Central Texas Canvas Learning Management System [<https://tamuct.instructure.com>]. Based on the Carnegie unit, expect for every one credit hour in which you enroll, you will spend approximately two to three hours outside of class studying or doing homework.

INSTRUCTOR AND CONTACT INFORMATION

Instructor: Dr. Weiser Erlandson

Office: 302H Beck Family Heritage Hall

Phone: 254-519-5723

Email: laura.erlandson@tamuct.edu

Office Hours: By appointment, in person or virtual

Course Times: Lecture TR 8:00 – 9:15; 407 WH

Laboratory T 9:30 – 12:30; 407 WH

Student-instructor interaction

Student-instructor interaction

This course will meet *on campus on Tuesday and Thursday each week*. All on campus interactions will comply with the current safety guidelines to ensure reduction of the possibility of COVID-19 transmission.

You may contact me through email or CANVAS. Expect me to respond back to any emails within 24 hours (business days only). If I do not, please check back with me to be sure that your email was not lost in transit.

In the event that COVID-19 or variant precipitates a lockdown of campus, all lectures will be synchronous via WebEx. All exams will be administered via CANVAS LMS using Proctorio.

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

SAFEZONE. SafeZone provides a public safety application that gives you the ability to call for help with the push of a button. It also provides Texas A&M University-Central Texas the ability to communicate emergency information quickly via push notifications, email, and text messages. All students automatically receive email and text messages via their myCT accounts.

Downloading SafeZone allows access to push notifications and enables you to connect directly

for help through the app.

You can download SafeZone from the app store and use your myCT credentials to log in. If you would like more information, you can visit the [SafeZone](http://www.safezoneapp.com) website [www.safezoneapp.com].

To register SafeZone on your phone, please follow these 3 easy steps:

1. Download the SafeZone App from your phone store using the link below:
 - [iPhone/iPad](https://apps.apple.com/app/safezone/id533054756): [https://apps.apple.com/app/safezone/id533054756]
 - [Android Phone / Tablet](https://play.google.com/store/apps/details?id=com.criticalarc.safezoneapp)
[https://play.google.com/store/apps/details?id=com.criticalarc.safezoneapp]
2. Launch the app and enter your myCT email address (e.g. {name}@tamuct.edu)
3. Complete your profile and accept the terms of service

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 5th 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 (SLOs: a, c, e) |
| 20% | Final Comprehensive Exam (SLOs: a, c, e) |
| 15% | Laboratory practical exams (SLOs: b, d) |
| 25% | Insect Collection (SLOs: b, c, d) |
| 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 17
 - a. Lecture Topic: Biodiversity
 - i. Chapter 1
 - b. Laboratory: Laboratory Safety and check in
2. Week of January 24
 - a. Lecture Topic: External Anatomy
 - i. Chapter 2
 - b. Laboratory: Collecting and preserving insects; introduction to using keys
3. Week of January 31
 - a. Lecture Topic: Internal anatomy and physiology
 - i. Chapter 3
 - b. Laboratory: Non-insectan hexapods and primitive insect orders
4. Week of February 7

- a. Lecture Topic: Sensory systems and behavior
 - i. Chapter 4
 - b. Laboratory: Orthopteroid insect orders
- 5. Week of February 14
 - a. Lecture Topic: Reproduction (Tuesday) and Exam I (Thursday)
 - i. Chapter 5
 - b. Laboratory: Hemiptera, Psocodea
- 6. Week of February 21
 - a. Lecture Topic: Reproduction and Insect development/life histories
 - i. Chapters 5, 6
 - b. Laboratory: Coleoptera, Neuroptera
- 7. Week of February 28
 - a. Lecture Topic: Insect systematics
 - i. Chapter 7
 - b. Laboratory: Review for Laboratory practical exam I
- 8. Week of March 7
 - a. Lecture Topic: Insect evolution and biogeography
 - i. Chapter 8
 - b. Laboratory: Laboratory practical exam I
- 9. Week of March 14 - *Spring Break, No Classes this week*
- 10. Week of March 21
 - a. Lecture Topic: Ground dwelling insects (Tuesday) and Exam II (Thursday)
 - i. Chapter 9
 - b. Laboratory: Field trip (dress appropriately)
- 11. Week of March 28
 - a. Lecture Topic: TBA (Aquatic insects)
 - i. Chapter 1
 - b. Laboratory: Diptera, Siphonaptera, Mecoptera, Strepsiptera
- 12. Week of April 4
 - a. Lecture Topic: Insects and plants
 - i. Chapter 11
 - b. Laboratory: Lepidoptera, Trichoptera
- 13. Week of April 11
 - a. Lecture Topic: Insect predation and parasitism
 - i. Chapter 13
 - b. Laboratory: Field trip (dress appropriately)
- 14. Week of April 18
 - a. Lecture Topic: Insect societies and Exam III (Thursday)

- i. Chapter 12
 - b. Laboratory: Work on your insect collections
- 15. Week of April 25
 - a. Lecture Topic: Insect defense
 - i. Chapter 14
 - b. Laboratory: Hymenoptera
- 16. Week of May 2
 - a. Lecture Topic: Medical/veterinary entomology and Pest Management
 - i. Chapters 15, 16
 - b. Laboratory: Insect collection due, checkout
- 17. Week of May 9
 - a. Laboratory Practical #2 - Tuesday
 - b. Final Comprehensive Exam - Thursday

Important University Dates

<https://www.tamuct.edu/registrar/academic-calendar.html>

The following calendar is proposed and scheduled to change without notice.

Date	Description
January 17, 2022	Martin Luther King, Jr Day (University Closed)
January 18, 2022	Add, Drop and Late Registration Begins for 16- and First 8-Week Classes \$25 Fee assessed for late registrants
January 18, 2022	Classes Begin for Spring Semester
January 20, 2022	Deadline for Add, Drop, and Late Registration for 16- and First 8-Week Classes
February 2, 2022	Deadline to Drop 16-Week Classes with No Record
March 14-18, 2022	Spring Break (No Classes - Administrative Offices Open)
March 25, 2022	Deadline for Spring Graduation Application for Ceremony Participation
April 8, 2022	Deadline to Drop 16-Week Classes with a Quit (Q) or Withdraw (W)
May 13, 2022	Deadline to Withdraw from the University for 16- and Second 8-Week Classes
May 13, 2022	Spring Semester Ends
May 13, 2022	Deadline for Applications for Tuition Rebate for Spring Graduation (5pm)

<i>Date</i>	<i>Description</i>
<i>May 13, 2022</i>	<i>Deadline for Spring Degree Conferral Applications to the Registrar's Office. \$20 Late Application Fee.</i>
<i>May 14, 2022</i>	<i>Spring 2022 Commencement at Bell County Expo 7 PM</i>

TECHNOLOGY REQUIREMENTS AND SUPPORT

Technology Requirements

This course will use the A&M-Central Texas Instructure Canvas learning management system. **We strongly recommend the latest versions of Chrome or Firefox browsers. Canvas no longer supports any version of Internet Explorer.**

Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com/>] or access Canvas through the TAMUCT Online link in myCT [<https://tamuct.onecampus.com/>]. You will log in through our Microsoft portal.

Username: Your MyCT email 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.

Online Proctored Testing

A&M-Central Texas uses Proctorio for online identity verification and proctored testing. This service is provided at no direct cost to students. If the course requires identity verification or proctored testing, the technology requirements are: Any computer meeting the minimum computing requirements, plus web camera, speaker, and microphone (or headset). Proctorio also requires the Chrome web browser with their custom plug in.

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

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.

UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

Drop Policy

If you discover that you need to drop this class, you must complete the [Drop Request](#) Dynamic

Form through Warrior Web.

[<https://dynamicforms.ngwebsolutions.com/casAuthentication.ashx?InstID=eaed95b9-f2be-45f3-a37d-46928168bc10&targetUrl=https%3A%2F%2Fdynamicforms.ngwebsolutions.com%2FSubmit%2FForm%2FStart%2F53b8369e-0502-4f36-be43-f02a4202f612>].

Faculty 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. Once you submit the completed 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. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. All academic misconduct concerns will be referred to the Office of Student Conduct. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more [information regarding the Student Conduct process](https://www.tamuct.edu/student-affairs/student-conduct.html),
[<https://www.tamuct.edu/student-affairs/student-conduct.html>].

If you know of potential honor violations by other students, you may [submit a report](https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0),
[https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0].

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 Warrior Center for Student Success, Equity 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 Office of Access and Inclusion, WH-212; or call (254) 501-5836. Any information you provide is private and confidential and will be treated as such.

For more information, please visit our [Access & Inclusion](https://tamuct.instructure.com/courses/717) Canvas page (log-in required)
[<https://tamuct.instructure.com/courses/717>]

Important information for Pregnant and/or Parenting Students

Texas A&M University-Central Texas supports students who are pregnant and/or parenting. In accordance with requirements of Title IX and related 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. Students should seek out assistance as early in the pregnancy as possible. For more information, please visit [Student Affairs](https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html) [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these [requirements and guidelines](http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf) online, 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 Associate Dean in 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 virtually and in-person. Student success coaching is available online upon request.

If you have a question, are interested in becoming a tutor, or in need of success coaching contact the Warrior Center for Student Success, Equity and Inclusion at (254) 501-5836, visit the Warrior Center at 212 Warrior Hall, or by emailing WarriorCenter@tamuct.edu.

To schedule tutoring sessions and view tutor availability, please visit [Tutor Matching Services](https://tutormatchingservice.com/TAMUCT) [https://tutormatchingservice.com/TAMUCT] or visit the Tutoring Center in 111 Warrior Hall.

Chat live with a remote tutor 24/7 for almost any subject from on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log in and receive online tutoring support at no additional cost. This tool provides tutoring in over 40 subject areas except writing support. Access Tutor.com through Canvas.

University Writing Center

University Writing Center: Located in Warrior Hall 416, the University Writing Center (UWC) at Texas A&M University–Central Texas (A&M–Central Texas) is a free service open to all A&M–Central Texas students. For the Spring 2022 semester, the hours of operation are from 10:00 a.m.-5:00 p.m. Monday thru Thursday in Warrior Hall 416 (with online tutoring available every hour as well) with satellite hours available online only Monday thru Thursday from 6:00-9:00 p.m. and Saturday 12:00-3:00 p.m.

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 UWC is here to help!

Students may arrange a one-to-one session with a trained and experienced writing tutor by making an appointment via [WOnline](https://tamuct.mywconline.com/) [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the UWC, need any assistance with scheduling, or would like to schedule a recurring appointment with your favorite tutor by making an appointment via [WOnline](https://tamuct.mywconline.com/) [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the UWC, need any assistance with scheduling, or would like to schedule a recurring appointment with your favorite tutor.

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 400,000 eBooks and 82,000 journals, in addition to the 96,000 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 24 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 virtually through WebEx, Microsoft Teams or in-person at the library. [Schedule an appointment here](https://tamuct.libcal.com/appointments/?g=6956) [https://tamuct.libcal.com/appointments/?g=6956]. 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](http://tamuct.libguides.com/index) [http://tamuct.libguides.com/index].

OPTIONAL POLICY STATEMENTS

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 Wellness and 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/compliance/titleix.html) [https://www.tamuct.edu/compliance/titleix.html].

Behavioral Intervention

Texas A&M University-Central Texas cares about the safety, health, and well-being of its students, faculty, staff, and community. If you are aware of individuals for whom you have a concern, please make a referral to the Behavioral Intervention Team. Referring your concern shows you care. You can complete the [referral](https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2) online [https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2].

Anonymous referrals are accepted. Please see the [Behavioral Intervention Team](https://www.tamuct.edu/bit) website for more information [https://www.tamuct.edu/bit]. If a person's behavior poses an imminent threat to you or another, contact 911 or A&M-Central Texas University Police at 254-501-5805.

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. There are weekly homework assignments (CANVAS quizzes) based on each chapter we cover in class. In addition, there may be additional assignments throughout the semester; these will be announced and given sufficient time to complete. All assignments are to be turned in, on time, to the CANVAS 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 one week past the due date.

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.

1. There will be no bathroom breaks allowed during any exam. Be sure that you address this issue before beginning an exam.
2. Any student needing to take an exam at a different time as rest of students due to sickness or other accommodations will receive a different version of exam. This includes sickness, special accommodations, etc...
3. All students needing special accommodations must submit an accommodation form from the Office of Access and Inclusion listing the specific accommodations needed. Students are responsible for scheduling their own exam times with the TAMUCT Testing Center.
4. Any student missing an exam in class for any other reason (i.e. illness, death in family, etc...) must provide documentation for missing the exam (e.g. doctor's note, obituary notice, etc...). Exams must be made up within one week of original scheduled date, no exceptions.
5. All backpacks and materials as well as cell phones, smart watches and other electronic devices, must be turned off and placed at the front of the room on test day.
6. Jackets, sweaters, etc must be placed in the front of the room on test day, unless otherwise indicated by teacher.

Accommodated exams. All students needing special accommodations must submit an accommodation form from the Office of Access and Inclusion (see above) listing the specific accommodations needed. Students are responsible for scheduling their own exam times with the TAMUCT Testing Center.

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. In extreme circumstances, discuss with instructor BEFORE you reach 3 absences.

Laboratory Safety training. All students are required to take the mandatory Laboratory Safety Training Module - found on in your Modules tab in CANVAS. You must take the training and bring the signed "Safety Agreement Form" to your instructor before you are allowed in lab!!! This is YOUR RESPONSIBILITY - any lab absences because you have not taken the training will be considered unexcused!

Laboratory Coats. Students are required to purchase a laboratory coat from the TAMUCT Hanik Bookstore in Founder's Hall. Students must keep their laboratory coat in the laboratory room (you will be provided a storage bag); you cannot transport coats from lab to lab or bring outside the laboratory

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. Any inappropriate or offensive behavior of any kind (in class/lab/office or on assignments/exams) will be subject to a penalty commensurate with behavior, including a Behavioral Intervention Team report to Student Services.

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 may 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 (either in lab or in class). 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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BIOL 3420 — Entomology

INSECT COLLECTION Spring 2022

Name _____

COLLECTION EVALUATION:

Category	Points Possible	Points Earned
Required Specimens (100 minimum)	150	
(-1 for each family less than 50) (-1 for each specimen absent)		
Accuracy		
(-1 for each misidentification)		
Technique of preparation	25	
(According to accepted procedures)		
Variety		
(Representation of species and modifications within each order)	25	
Total points	150	

**Texas A&M University – Central Texas reserves the right to retain specimens from the student collections*

Insect Order Checklist:

Indicate how many specimens from each order/family present in your collection; write the names of individual families on the lines provided (must total at least 100 with at least 50 different families). Immature insects are NOT allowed (except aphids and antlions). **You are only required to identify your insects to the Family level for BIOL 3420 ** Remember **any misidentification** will require me to take points off, so I suggest NOT identifying insects beyond what is required for your class!

Checklist starts on next page.

Protura

Collembola

Diplura

Archaeognatha

Zygentoma

Embiidina

Ephemeroptera

Odonata: SO Zygoptera

Odonata: SO Epirocta: IO Anisoptera

Blattodea: Roach families

Blattodea: SO Termitoidae

Mantodea

Dermaptera

Plecoptera

Orthoptera: SO Caelifera

Orthoptera: SO Ensifera

Phasmatodea

Psocodea: SO Psocomorpha (formerly Psocoptera)

Psocodea: SO Troctomorpha: SF Anoplura

Psocodea: SO Troctomorpha: SF Ischnocera
(formerly Mallophaga)

Hemiptera: SO Heteroptera

Hemiptera: SO Auchenorrhyncha

Hemiptera: Sternorrhyncha

Thysanoptera

Megaloptera

Raphidioptera

Neuroptera

Coleoptera: SO Adephaga

Coleoptera: SO Polyphaga

Mecoptera

Strepsiptera

Diptera

Hymenoptera: SO Symphyta

Hymenoptera: SO Apocrita

Siphonaptera

Trichoptera

Lepidoptera: SF Papilionoidea

Lepidoptera: Moth families

