

BIOL 3401-120, CRN 81291, ECOLOGY

Fall 2022

Texas A&M University-Central Texas

COURSE DATES, MODALITY, AND LOCATION

This will be a 16-week course and will be taught face to face in the classroom.

August 22, 2022-December 7, 2022

Time/Day: Lecture: MW 9:30 – 10:45; Laboratory: W 11:15 – 2:15

Where: Lecture & Laboratory: 407 Warrior Hall

This course meets face-to-face, with supplemental materials made available online through the A&M-Central Texas Canvas Learning Management System [<https://tamuct.instructure.com/>].

INSTRUCTOR AND CONTACT INFORMATION

Instructor: Lauren Schachner

Office: Heritage Hall 302S

Phone: N/A

Email: CANVAS inbox or l.schachner@tamuct.edu

Office Hours

Monday 11:00am to 1:00pm

Student-instructor interaction

You may contact me through email, CANVAS, or stop by my office hours. 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.

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:
 - o [iPhone/iPad](https://apps.apple.com/app/safezone/id533054756): [<https://apps.apple.com/app/safezone/id533054756>]
 - o [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

For updates on COVID information, please monitor the University [website](https://www.tamuct.edu/covid19/)
[<https://www.tamuct.edu/covid19/>]

COURSE INFORMATION

Course Overview and description

(WI) Explore interactions at the organismal, population, and community level, and apply ecological theory to current environmental problems. Emphasis in the laboratory and field exercises is placed on the ecological methodology and the application of these methods. Students are required to use various statistical methods to analyze and interpret data. Lab fee: \$30. Prerequisite: BIOL 1407

Course Objective or Goal Student Learning Outcomes

Students will:

- a. receive a sound basis of current scientific theories and knowledge
- b. be able to apply this knowledge and test theories experimentally
- c. be familiar with the interactions between living organisms and their environment
- d. learn techniques for gathering data in the field and laboratory
- e. understand the scope of the problems that we (humans) are facing such as unsustainable use of ecological resources, erosion, pollution, extinctions, etc...
- f. be able to critically analyze new findings in research areas and why results are often contradictory
- g. be informed of open areas of research where current knowledge is lacking

Required Reading, Supplies, and Textbook(s)

- a. One pair of garden/work gloves that can be stored in your locker
- b. One disposable lab coat
- c. Molles, MC, Sher AA. 2022. Ecology: concepts & applications. McGraw Hill, New York, NY. ISBN:987-1264360710

[For WI Courses] This is a Writing Instructive (WI) course so writing will be an integral part of my instruction and our interactions. Writing will also be a fundamental way that I measure student mastery of course content. WI means that you will have several opportunities to work on improving your writing skills. During this course we will focus on writing several formal lab reports throughout the semester and will also write short response questions that effectively utilize new vocabulary and clearly communicate concepts learned from each chapter.

COURSE REQUIREMENTS

Course Requirements: (include point values for each- not just a percentage)

- 30% Two lecture exams (SLO: a, c, e, g)
- 20% Final Comprehensive Exam (SLO: a, c, e, g)
- 10% Assignments (SLO: e, f, g)
- 10% Quizzes (SLO: a, b, c, e)
- 25% Laboratory reports (SLO: b, d, f, g)
- 5% Participation

Mandatory 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!**

Grading Criteria Rubric and Conversion

Short Response Questions (points per question may vary)

25% Grade is based off of proper writing technique, grammar, spelling.

25% Grade is based off of proper use of ecology related vocabulary and concepts.

50% Grade is for a correct or reasonable response.

Lab Reports

Will be graded according to the rubric below.

Citations must be in the Council of Science Editors (CWE) format in the **name, year** style.

Quizzes

Points will be noted on Canvas; usually each multiple-choice question is worth 1pt.

Course Grades

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 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***

Posting of Grades

Grades will be posted on **CANVAS** as I am finished with my evaluation of your work.

Grading Policies

Grading Policy and Point Breakdown.

Grades in this course will be criteria-based on a number of activities including exams, short response questions, quizzes, and lab reports. 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 later than 72 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.

Will generally consist of short answer responses and chapter quizzes that provide the students the opportunity to demonstrate mastery of weekly topics and determine their ability to analyze specific research projects relevant to each chapter. All assignments are to be turned in, on time, to the CANVAS website unless otherwise specified. I will not accept emailed 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, true/false, and short answer questions designed to provoke reflection, critical thought, and application of knowledge. Weekly quizzes and short response questions will reflect the detail of knowledge you will need

to succeed on the exams. You are encouraged to prepare for the exam by reviewing quiz questions, reading materials, chapter review questions, chapter vocabulary, and discussing questions with your peers. You will then demonstrate your individual, integrated thoughts on the topic in a closed-book exam during the designated class period.

- *There will be no bathroom breaks allowed during any exam. Be sure that you address this issue before beginning an exam.*
- *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....*
- *Accommodated exams.* 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.
- *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, being respectful and courteous to your classmates, and notifying me of absences in advance.

What you can expect of me.

You can expect me to start and end class on time, be available via e-mail, 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.

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.

Campus Closure Back-Up Plan. In the event that campus closes this class will switch to a 100% online format with synchronous WebEx virtual lectures during normal class time. If needed exams will be administered via Proctorio. Students will complete labs independently.

COURSE OUTLINE AND CALENDAR

Complete Course Calendar

1. Week of August 22
 - a. Lecture Topic: Introduction and Life on Land
 - i. Chapters 1 and 2
 - b. Laboratory: Laboratory check in, Ecological Interactions Lab, monarch habitat work
2. Week of August 29
 - a. Lecture Topic: Life on Land
 - i. Chapter 2 & 3
 - b. Laboratory: IMMP Plot Set Up/Survey
3. Week of September 5-NO CLASS ON LABOR DAY (MONDAY)
 - a. Lecture Topic: Life in water & Population Genetics
 - i. Chapter 3 & 4
 - b. Laboratory: IMMP Plot/Landscapes & Habitats (Part 1)
4. Week of September 12
 - a. Lecture Topic: Temperature Relations & Water Relations
 - i. Chapter 5 & 6
 - b. Laboratory: Landscape and Habitats (Part 2)
5. Week of September 19
 - a. Lecture Topic: Energy and Nutrient Relations and Social Relations
 - i. Chapters 7 & 8
 - b. Laboratory: Landscapes & Habitat (Part 3)
6. Week of September 26
 - a. Lecture Topic: EXAM I (Monday) & Population Distribution
 - i. Chapters 9
 - b. Laboratory: Population growth/PP (Part 1) & Monarch Tagging
7. Week of October 3
 - a. Lecture Topic: Population dynamics & Growth
 - i. Chapters 10 and 11
 - b. Laboratory: Population growth/PP (Part 2) & Monarch Tagging & IMMP Data Collection
8. Week of October 10
 - a. Lecture Topic: Population Growth & Life Histories
 - i. Chapters 11 & 12
 - b. Laboratory: Population growth/PP (Part 3) & Monarch Tagging
9. Week of October 17
 - a. Lecture Topic: Competition & Exploitive Interactions
 - i. Chapters 13 and 14
 - b. Laboratory: Population growth/PP (Part 4) & Monarch Tagging
10. Week of October 24
 - a. Lecture Topic: Mutualism (Monday) & Review
 - i. Chapters 15 & 16

- b. Laboratory: Population growth/PP (Part 5) & Monarch Tagging
- 11. Week of October 31
 - a. Lecture Topic: Exam II (Monday) & Species abundance
 - i. Chapters 16
 - b. Laboratory: Monarch Tagging and IMMP Data Collection
- 12. Week of November 7
 - a. Lecture Topic: Primary and Secondary Production; Nutrient Recycling
 - i. Chapter 17 & 18
 - b. Laboratory: Monarch Tagging, Seed Collection, Habitat Restoration, Data Entry
- 13. Week of November 14
 - a. Lecture Topic: Nutrient recycling and Succession
 - i. Chapters 19 and 20
 - b. Laboratory: Landscape & Habitats (Part 5) and Topography (Part 1)
- 14. Week of November 21
 - a. Lecture Topic: Landscape and Geographic Ecology
 - i. Chapters 21 and 22
 - b. Laboratory: Topography (Part 2); Campus survey
- 15. Week of November 28
 - a. Lecture Topic: Global Ecology and Review
 - i. Chapters 22 & 23
 - b. Laboratory: Island Biogeography and Check out
- 16. Week of December 5
 - a. Comprehensive Final Exam (Wednesday-December 7th)

Important University Dates

http://catalog.tamuct.edu/undergraduate_catalog/general-information/academic20calendars20and20final20exam20schedule/

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

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>]

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 referral](#),

[https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=0].

Drop Policy

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

[<https://federation.ngwebsolutions.com/sp/startSSO.ping?PartnerIdpld=https://eis-prod.ec.tamuct.edu:443/samlSso&SpSessionAuthnAdapterId=tamuctDF&TargetResource=https%3a%2f%2fdynamicforms.ngwebsolutions.com%2fSubmit%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.

Important information for Pregnant and/or Parenting Students

Texas A&M University-Central Texas supports students who are pregnant, experiencing pregnancy-related conditions, 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>]. Students may also contact the institution's Title IX Coordinator. If you would like to read more about these [requirements and guidelines](#) 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>] 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 Library & Archives

The University Library & Archives 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>]

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. 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 [WCOonline](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.

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](#) online

[https://cm.maxient.com/reportingform.php?TAMUCentralTexas&layout_id=2].

Anonymous referrals are accepted. Please see the [Behavioral Intervention Team](#) 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.

OTHER POLICIES

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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