

BIOL 4301, CRN 10457, CONSERVATION BIOLOGY

Spring 2023

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.
January 17, 2023-May 12, 2023

Time/Day: Lecture: T/TH 1:00pm– 2:15pm

Where: Lecture: 306 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: WH 306 or HH Adjunct Office

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

Office Hours

Tuesday and Thursday 12:00pm-1:00pm & 2:15pm-3:00pm

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:
 - [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

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:

Examine conservation of biological diversity at gene, population, species, ecosystem, and global levels. Provides an overview of conservation biology including the causes and consequences of biodiversity loss, conservation approaches and strategies, and the ecological and evolutionary theory underlying these approaches. Prerequisite(s): BIOL 3401.

Course Objective or Goal

Student Learning Outcomes

- a. understand ecological and evolutionary principles that underlie biological diversity
- b. demonstrate how ecological and evolutionary principles are applied to solving conservation problems
- c. apply critical reasoning skills to assessment, analysis, and synthesis of conservation problems and solutions
- d. explain proximate and ultimate threats to biodiversity and consequences of biodiversity loss
- e. actively participate in conservation related projects through monitoring monarchs, participating in citizen science, and improving monarch habitat on campus

Required Reading and Textbook

Cardinale, BJ, Primack, RB, Murdoch, JD. 2020. Conservation Biology. Oxford University Press, NY, NY. ISBN: 978-1-6053-5714-0

COURSE REQUIREMENTS

Course Requirements:

- 30% Three lecture exams (SLO: a, b, c, d)
- 20% Monarch related field work (SLO: e)
- 15% Reading check quizzes and discussion participation grades (SLO: a, b, c, d)
- 20% Mini presentation and textbook exercise assignments (SLO a, b, c, d)
- 15% Final Comprehensive Exam (SLO: a, b, c, d)

Grading Criteria Rubric and Conversion

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.

Reading check quizzes and discussion participation grades (Approximately 1 per week; 10 points each)

You will be expected to come to class **ALREADY** having read the assigned book chapter. A short 5-point quiz will be administered to determine if you have read the materials, an additional 5 points may be earned for participation in the end of chapter discussion questions. Each student **MUST** contribute to the discussion in a meaningful way a minimum of two times and maintain a professional demeanor during the discussion (for example, no sleeping, respectful and thoughtful comments only) to earn all 5 points. There will be no make-ups for these quizzes/discussion grades. Failure to attend class that day will result in a zero grade.

Monarch Related Campus Work Grade (20 points allotted each session for participation)

Think global, act local, we will work as a class to improve our existing monarch gardens and monitor the presence/absence of monarch as they pass through central Texas this spring. This will be accomplished through Integrated Monarch Monitoring Project (IMMP) surveys and Monarch Watch citizen science data collection. This work is in lieu of a large paper or presentation so be prepared to contribute a significant amount of time (est. 15-20 hours) to accomplish the following. If you miss a session you will not receive credit for that date.

- Monarch Watch Calendar Project
- IMMP Adult Monarch Survey
- IMMP Monarch Egg and Larva Survey
- IMMP Milkweed and Blooming Plant Surveys
- Weeding Balcony Gardens
- Weeding and Replanting Martha's Monarch Garden

Mini class presentations (20 points each)

Various topics will be assigned during the semester to supplement our textbook and delve deeper into certain topics. Presentations will be 1-2 slides and should take no longer than 10 minutes to share with your classmates.

Presentation Rubric

Presentation Rubric				
Criteria	Ratings			Pts
CONTENT Presentation meets the information requirements of the assignment	10 pts Full Marks	6 pts Partial Credit	0 pts No Marks	10 pts

Presentation Rubric				
Criteria	Ratings			Pts
DESIGN Slides free from spelling and grammatical errors. Text is clear and easy for the audience to see. Fonts, colors, pictures, are effective and consistent with the topic and audience.	5 pts	3 pts	0 pts	5 pts
	Full Marks	Partial Credit	No Marks	
PRESENTATION Presenter is familiar with the material and vocabulary. Presenter speaks clearly and shows enthusiasm for the subject matter. Presenter is prepared on due date.	5 pts	3 pts	0 pts	5 pts
	Full Marks	Partial Credit	No Marks	
Total Points: 20				

Grade 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 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 soon 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 quizzes, restoration projects, presentations, and participation in discussions. 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.

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 it has been graded and returned.

Exam rules.

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

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 three-credit class that meets for three hours a week should expect to spend an additional six 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.

COURSE OUTLINE AND CALENDAR

Complete Course Calendar*

1. Week of January 17
 - a. Lecture Topic-Introduction and State of Our Planet
 - i. Chapter 1 & 2
2. Week of January 24
 - a. Lecture Topic-Rise of Conservation Biology and Biodiversity Concepts
 - i. Chapter 2 & 3
3. Week of January 31
 - a. Lecture Topic-Biodiversity: Concepts and Measurement
 - i. Chapter 3 & 4
4. Week of February 7
 - a. Lecture Topic-Global Patterns and Drivers of Biodiversity
 - i. Chapter 4
 - ii. Fort Hood Guest Speakers (Chelsea & Charlie Plimpton)
5. Week of February 14
 - a. Lecture Topic-Many Values of Biodiversity and Ecosystem Services
 - i. EXAM I (CH 1-4)
 - ii. Chapter 5
6. Week of February 21
 - a. Lecture Topic-Ecosystem Services and Ecological Economics
 - i. Chapter 6 & 7
7. Week of February 28

- a. Lecture Topic-Ecological Economics
 - i. Chapter 7
 - ii. EXAM II (CH 5-7)
- 8. Week of March 7
 - a. Lecture Topic-Extinction and Habitat Loss
 - i. Chapter 8 & 9
- 9. Week of March 14-SPRING BREAK-NO CLASS
 - a. *Monarch Calendar Watch Program Begins (March 15-June 20)*
- 10. Week of March 21
 - a. Lecture Topic-Habitat Degradation and Overexploitation
 - i. Chapter 9 & 10
- 11. Week of March 28
 - a. Lecture Topic-Invasive Species
 - i. Chapter 11 & 12
- 12. Week of April 4
 - a. Lecture Topic-Climate Change
 - i. Chapter 12
 - ii. EXAM III (CH 8-12)
- 13. Week of April 11
 - a. Lecture Topic-Species Level Conservation
 - i. Chapter 13
- 14. Week of April 18
 - a. Lecture Topic-Community and Ecosystem Conservation
 - i. Chapter 14
 - ii. **Guest Speaker, Charlotte Reemts, Nature Conservancy**
- 15. Week of April 25
 - a. Lecture Topic-Landscape-Scale Conservation and Ex Situ Conservation
 - i. Chapter 15 & 16
- 16. Week of May 2
 - a. Lecture Topic-Conservation and Sustainable Development
 - i. Chapter 17
- 17. Week of May 9
 - a. Final Comprehensive Exam (Tuesday 1:00pm-2:15pm)

***Class schedule is subject to change as needed.** If we are required to switch to a virtual format due to university COVID-19 guidelines we will continue to use CANVAS and have synchronous lecture meetings via WebEx or Microsoft Teams. If campus is closed we will take EXAMS using Proctorio.

Important University Dates

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

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](#) 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), [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?PartnerIdId=https://eis-prod.ec.tamuct.edu:443/samlssso&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) [<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 Library & Archives

The University Library & Archives provides many services in support of research across campus and at a distance. We offer over 350 electronic databases containing approximately 631,525 eBooks and 75,149 journals, in addition to the 97,443 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) [https://tamuct.libcal.com/appointments]. 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/index) [https://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.

OTHER 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.

Copyright Notice

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