#### BIOL 3318-110, CRN 80055, Animal Physiology

#### Fall 2023

Texas A&M University-Central Texas

#### **COURSE DATES, MODALITY, AND LOCATION**

This will be a 16-week course and meets face-to-face Monday & Wednesday from 4-5:15 pm in the classroom Warrior Hall 317 from August 28, 2023- December 14, 2023, 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:** Dr. Onadia Cabrera-Mora **Office:** Beck Family Heritage Hall

Phone:

Email: o.cabrera@tamuct.edu

#### **Office Hours**

Office hours by appt. only, students should make appointment requests by email.

#### Student-instructor interaction

This course will meet face-to-face in the classroom every Monday and Wednesday. Any on-campus interactions will comply with the current safety guidelines to ensure the reduction of COVID-19 transmission. I will check my CANVAS at least once a day from Sun-Friday. This is the best way to reach me. Face-to-face appointments will be available during my office hours and can be arranged via Canvas in-box correspondence or phone.

### **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 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:
  - <u>iPhone/iPad</u>: [https://apps.apple.com/app/safezone/id533054756]
  - Android Phone / Tablet
     [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/]

# **COURSE INFORMATION**

# **Course Overview and Description**

This course explores mammalian physiology as well as other selected vertebrate taxa. Special emphasis on organ-system physiology and cellular and molecular mechanism in order to present the current view of physiological principles. Highlights the nervous, muscular, cardiovascular, respiratory, renal, digestive, and endocrine physiology. Prerequisite(s): BIOL 1407

# **Course Objective or Goal Student Learning Outcomes**

Students will:

- **a.** develop a working knowledge of the major physiological systems and be able to associate anatomical areas with their specific function.
- **b.** develop an understanding of the role of evolutionary processes (e.g. natural selection) in driving the organization of physiological systems.
- **c.** understand important physiological challenges animals face, how those challenges vary in relation to the animal's environment, and the processes by which animals deal with these challenges.
- **d.** identify and describe structural differences of major physiological systems that characterize different taxonomic groups of animals.
- **e.** relate physiological processes, from biochemical to the system level, to the function of the entire organism in its environment.

### Competency Goals Statements (certification or standards) N/A

#### Required Reading and Textbook(s)

1. Sherwood, L., Klandorf, H., and Yancey, P. 2013. Animal Physiology: From genes to organisms, 2nd ed. Brooks/Cole, Cengage Learning, Belmont, CA. ISBN: 9780840068651

#### **COURSE REQUIREMENTS**

#### Course Assessments:

- 40% Three lecture exams
- 25% Final Comprehensive Exam
- 25% Assignments
- 10% Participation

## **Grading Criteria Rubric and Conversion**

Grading scheme

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 full 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, the "I" will automatically change to an F. You must have been doing passing work in the course to obtain an incomplete.

#### **Posting of Grades**

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

### **Grading 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 several activities, including exams, discussions, and projects. This means that grades will not be curved, and anyone achieving 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.** Weekly homework assignments (CANVAS quizzes) are 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 must be turned in on time to the CANVAS website. I will distribute instructions on how to do this. I will not accept e-mail 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 and your ability to learn and process new material. 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.** Exams will be administered in the classroom according to the syllabus. The exams will be a mixture of matching, multiple choice, and short answers, designed to provoke reflection, critical thought, and application of knowledge. You will receive a list of several samples or real exam questions ahead of time. You are encouraged to prepare for the exam by reviewing reading materials, outlining a response draft, 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.
- Any student needing to take an exam at a different time than the rest of the students due to sickness or other accommodation will receive a different version of the exam. This includes sickness, special accommodations, etc...
- 3. All students needing unique accommodation must submit an accommodation form from the Office of Access and Inclusion listing the specific accommodation needed. Students are responsible for scheduling their exam times with the TAMUCT Testing Center.
- 4. Any student missing an exam in class for any other reason (i.e., illness, death in the 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 the originally scheduled date, with no exceptions.
- 5. All backpacks and materials as well as cell phones, smartwatches, and all 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 the teacher.

#### **COURSE OUTLINE AND CALENDAR**

## **Complete Course Calendar**

- 1. Week of August 28
- a. Lecture Topic: Homeostasis and Integration/Cellular and Molecular Physiology
- i. Chapters 1 and 2
  - 2. Week of September 4
- a. Lecture Topic: Cellular and Molecular Physiology/Membrane Physiology
- i. Chapters 2 and 3
- 3. Week of September 11
- a. Lecture Topic: Membrane Physiology/Neuronal Physiology
- i. Chapters 3 and 4
- 4. Week of September 18
- a. Lecture Topic: Neuronal Physiology /Nervous systems
- i. Chapters 4 and 5
  - 5. Week of September 25
- a. Lecture Topic: Nervous systems (Monday) and Exam I Ch. 1-4 (Wednesday)
- i. Chapters 5
- 6. Week of October 2
- a. Lecture Topic: Sensory Physiology
- i. Chapter 6
  - 7. Week of October 9
  - a. Lecture Topic: Endocrine Physiology
- i. Chapter 7
- 8. Week of October 16
- a. Lecture Topic: Muscle Physiology
- i. Chapter 8
- 9. Week of October 23
- a. Lecture Topic: Circulatory Systems (Monday) and Exam II Ch 5-8 (Wednesday)
- i. Chapter 9
  - 10. Week of October 30
  - a. Lecture Topic: Circulatory Systems/Defense Systems

- i. Chapters 9 and 10
- 11. Week of November 6
- a. Lecture Topic: No lecture this week
- 12. Week of November 13
- a. Lecture Topic: Respiratory Systems/Excretory Systems
- i. Chapters 11 and 12
  - 13. Week of November 20
  - a. Lecture Topic: Excretory Systems/Fluid & pH Balance
- i. Chapters 12 and 13
  - 14. Week of November 27
  - a. Lecture Topic: Exam III Ch 9-12 and no lecture Thursday (Thanksgiving)
- i. Chapter 14
- 15. Week of December 4
- a. Lecture Topic: Digestive and Reproductive Systems
- b. Chapters 14 and 16
- 16. Week of December 11
- a. Comprehensive Final Exam (Wednesday)

#### **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 Chrome, Firefox, Edge, or Safari browsers versions. Canvas will run on Windows, Mac, Linus, iOS, android, or any other device with a modern web browser. Canvas no longer supports any version of Internet Explorer.

Login to A&M-Central Texas Canvas [https://tamuct.instructure.com/] or access Canvas through the TAMUCT Online link in myCT [https://tamuct.onecampus.com/] by clicking on the "TAMUCT Online Canvas" tile. You will then log in through our Microsoft portal.

Username: Your MyCT email address. Password: Your MyCT password

## **Canvas Support**

Use the Canvas Help tab, located at the bottom of the left-hand menu, for issues with Canvas. You can search the support articles or use the Email, Call, or Chat buttons at the bottom of the support pop-up to contact the Canvas Help Desk.

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

#### **Online Proctored Testing**

Texas A&M University-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 requires use of the Chrome web browser with their custom plug in installed.

# **Other Technology Support**

For log-in problems, students should contact Help Desk Central, 24 hours a day, 7 days a week.

Email: <a href="mailto:helpdesk@tamu.edu">helpdesk@tamu.edu</a> Phone: (254) 519-5466

Web Chat: [http://hdc.tamu.edu]

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

# UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

#### **Warrior Center for Student Success**

The Warrior Center for Student Success is a comprehensive academic support department at A&M-Central Texas, dedicated to fostering an environment of excellence and empowerment among its student body. The center offers a wide range of programs and services to ensure every student reaches their full potential, and is a haven for students seeking guidance, resources, and a strong support network to excel in their educational journey.

ADA Access and Accommodations: Texas A&M University-Central Texas ensures that students with disabilities have equal access to educational opportunities by providing appropriate accommodations and support services. If you believe you have a physical, learning or socioemotional disability requiring reasonable accommodations, please visit Access and Inclusion [https://www.tamuct.edu/student-affairs/access-inclusion.html] for more details or contact the Office of Access and Inclusion, WH-212; (254) 501-5836. Any information you provide is private and confidential.

**Success Coaching and Peer Mentoring:** Our experienced Success Coaches work one-on-one with students to develop personalized action plans, set academic goals, and build effective study strategies, time management skills, and resilience. Our Peer Mentors provide a valuable support system, offering guidance, encouragement, and a relatable perspective to help

students navigate their academic and personal challenges. For more details call 254-501-5836 or 254-501-5928 or visit <u>Academic Support</u> [https://www.tamuct.edu/student-affairs/academic-support.html]. Click the link to schedule a session (virtual or in-person) with a success coach <u>bit.ly/3g7uB50</u> or visit WH, 111.

**Testing Services:** We offer a secure and comfortable environment for students and members of the community to take courses and distance learning exams, as well as placement tests and professional certification exams. Our Testing Service also offers resources and support referrals for testing related challenges (test anxiety, learning disabilities, etc.) and supports all approved ADA accommodations. Call (254) 519-5830 or visit the <a href="Testing">Testing</a><a href="Testing">Center</a> [https://www.tamuct.edu/testing-center/].

**Tutoring and Supplemental Instruction Services:** Our team of qualified Tutors and Supplemental Instructors assist students in various non-writing subjects, promoting academic comprehension and enhancing learning outcomes. Click the link to schedule a tutoring session with a TAMUCT tutor (virtual or in-person) or view tutor availability <a href="bit.ly/43Q6wNz">bit.ly/43Q6wNz</a>. You may also chat live with a remote tutor 24/7 for a variety of subjects through our partnership with Tutor.com, an online tutoring platform that is free to all TAMUCT students. To learn more please visit <a href="Tutoring Services">Tutoring Services</a> [https://www.tamuct.edu/student-affairs/academic-support.html#tutoring] or call (254) 501-5836 or visit the Tutoring Hub in Warrior Hall, 111.

# **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 Student Conduct Office. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

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

If you know of potential honor violations by other students, you may <u>submit a referral</u>, [https://cm.maxient.com/reporting.php?TAMUCentralTexas].

# **Drop Policy**

If you discover that you need to drop this class, you must complete the <u>Drop Request</u> Dynamic Form through Warrior Web.

[https://federation.ngwebsolutions.com/sp/startSSO.ping?PartnerIdpId=https://eisprod.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 Records and Admissions Office will provide a deadline on the Academic Calendar for which the form must be completed. Once you submit the completed form to the Records and Admissions 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 Records and Admissions 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.

# Pregnant and/or Parenting Students Rights and Accommodations

Texas A&M University-Central Texas supports students who are pregnant, experiencing pregnancy-related conditions, and/or parenting. In accordance with requirements of <a href="Title IX">Title IX</a> and related guidance from US Department of Education's Office of Civil Rights, the Associate Dean in the Division of Student Affairs, (254) 501-5909, can assist students who are pregnant, experiencing pregnancy-related conditions, and/or parenting by provide flexible and individualized reasonable accommodations. Students should seek out assistance as early in the pregnancy as possible through the <a href="Pregnancy & Parenting webpage">Pregnancy & Parenting webpage</a> [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. For more information, please visit <a href="Student Affairs">Student Affairs</a> [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. If you would like to read more about these requirements and

[http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

<u>Title IX of the Education Amendments Act of 1972</u> specifically prohibits discrimination against a student based on pregnancy, childbirth, false pregnancy, termination of pregnancy, or recovery from any of these conditions

[https://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.html].

Students experiencing any form of discrimination due to any of these conditions are encouraged to reach out to the Title IX Coordinator, 254.519.5716, <a href="mailto:titleix@tamuct.edu">titleix@tamuct.edu</a>, Founders Hall 317B, or the Associate Dean of Student Affairs, 254.501.5909, Warrior Hall 105.

#### **Title IX Rights and Reporting Responsibilities**

guidelines online, please visit the website

Texas A&M University-Central Texas is committed to creating a safe and open learning environment for all students. If you or another student has experienced any form of gender discrimination or sexual misconduct, including sexual harassment, sexual assault, dating/domestic violence, and/or sex-based stalking, help and support are available. Our university strongly encourages all members of our campus community to report incidents and seek support for gender discrimination and sexual misconduct through the Title IX Office. You may contact the Title IX Office at 254.519.5716, <a href="mailto:titleix@tamuct.edu">titleix@tamuct.edu</a>, Founders Hall 317B, or learn more by visiting the Title IX webpage [https://www.tamuct.edu/compliance/titleix.html].

Please be aware that that under <u>Title IX</u>, <u>Texas Senate Bill 212</u>, and <u>System Regulation 08.01.01</u>, [https://policies.tamus.edu/08-01-01.pdf] all university employees are mandated reporters and are required to disclose information about suspected or alleged violations as listed above and

defined in System Regulation 08.01.01. If the Title IX Office receives information about an incident, they will reach out to offer information about resources, rights, and procedural options as a member of the campus community. Although I have an obligation to report, you will, in most cases, control how your case will be handled. When working with the Title IX Office you will have access to resources and accommodations but also have the opportunity to express if you wish to move forward with an investigation. Our goal is to make sure you are aware of the options available to you as a student. Community members are not required to respond to this outreach.

If you or another student wishes to speak to a confidential employee who does not have this reporting responsibility, you can contact the <a href="Student Wellness & Counseling Center">Student</a> (https://www.tamuct.edu/student-affairs/student-counseling.html], 254.501.5955, or <a href="swacc@tamuct.edu">swacc@tamuct.edu</a>, located in Warrior Hall Room 207L or the Student Support Advocate, 254.501.5978 or <a href="ssa@tamuct.edu">ssa@tamuct.edu</a>, located in founder Hall Room 317D.

### **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 1,203,947 eBooks and 134,750 journals, in addition to the 96,879 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]. 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 workspaces, 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 <u>Library website</u>

[https://tamuct.libguides.com/index]

#### **University Writing Center**

Located in Warrior Hall 416 and online, 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 face-to-face hours of operation are from 10:00 a.m.-5:00 p.m. Monday and

Thursday in Warrior Hall 416. Online tutoring is available Monday thru Thursday from 10:00 a.m.-5:00 p.m. and from 6:00-9:00 p.m. and on Saturdays from 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 <a href="WCOnline">WCOnline</a> [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at <a href="bruce.bowles@tamuct.edu">bruce.bowles@tamuct.edu</a> 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 <a href="Ittle-IX webpage"><u>Title-IX webpage</u></a> [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 <u>referral</u> online

[https://cm.maxient.com/reporting.php?TAMUCentralTexas].

Anonymous referrals are accepted. Please see the <u>Behavioral Intervention Team</u> 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**

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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