

BIOL 3315-120-Advanced Physiology

Spring 2022

Texas A&M University-Central Texas

COURSE DATES, MODALITY, AND LOCATION

This course meets face-to-face Mondays and Wednesdays 2:30-3:30 pm in Warrior Hall, room 313, 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: Crystal Bolden-Rush, Ph.D.

Office: Heritage Hall 302S

Phone: (336) 830-4587

Email: Canvas Inbox

Office Hours: TR 2:30- 4pm

Student-instructor interaction

I will check my Canvas email at least twice a day Su-F. This is the best way to reach me. Face-to-face appointments outside of office hours can be arranged via Canvas Inbox 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](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

COURSE INFORMATION

Course Overview and description

Study human physiology at the biochemical, cellular, tissue, and organ level. Designed for upper division science and nursing majors. Prerequisite(s): BIOL 1406.

Course Objective or Goal

To understand the physiological processes of the human body, how these processes are integrated and how, when, and why these processes malfunction, causing disease or disorder in the human body.

Student Learning Outcomes

Students will:

- a. Use quantitative information to evaluate and understand physiological processes.
- b. Describe the interactive functions of key homeostatic mechanisms.
- c. Describe cellular activity using chemical and physical principles.
- d. Relate cellular activity to the functioning of specific body tissues and organs.
- e. Distinguish between normal physiological changes and common pathological changes in the body.

Required Reading and Textbook(s)

Watson, C. 2015. Human Physiology. Jones and Bartlett Learning, Burlington, MA. ISBN:

9781284035179

COURSE REQUIREMENTS

Course Requirements:

Lecture Exams	25%
Final Comprehensive Exam	25%
Assignments	20%
Participation/Discussion	15%
Quizzes	15%

- Chapter Preview Homework Assignments are designed to target SLOs b, c, and d. Chapter Case Study Discussions are designed to target SLOs a and e. All assessments, quizzes and exams, are designed to target SLOs a-e.
- Please see Rubrics at the end of this document.

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 course requirements in every respect.

D 1.00 (60-69%) achievement that is worthy of credit even though it fails to fully meet the 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" is to remain on the transcripts 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.

Posting of Grades

I will grade tests and post the grades to Canvas on Sundays.

COURSE OUTLINE AND CALENDAR

Complete Course Calendar

18-21 Jan	Course Introduction Chapter 1 Cellular Physiology
24-28 Jan	Chapter 1 Preview HW due (M) Chapter 1 Cellular Physiology (MW) Chapter 1 Case Study Canvas Discussion (W-F)
31 Jan-4 Feb	Chapter 2 Preview HW due (M) Chapter 1 Case Study Discussion (M) Chapter 2 Autonomic Nervous System (MW) Chapters 1 & 2 Review Quiz (Su)
7-11 Feb	Chapter 3 Preview HW due (M) Chapter 3 Endocrine Physiology (MW) Chapter 3 Case Study Canvas Discussion (W-F)

14-18 Feb	Chapter 4 Preview HW due (M) Chapter 3 Case Study Discussion (M) Chapter 4 Immune System Physiology (MW) Chapters 3 & 4 Review Quiz (Su)
21-25 Feb	Chapter 5 Preview HW due (M) Chapter 5 Somatic Nervous System and Special Senses (MW) Chapter 5 Case Study Canvas Discussion (W-F)
28 Feb-4 Mar	Chapter 5 Case Study Discussion (M) Case Study Review Discussion (M) Exam 1 (Chapters 1-5) (W)
7-11 Mar	Chapter 6 Preview HW due (M) Chapter 6 The Digestive System (MW) Chapters 5 & 6 Review Quiz (Su)
14-18 Mar	Spring Break
21-25 Mar	Chapter 7 Preview HW due (M) Chapter 7 Cardiovascular Physiology (MW) Chapters 7 Case Study Canvas Discussion (W-F)
28 Mar-1 Apr	Chapter 8 Preview HW due (M) Chapter 7 Case Study Discussion (M) Chapter 8 Respiratory Physiology (MW) Chapters 7 & 8 Review Quiz (Su)
4-8 Apr	Chapter 9 Preview HW due (M) Chapter 9 Renal Physiology and Acid-Base Balance (MW) Chapter 9 Case Study Canvas Discussion (W-F)
11-15 Apr	Chapter 10 Preview HW due (M) Chapter 9 Case Study Discussion (M) Chapter 10 Exercise Physiology (MW) Chapters 9 & 10 Review Quiz (Su)
18-22 Apr	Case Study Review Discussion Exam 2 (Chapters 6-10)

25-29 Apr	Chapter 11 Preview HW due (M) Chapter 11 Reproduction and Fetal Development (MW) Chapter 11 Case Study Canvas Discussion (W-F)
2-6 May	Chapter 11 Case Study Discussion
9-13 May	Comprehensive Final Exam (Chapters 1-11)

Important University Dates

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

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.

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

You will also need the ability to take pictures (camera on phone, Adobe Scan, etc.) as some assignments require personal illustrations.

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.

OTHER POLICIES

Grade Dispute Policy

Grading disputes must be presented in writing no later than 24 hours the assignment has been returned. Dispute must be supported by a credible source. Although I will consider your request, I reserve the right to adjust your grade or reject your request.

Assignments

Assignments are designed to help you build a study guide for exams while satisfying the SLOs and module objectives. I will not give additional study materials. I will not accept assignments by email. Please see **Rubrics** for additional information.

Late Assignments

I expect that all assignments will be turned in on time. Late assignments impede my ability to provide timely feedback. Furthermore, extra time taken to complete any assignment may be viewed as an unfair advantage. Therefore, the highest grade allowed for a late assignment is an 80 B. Deductions for incorrect or partial responses will be taken from 80 pts. I reserve the right to decline late work if I observe that being late is habitual. I will not accept late work after the assignment has been returned.

Assessments: Exams and Quizzes

I will not provide additional study material for exams or quizzes. You are expected to treat quizzes like study guides. For quizzes you will receive randomly selected questions from a question bank. You are allowed 3 attempts and your grade is the average of all attempts. You are allowed to save questions and answers as a part of your study material. Exams, on the other hand, are closed-book, in-class, written assessments of your mastery of the SLOs. Please see **Rubrics** for additional information.

Missed Exam

If you have a valid reason for missing an exam, please notify me PRIOR to the exam. Missed

exam MUST be made up within 7 days of the scheduled test date. Documentation is required before the makeup exam is administered.

What I expect of you

I expect professional, eager learners who are prepared for discussions. There is no substitution for being present during our allotted class time. PowerPoints are from the text, but I may expound where I see fit. There will always be a point to my expounding and that point may be on an exam. In the occasion that an unavoidable situation or conflict of time, you are expected to be proactive in acquiring the content that you missed. I will work with a motivated and proactive student.

What you can expect from me

I will start and end class on-time, be accessible by Canvas Inbox, phone, or walk-ins during office hours. I will be responsive to feedback and constructive feedback for course improvement. I will abide by everything outlined in this syllabus.

Grading Policy

- I. Rubrics
 - a. Chapter Preview Assignments
 - i. Satisfies SLOs b, c, and d
 - ii. These assignments are designed to be your first exposure to new vocabulary and the foundation for your self-cultivated exam study-guides.
 - iii. Each assignment will be worth 100 points total.
 - iv. The following tasks will be assigned to various vocabulary terms.
 1. Define(D)
 2. Diagram and Label (DL)
 3. Compare and Contrast (CC)
 4. Give an example (Ex)
 - v. Example: Depolarization (D)
 - vi. The point value of each term depends on the number of total terms. The points(pts) for each term are divided by the number of tasks assigned to the that term. For example:
 1. 20 vocabulary terms = 5 pts each
 2. Ligand-gated ion channels (D) (Ex) =2.5 pts for (D), 2.5 pts for (Ex)
 - vii. Blanks and incorrect answers will be assessed for 0 pts.
 - b. Quizzes
 - i. Satisfies SLOs a-e
 - ii. Are designed to provide immediate feedback on your grasp of the material.
 - iii. Covers 2 chapters at a time, worth 50 pts
 1. Multiple choice = 2 pts/each
 2. Fill-In the Blanks = 2 pts/each
 3. Matching = 2 pts/each
 4. True/False = 2 pts/each

- c. Exams
 - i. Satisfies SLOs a-e
 - ii. Covers 5 chapters, worth 100 points
 - 1. Multiple choice = 3 pts/each
 - 2. Fill-In the Blanks = 3 pts/each
 - 3. Matching = 2 pts/each
 - 4. True/False = 2 pts/each
 - 5. Short answer= 5pts/each, Partial credit may be assessed.
- d. Chapter-Based Case Study Discussion
 - i. Satisfies SLOs a and e
 - ii. This is a participation grade.
 - iii. Will be graded complete or incomplete.
 - iv. To earn a complete, student must respond to the original case study post and reply to at least one of their peers' posts. Failing to do both will result in an incomplete.
 - v. We will discuss these cases in class. There is no grade assessed for class participation; however, it is vital to the proper integration of these concepts.

Copyright Notice

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