

**Class Information:**

BIOL 4388 will be asynchronous for the duration of the semester. In other words, we do not have official class days and times; however, you will need to interact with your group members regularly and your instructors will hold live office hours during the week.

**Instructor Information:**

Instructor: **Dr. Tom McCabe** (he/him)

Email: [tmmccabe@utep.edu](mailto:tmmccabe@utep.edu)

\*Email is the best way to contact me. Please allow 48 hours for me to respond, then send a *polite* reminder. Always use your **UTEP email**. I am not legally allowed to discuss grades through non-UTEP accounts so always make sure to send and receive through that email.\*

Office Hours: TBA

**Course Description:**

This course is focused on understanding the homeostatic mechanisms that govern mammalian biology. Students in this course will be introduced to a range of physiological concepts that help biologists understand the ways the diverse group of vertebrates we call mammals function. This course will be a synthesis of many other biological concepts that you have learned throughout your degree program helping you to understand the connected interactions of molecules, cell populations, organisms, and all the way up to the global ecosystem. This course is also an opportunity for you to continue honing your skills as biologist as you will develop a research project throughout the semester that explores current research in physiology. The project will allow you to explore physiology from a more personal perspective by researching a topic that speaks to you and your group's interests in this field (e.g. human medicine, ecology, a specific organ system, etc.).

**Overall Course Goals:**

**By the end of the course, students should be able to:**

- a) describe and summarize information about the underlying principles that govern and unify physiological processes, especially homeostasis.
- b) apply their understanding of molecular biology to physiological function and increasing levels of biological scale and order.
- c) assess pathophysiological situations, predict outcomes to changes in physiological systems, and propose adjustments that will help to correct the pathophysiological issue.
- d) evaluate physiological data (both qualitative and quantitative) to develop an experimental/research proposal that addresses a current issue in physiological research.

**Required Textbook:**

**"Animal Physiology 4<sup>th</sup> Edition"** Hill, Wyse, and Anderson

Sinauer Associates, Inc. Publisher

<https://animalphys4e.sinauer.com/>

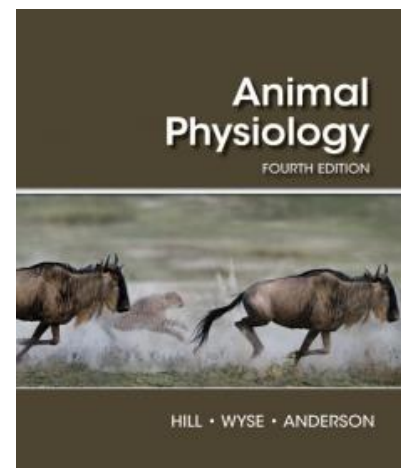
ISBN-13: 978-1605355948

ISBN-10: 1605355941

Purchase any format of the text (physical or digital).

We will not be using any type online homework or quiz system from the publisher. You only need access to the text.

The cheapest access is \$31-\$60 for a digital rental.



### **Grading Scale:**

90 – 100 = A

80 – 89.9 = B

70 – 79.9 = C **Note:** Students need to obtain a grade of C or better to pass this class.

60 – 69.9 = D

Below 60 = F

The final day to withdraw from this class is **April 1<sup>st</sup>**. No requests for a withdrawal will be approved after that date. Students can always petition the Registrar for a complete withdrawal from the course pending documentation.

### **Course Evaluation:**

Weekly Reading Quizzes 25%

Group Project 30%

Tests 50%

**Weekly Reading Quizzes:** Each week you will have an assigned section of reading. Please note that we will read *most* but not all of the text as non-mammalian physiology is not a focus of the course. A short quiz will appear on Blackboard at the beginning of the week (Monday at the latest) and be due by the following **Friday**. You will have 3 chances to take the quiz and your highest score will be recorded. I do not mind if you work with your group members or other acquaintances in the course for these. **HOWEVER**, these quiz questions are designed in the same way that I will write exam questions—do not compromise your own personal preparation for the course by letting someone else do all the work. Please note that these questions will cover the reading material only and there may be instances where a topic is not covered in the lecture. You are responsible for all information found on these quizzes, in the required reading sections, and from the posted lectures. There will not be a reading quiz for a week where there is a test.

**Group Work:** You will work with a group of students that I will select to develop a project throughout the semester. Groups will be an average of 6 people. I recommend that you and your group set up a regular time to meet to discuss your project and also lean on each other as a community of learners for the course. Feel free to use whatever form of communication works best for you and your group members; for example, email, text, Zoom, Group Me, Google, Microsoft Teams. I will create a group space that you are able to use on Blackboard, but I leave it up to you all to work out what works best for you.

The group project will require you and your group members to research a physiology topic that is of interest to you all and develop a greater understanding of the current research, common techniques, and future directions in this topic area. I cannot possibly provide you with enough depth in any given topic area so this allows you to take your knowledge further while continuing to practice skills important to being biologists.

### **The project will be broken into four graded pieces:**

1) An annotated bibliography including primary and secondary literature and an explanation of your groups' interest(s) and what you can find on the topic upon quick inspection.

2) A more official problem statement about your official topic of interest. This is effectively a mini-review explaining what we know about the topic; for example, if you are studying the physiological consequences of a particular disease, then you would report on the demography, etiology, current treatments, etc.

3) A short presentation explaining what is next in this research area including an introduction to the topic, a rationale, research questions, and preliminary experimental design. This phase will also include peer feedback on the materials that you have to this point.

4) A final presentation of the work presented in the third section. Your goal is to imagine where research in this topic area goes from here. What are the next logical steps in this area and what experiment would you propose? This will require a developed research plan along with a polished justification.

**Tests:** The majority of the course points will come from tests including an optional final. This is not a course where you will only have a midterm and a final. The material is broken up in to chunks that correspond to the major sections of the text for the course. Multiple tests help take the pressure off of you to cram information and give me an opportunity as an instructor to keep up with your progress as we move through the semester.

There is too much information to say about tests to keep writing a paragraph, so please consider the following points about how tests will function in BIOL 4388:

-There will be four tests during the semester and an optional final.

-Your points for this point category will be calculated from your 4 highest test scores for the semester. In other words, I will drop your lowest test score.

-All tests will have multiple choice, true or false, definition, and essay questions.

-While all tests will include all of the different question types, I will not grade all of those questions for all of your tests. For the first four tests, I will randomly select two that will be graded in total. For the other two, you will receive points for the multiple choice questions only. For example, you might be selected for tests 3 & 4 meaning that I will grade the multiple choice for all tests and additionally grade the free response answers for tests 3 & 4. You will not know which tests will be graded in full, so you should prepare fully and make your best attempt for each exam.

-If you choose to take the final, all questions will be graded.

-The final is cumulative and will cover topics from throughout the course.

### **Deadlines, Late Work, and Absence Policy:**

Reading Quizzes: Reading quiz submissions will be due on Fridays at midnight (11:59 PM). No late work will be accepted if the reason is not considered excusable.

Group Project: All required portions of the group project will be due on Sundays at midnight (11:59 PM). No late work will be accepted if the reason is not considered excusable.

Tests: All students will be able to access the tests for 48hrs usually during the latter half of the business week (i.e. Thursday/Friday). Students will have one opportunity to take the exam and a time limit to submit answers. If you run into issues with internet connection, you must contact Dr. McCabe as soon as possible. The test prompt will have more information on how to contact Dr. McCabe in the case of such an emergency.

Make-up-work: Make-up work will be given only in the case of a documented emergency. Note that make-up work may be in a different format than the original work, may require more intensive preparation, and may be graded with penalty points. If you miss an assignment and the reason is not considered excusable, you will

receive a zero. It is therefore important to reach out to me—in advance if at all possible—and explain with proper documentation why you missed a given course requirement. Once a deadline has been established for make-up work, no further extensions or exceptions will be granted.

### **Class Recordings**

The use of recordings will enable you to have access to class lectures, group discussions, and so on in the event you miss a synchronous or in-person class meeting due to illness or other extenuating circumstance. Our use of such technology is governed by the Federal Educational Rights and Privacy Act (FERPA) and UTEP's acceptable-use policy. A recording of class sessions will be kept and stored by UTEP, in accordance with FERPA and UTEP policies. Your instructor will not share the recordings of your class activities outside of course participants, which include your fellow students, teaching assistants, or graduate assistants, and any guest faculty or community-based learning partners with whom we may engage during a class session. You may not share recordings outside of this course. Doing so may result in disciplinary action.

### **Copyright Statement for Course Materials:**

All materials used in this course are protected by copyright law. The course materials are only for the use of students currently enrolled in this course and only for the purpose of this course. They may not be further disseminated.

### **Technology Requirements:**

Course content is delivered via the Internet through the Blackboard learning management system. Ensure your UTEP e-mail account is working and that you have access to the Web and a stable web browser. Google Chrome and Mozilla Firefox are the best browsers for Blackboard; other browsers may cause complications. When having technical difficulties, update your browser, clear your cache, or try switching to another browser.

You will need to have access to a computer/laptop and internet access. As the course is asynchronous, there is no need to have video conferencing ability; however, I recommend some form of instant communication to complete your group project.

If you do not have a word-processing software, you can download Word and other Microsoft Office programs (including Excel, PowerPoint, Outlook and more) for free via UTEP's Microsoft Office Portal. Click the following link for more information about [Microsoft Office 365](#) and follow the instructions.

IMPORTANT: If you encounter technical difficulties beyond your scope of troubleshooting, please contact the [UTEP Help Desk](#) as they are trained specifically in assisting with technological needs of students.

### **Course Communication: How we will stay in contact with each other:**

Because this is an online class, we won't see each other in the ways you may be accustomed to: during class time, small group meetings, and office hours. However, there are a number of ways we can keep the communication channels open:

Office Hours: We will not be able to meet on campus, but I will still have office hours for your questions and comments about the course. My office hours will be held on Blackboard Collaborate. I will announce when I am holding these when I have a better idea of when folks are available.

Email: UTEP e-mail is the best way to contact me. I will make every attempt to respond to your e-mail within 24-48 hours of receipt. When e-mailing me, be sure to email from your UTEP student account and please put the course number in the subject line. In the body of your e-mail, clearly state your question. At the end of your e-mail, be sure to put your first and last name.

Discussion Board: If you have a question that you believe other students may also have, please post it in the Help Board of the discussion boards inside of Blackboard. Please respond to other students' questions if you have a helpful response.

Announcements: Check the Blackboard announcements frequently for any updates, deadlines, or other important messages. I will always try to send a copy to your email, but announcements will always be permanently stored on Blackboard.

### **Student Conduct:**

**Safe Space:** This class will be treated as a safe space, where each student will feel comfortable sharing ideas. To that end we will follow a "golden rule" format. Treat each other as you would like to be treated during class discussions. Disagreement is both accepted and highly encouraged, however we must remember that while respectful discussion is often fruitful, insults and badgering are not and will not be tolerated.

**Netiquette:** As we know, sometimes communication online can be challenging. It's possible to miscommunicate what we mean or to misunderstand what our classmates mean given the lack of body language and immediate feedback. Therefore, please keep these netiquette (network etiquette) guidelines in mind. Failure to observe them may result in disciplinary action.

- Always consider audience. This is a college-level course; therefore, all communication should reflect polite consideration of other's ideas.
- Respect and courtesy must be provided to classmates and to the instructor at all times. No harassment or inappropriate postings will be tolerated.
- When reacting to someone else's message, address the ideas, not the person. Post only what anyone would comfortably state in a face-to-face situation.
- Blackboard is not a public internet venue; all postings to it should be considered private and confidential. Whatever is posted on in these online spaces is intended for classmates and professor only. **Do not copy documents and paste them to a publicly accessible website, blog, or other space.**

### **Student Conduct**

#### ***Class Environment***

You are always expected to treat your fellow classmates and your instructional team with respect, regardless of the venue. Most of the course will be conducted asynchronously and in virtual spaces. However, I expect all of you to act in ways that would be deemed appropriate if we were together in person. If you feel that you have been treated with disrespect, please inform the person immediately. Sarcasm and humor do not always translate well through text-based interactions, so be responsible for your words. If you have continued issues with a fellow classmate, please contact Dr. McCabe as soon as possible.

#### ***Academic Dishonesty***

It is the official policy of the University that all suspected cases or acts of alleged scholastic dishonesty must be referred to the Dean of Students for investigation and appropriate disposition. It is contrary to University policy for a faculty member to assign a disciplinary grade such as an "F" or zero to an assignment, test, examination, or other course work as a sanction for admitted or suspected scholastic dishonesty in lieu of normally charging the student through the Dean of Students. Similarly, students are prohibited from proposing and/or entering into an arrangement with a faculty member to receive a grade of "F" or any reduced grade in lieu of being charged with scholastic dishonesty. Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, and the submission for credit of any work or materials that are attributable in whole or

in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

### ***Plagiarism***

"Plagiarism" means the appropriation of another person's ideas, processes, results, or words without giving appropriate credit. This includes intentionally, knowingly or carelessly, presenting the work of another as one's own; failing to credit sources used in a work product; attempting to receive credit for work performed by another; failing to cite the World Wide Web, databases and other electronic resources. Written work will be checked for plagiarism.

### ***Students with Disabilities Policy***

If you have or suspect a disability and need an accommodation you should contact Center for Accommodations and Support (CASS) at 747-5148 or at [dss@utep.edu](mailto:dss@utep.edu) or go to Room 106 Union East Building. I will be contacting you individually to address your individual accommodations.

### ***Student Responsibilities during COVID-19***

- Complete self-screening ([screening.utep.edu](https://screening.utep.edu)) prior to every campus visit.
- Complete COVID-19 student training at [this site](#).
- Contact instructor if temporary accommodations due to COVID-19 are needed (i.e., due to positive COVID-19 test, symptoms, or exposure).
- If unable to wear a face covering (e.g., medical reasons), the best course of action is to enroll in courses that are entirely online or to work with academic advisors, if necessary, to identify alternative courses. If this is not possible, request an accommodation from [Center for Accommodations and Support Services](#) (CASS) prior to coming to campus for in-person activities. Students who receive an accommodation to not wear a face covering must share this with the professor and work to minimize contact with others in the class.

### ***Syllabus Change Policy***

This syllabus is a guide for the course and is subject to change with advance notice.

Week	Date	Topic	Assignments
1	Jan 19- Jan 22	Course introduction and policies, syllabus,	-Reading Quiz Week 1: Question Pro Survey
2	Jan 25- Jan 29	Recap of background information Chapters 1-4	-Reading Quiz Week 2
3	Feb 1- Feb 5	<u>Section 1: Salt and Water Balance</u> Chapters: 5 & 27	Feb 3: Last Day to Register -Reading Quiz Week 3
4	Feb 7- Feb 12	Chapters 28 & 29	-Reading Quiz Week 4 -Group Project Part 1 Due Sunday by midnight
5	Feb 15- Feb 19		Feb 19: Graduation application deadline -Test #1
6	Feb 22- 26	<u>Section 2: Food, Energy and Temperature</u> Chapters: 6-8	-Reading Quiz Week 6
7	Mar 1- Mar 5	Chapters 9 & 10	-Reading Quiz
8	Mar 8- Mar 12		-Test #2 -Group Project Part 2 Due Sunday by midnight
9	Mar 15- Mar 19	SPRING BREAK (NO CLASS)	
10	Mar 22- Mar 26	<u>Section 3: Muscle &amp; Physiological Gases</u> Chapters 20 & 21	Mar 26: Cesar Chavez Holiday (No Classes) -Reading Quiz Week 10
11	Mar 29- Apr 2	Chapters 22 & 23	Apr 1: Drop/Withdrawal Deadline -Reading Quiz Week 11
12	Apr 5 Apr 9	Chapters 24 & 25	-Reading Quiz Week 12 -Group Project Part 3 Due Sunday by midnight
13	Apr 12- Apr 16		-Test #3
14	Apr 19- Apr 23	<u>Section 4: Integrating Systems</u> Chapters 12 & 14	-Reading Quiz Week 14
15	Apr 26- Apr 30	Chapters 15 & 17	-Reading Quiz Week 15
16	May 3- May 7		May 6: Last Day of Classes -Test #4 -Group Project Part 4 due Sunday, May 9 by midnight.
Finals	May 10- May 14	Finals Week	-Final Exam available: Tuesday, May 11- Wednesday, May 12