

Course Syllabus: Animal Physiology Lab: BIOL 3108-02L (1 credit)

Fall 2026, Texas A&M University-San Antonio, College of Arts & Sciences, Department of Natural Sciences

Lab Meeting Times: Tuesdays 11:00 AM - 1:45 PM

Lab Meeting Location: Madla 322

Instructor: Tara Korzekwa, MSc. **Email:** tara.korzekwa@tamusa.edu; tkkorzek@tamusa.edu

Office Hours: Thurs. & Fri. 11AM – 1:30PM; & by appointment – please email me at the address above!

Office: STEM 311Z

**I do not frequently check Blackboard messages! **

Course Description

This lab course offers hands-on experience in fundamental principles of animal physiology. Students will conduct experiments to examine physiological systems, including respiration, circulation, osmoregulation, and metabolism. The course emphasizes data collection, analysis, and the scientific method.

Prerequisites: C or better in [BIOL 1306](#), [1106](#), and [BIOL 1307](#), [1107](#).

Corequisites: [BIOL 3308](#). TSI Restriction(s): Reading, Writing, and Math

Learning Objectives:

This course will familiarize students with the basic principles of the integrated science of animal physiology, i.e. the dynamics of physiological processes as influenced by interrelationships between organisms and their environment, including interactions with other organisms that leads to a diversity in form and function on earth. Specifically:

- Students will be able to apply the scientific method to various scientific questions by formulating testable hypotheses, designing experiments, collecting data, statistically analyzing and interpreting data, and making appropriate conclusions based on those data,
- Students will demonstrate the ability to communicate scientific information through oral and written formats,
- Students will be able to use and understand the primary scientific literature of science,
- Students will gain a familiarity with core concepts of biology from genetics, evolution, and a diversity of biotic systems over the course of the semester, and
- Student will gain experience in using current technologies associated with the biological sciences.

Required Material

Laboratory instruction handouts provided on Blackboard. You are also **HIGHLY** encouraged to work off of a **computer or laptop with audio/microphone** as a phone does not have the capacity to run some of the virtual material. If you need a computer or wi-fi, please contact IT directly for assistance. IT contact information can be found in the Table of Contents in Blackboard as well as the University website. Furthermore, computer labs on campus are open and available to you! Finally, it is up to the student to have a **stable internet/browser connection** when conducting any online coursework.

- Signed safety agreement prior to *start of second lab meeting*.
- **Lab coats must be purchased and worn in the lab every week.** If you forget your coat, you will be required to rent one for \$2 or leave the lab for the day and take a zero. Renting is **dependent on lab coat availability**.
- **You must wear closed toed shoes and pants to lab each week. Students not in proper attire will be asked to leave with *limited* make-up opportunity.**

- Students must log-in regularly to both the Blackboard site and to their TAMUSA email account to keep updated on information related to the class.
- Lab Notebook (see Lab Notebook Guidelines on Blackboard)

Grading Scheme

Performance in this course is based on your efforts in the following.

Assessment Type	Point Value
Pre-Lab Quizzes (9 at 10 pts each)	90
Lab Notebook Entries (10 total; points vary)	260
Total	350

Late work: I do **not** accept late work unless it is due to a university approved and documented absence or an unavoidable situation. If such circumstances arise, you are required to communicate with me **within 24 hours of the due date** for the assignment in question. If you do not, you will receive a zero. *It is at my discretion whether I will deduct points for approved late work.*

Attendance

- **Mandatory.** However, *if a student misses more than 3 laboratory classes in a regular semester then the student will automatically fail the course per Biology Program requirements.* Please see a more detailed description in the **Laboratory Attendance Policy.**

Lab Handouts

- Will be posted on Blackboard. Students are responsible for printing out and bringing to lab, as needed.

Lab Instructions

- You *are expected* to have read the lab prior to arriving in class that day.
- I will provide labs to you *prior* to class. It is very important that you arrive prepared to perform the lab, and you must have entered any *Introductory Information and Material / Methods* into your lab notebook *prior* to the beginning of class.
- You will have **pre-lab quizzes** in order to query your preparedness for the current lab period according to the lab schedule in the syllabus. These quizzes will be conducted during the first 10 minutes of lab and will consist of 5-10 questions over the previous lab as well as the current lab to ensure you are prepared and have read the handout. **If you are late to class and miss the pre-lab quiz, you will not be able to make it up. Please plan to arrive on time!** These quizzes will also be utilized to track lab attendance throughout the semester.

Laboratory Notebook (hand-written) and Participation

- You need to maintain a bound composition notebook, preferably with graph rather than lined paper.
- You will be required to bring your lab notebook to every lab. **This is where you will complete all post-lab assignments that will be graded during each lab notebook submission (see schedule).**
- Prior to lab, you must have entered Introductory information and Material / Methods, as needed.
- During lab you will enter data collected during lab, data analysis and results, and data interpretation.

- You must **hand-write** items in the notebook – not typed or cut/paste. There may be instances where cut/paste is allowed, but please check with me first.
- Prior to leaving lab, you should outline conclusions & hypotheses, and answer questions posed in the lab handouts here (post-lab questions).
- **You must actually participate in lab activities**, not sit back and let your lab-mates do all the work while you simply copy down all the results. If you do not actually participate, I will not give you credit for the lab notebook entry that day. I also will assess the level of participation from each session. For example, if I figure that you put in 50% effort on a lab activity, you will receive no more than 50% of the available points (given that everything you have written is 100% correct).
- There will be instructions on how to use your lab book given in lab class and posted under course content on Blackboard; the content of your notebook will be graded.
 - *You will also have access to the grading rubrics I will use when submitting your notebook; I recommend using these as 'check-lists'.*
- Notebook entries are due **the day prior to the next week's lab** on Blackboard. You will be provided a link and document for you to include JPEGs or Blackboard compatible files of your notebook entries for submission. I will accept notebook entry submissions through this method only by the due date in Blackboard. **See late work on the previous page. **
- **AI use is highly discouraged and will be counted as plagiarism in this course if/when detected. As a biology/science major, it is important to be able to write scientifically and think critically especially when interpreting experimental results.**
 - Please see the AI policies prior to the semester schedule.

Laboratory Attendance Policy - Laboratory courses are unique to your education in that they will provide you with hands-on opportunities to gain the skills and critical thinking processes inherent to the study of biology. For these reasons, we have a *strict departmental attendance policy*:

- Attendance is **mandatory**.
- **If you miss more than 3 labs for whatever reason (excused or not), the maximum score you can earn for the laboratory section of a course is 50%.**
- If you miss a lab section for a university excused absence, you may attempt to make up the lab in another lab section if the following criteria are met and directions followed: *a) the absence is considered a university excused absence and was determined to be one by your primary instructor, b) you must contact via e-mail both your instructor and the instructor of the section you would like to attend, and c) you must receive written confirmation that you are able to make up the lab. If you do not receive written confirmation, you will not be allowed to make up the lab.*

Tardiness is not acceptable. I will start class exactly on time. If you arrive late, *you are responsible for the material that you have missed*, and you will not be disruptive so that the other students are distracted from learning the material. Additionally, it will be *up to my discretion* whether to allow you the opportunity to complete any assignments that have already been administered.

Course Requirements

During lab hours, you may check your phone if you are waiting for an important call or text, and you make take important calls outside the lab room, but you are in lab to complete important tasks. You must keep outside communication to a minimum.

Professional and respectful conduct is expected and appreciated from everyone involved in our course. If you choose to conduct yourself professionally and respectfully, you are allowing your classmates to learn in an enjoyable and peaceful environment, and I appreciate your efforts and acknowledge that you are a respectful member of our classroom. Respectful conduct includes, but is not limited to, participating, avoiding text messaging, not talking disruptively (e.g., when either I am lecturing or a fellow classmate is asking or answering a question), and arriving on time and staying through to the end of lecture.

If you choose to conduct yourself disrespectfully, I reserve the right to deduct points from your grade, disqualify you from earning extra credit points or resort to any other suitable form of penalty. You and I will discuss any perceived disrespectful conduct and potential penalty before it is enacted.

Use of Generative AI Permitted Under Some Circumstances or With Explicit Permission

There are situations and contexts within this course where you may be asked to use artificial intelligence (AI) tools to explore how they can be used. Outside of those circumstances, you should not use AI tools to generate content (text, video, audio, images) that will end up in any student work (assignments, activities, discussion responses, etc.) that is part of your evaluation in this course. Any student work submitted using AI tools should clearly indicate with attribution what work is the student's work and what part is generated by the AI. In such cases, no more than 25% of the student work should be generated by AI. If any part of this is confusing or uncertain, students should reach out to their instructor for clarification before submitting work for grading. Use of AI-generated content without the instructor's permission and/or proper attribution in this course qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

NOTE: Guidance for how to cite AI-generators, like ChatGPT, can be found here

<https://apastyle.apa.org/blog/how-to-cite-chatgpt>

Table 1. Tentative Schedule: Every effort will be made to keep with the following schedule.

***All labs will meet in-person on campus in Madla 322. ***

****All pre-lab quizzes and assignments outlined in the Due Dates column count toward your final grade****

LAB	DATE	TOPIC	ASSIGNMENT DUE DATE (Mondays @ 11:59PM on Blackboard unless noted)
1	Tuesday, 8/25	Introduction, Lab Notebooks, & Data Mining Activity	Pre-Assessment (on Blackboard) Lab Safety Agreement (during lab)
2	Tuesday, 9/1	Protein Fingerprinting	Pre-Lab Quiz 1 (beginning of class) Notebook Entry 1 (Mon., 8/31)
-	Tuesday, 9/8	No Lab Meeting! – Labor Day Holiday (Mon.)!	-
3	Tuesday, 9/15	Osmosis & Diffusion	Pre-Lab Quiz 2 (beginning of class) Notebook Entry 2 (Mon., 9/14)
4	Tuesday, 9/22	Effects of Caffeine on Daphnia Physiology	Pre-Lab Quiz 3 (beginning of class) Notebook Entry 3 (Mon., 9/21)
5	Tuesday, 9/29	Digestive System Overview: "Making Poo" – Part 1	Pre-Lab Quiz 4 (beginning of class) Notebook Entry 4 (Mon., 9/28)
6	Tuesday, 10/6	Digestive System Overview: "Poo Analysis" – Part 2	-
7	Tuesday, 10/13	Thermoregulation: <u>Performance</u> & Metabolism – Part 1	Pre-Lab Quiz 5 (beginning of class) Notebook Entry 5 (Mon., 10/12)
8	Tuesday, 10/20	Thermoregulation: <u>Performance</u> & <u>Metabolism</u> – Part 2	-

9	Tuesday, 10/27	Invertebrate Circulatory System Physiology & Lab 12 Set-Up (Manduca)	Pre-Lab Quiz 6 (beginning of class) Notebook Entry 6 (Mon., 10/26)
10	Tuesday, 11/3	Sensory Systems	Pre-Lab Quiz 7 (beginning of class) Notebook Entry 7 (Mon., 11/2)
11	Tuesday, 11/10	Endocrinology (ELISA) Simulation	Pre-Lab Quiz 8 (beginning of class) Notebook Entry 8 (Mon., 11/9)
12	Tuesday, 11/17	Growth Rate & Temperature Physiology (Energy Budget) – Manduca Wrap-up	Notebook Entry 9 (Mon., 11/16)
13	Tuesday, 11/24	TBD (To Be Determined) →	Notebook Entry 10 (Mon., 11/23) Post-Assessment (on Blackboard)
14	Tuesday, 12/1	San Antonio Zoo Field Trip (refer to Blackboard for additional information/logistics)	“Pre-Lab Quiz 9” (Zoo Activity: hardcopy turn-in)

Important Fall 2026 Dates:

Dates	Event
August 20	Tuition & Fee Payments deadline
August 24	First day of class
September 7	Labor Day Holiday – No Classes / University Closed
September 9	Census Date – Students not paid in full or enrolled in a payment plan by 4:59 pm may be dropped for non-payment
October 5 – October 16	Midterm grading period
November 13	Last day to drop with an automatic “W”
November 25	Study Day – No classes
November 26-November 28	Thanksgiving Holiday – No Classes / University Closed
November 30	Last day to drop a course or withdraw from the University
December 4	Last day of classes
December 5 – December 11	Final exams
December 15	Commencement

The complete [academic calendar](#) is available online.

IMPORTANT POLICIES AND RESOURCES

University Email Policy and Course Communications: All correspondence between professors and students must occur via university email accounts. You must have your Jaguar email account ready and working. If it is not working, contact the help desk at helpdesk@tamusa.edu or at 210-784-HELP (4357). If you don't hear back within 48 hours, contact them again. They have many requests during the first part of the semester, so you may need to follow up with them.

Academic Accommodations for Individuals with Disabilities: Texas A&M University-San Antonio is committed to providing all students with reasonable access to learning opportunities and accommodations in accordance with

The Americans with Disabilities Act, as amended, and Section 504 of the Rehabilitation Act. If you experience barriers to your education due to a disability or think you may have a disability, Disability Support Services is located in the Central Academic Building, Suite 210. You can also contact us via phone at (210) 784-1335, visit us at the [website](#) or email us at dss@tamusa.edu. All students are encouraged to discuss their academic accommodation with Disability Support Services and their instructors as soon as possible.

Academic Learning Center: All currently enrolled students at Texas A&M University-San Antonio can utilize the Academic Learning Center for subject-area tutoring. The Academic Learning Center provides free course-based tutoring to all currently enrolled students at Texas A&M University-San Antonio. Students wishing to work with a tutor can make appointments through the Brainfuse online tutoring platform. Brainfuse can be accessed in the *Tools* section of Blackboard. You can contact the Academic Learning Center by emailing tutoring@tamusa.edu, calling (210) 784-1307, or visiting the Central Academic Building, room 202. Online tutoring is also available for after hours and weekend assistance.

While tutoring hours may change based on tutor schedules and availability, the current tutoring hours for MATH in the ALC are as follows:

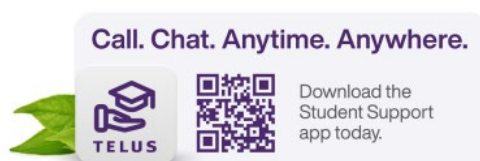
Appointments available MATH Walk in Tutoring – No appointment needed

	Appointments available	Walk in Tutoring – No appointment needed
MONDAY	8 am – 6 pm	9 am – 5 pm
TUESDAY	8 am – 6 pm	9 am – 5 pm
WEDNESDAY	8 am – 6 pm	9 am – 5 pm
THURSDAY	8 am – 6 pm	9 am – 5 pm
FRIDAY	8 am – 5 pm	11 am – 4 pm

Counseling/Mental Health Resources: As a college student, there may be times when personal stressors interfere with your academic performance and negatively impact your daily functioning. If you are experiencing emotional difficulties or mental health concerns, support is available to you through the Student Counseling Center (SCC). To schedule an appointment, visit our website, call 210-784-1331 or visit Madla 120 between the hours of 8:00 AM and 5:00 PM.

All mental health services provided by the SCC are free and confidential (as the law allows). The Student Counseling Center provides brief individual and group therapy, crisis intervention, consultation, case management, and prevention services. *Crisis support is available 24/7/365 by calling the SCC at 210-784-1331 or through the TELUS student support App.*

The TELUS Student Support App provides a variety of mental health resources to including 24/7/365 support for in the moment distress, crisis support, an anonymous peer-to-peer support network, mental health screenings, podcasts, and articles to improve your mental wellbeing.



Emergency Preparedness: JagE Alert is Texas A&M University-San Antonio's mass notification system. In the event of an emergency, such as inclement weather, students, staff and faculty, who are registered, will have the option to receive a text message, email with instructions and updates. To register or update your information visit: <https://tamusa.bbcportal.com/>. More information on emergency response may be found at: [Emergency Operations Plan](#) and the [Emergency Action Plan](#). Download the SafeZone App (<https://safezoneapp.com/>) for emergencies or call (210) 784-1911. Non-Emergency (210) 784-1900.

Financial Aid and Verification of Attendance: According to the following federal regulation, 34 CFR 668.21: U.S. Department of Education (DoE) Title IV regulation, a student can only receive Title IV funds based on Title IV eligibility criteria which include class attendance. If Title IV funds are disbursed to ineligible students (including students who fail to begin attendance), the institution must return these funds to the U.S. DoE within 30 days of becoming aware that the student will not or has not begun attendance. Faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended by the published Census Date (the first week of class). Any student receiving federal financial aid who does not attend prior to the published Census Date (the first week of class) will have their aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester may also need to return a portion of their federal aid.

Jaguar Writing, Language, and Digital Composing Center (WLDCC): The WLDCC provides support to graduate and undergraduate students in all three colleges as well as faculty and staff. Writing tutors work with students to develop reading skills, prepare oral presentations, and plan, draft, and revise their written assignments. Our language tutors support students enrolled in Spanish courses and students composing in Spanish for any assignment. Our digital studio tutors support students working on digital projects such as eportfolios, class presentations, or other digital multimedia projects. The WLDCC offers face-to-face, synchronous online, and asynchronous digital appointments. Students can schedule appointments with the WLDCC in JagWire under the Student Services tab. Click on "Writing, Language, and Digital Composing Center" to make your appointment. Students wanting to work in real-time with a tutor can schedule an "Online Appointment." Students wishing to receive asynchronous, written feedback from a tutor can schedule an "eTutoring" appointment. More information about what services we offer, how to make an appointment, and how to access your appointment can be found on our [website](#). The WLDCC can also be reached by emailing wldcc@tamusa.edu.

Meeting Basic Needs: Any student who has difficulty affording groceries or accessing sufficient food to eat every day or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to submit a [CARE report](#) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to direct you to available resources. A food pantry is available on campus; click [here](#) for hours and contact information.

Military Affairs: Veterans and active-duty military personnel are welcomed and encouraged to visit the Office of Military Affairs for any question involving federal or state VA Education Benefits. Visit the Patriots' Casa building, room 202, or to contact the Office of Military Affairs with any questions at military.va@tamusa.edu or (210)784-1397.

Religious Observances: Texas A&M University-San Antonio recognizes the wide variety of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination,

study, or course work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes for regular session classes.

The Six-Drop Rule: Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student's GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as "F" grades and will impact the student's GPA.

Statement of Harassment and Discrimination: Texas A&M University-San Antonio is committed to the fundamental principles of academic freedom, equal opportunity, and human dignity. To fulfill its multiple missions as an institution of higher learning, A&M-San Antonio encourages a climate that values and nurtures collegiality and the uniqueness of the individual on our campus and within our state, nation, and world. All decisions and actions involving students and employees are to be based on applicable law and individual merit. Texas A&M University-San Antonio, in accordance with applicable federal and state law, prohibits discrimination, including harassment, on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or pregnancy/parenting status. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the University's Civil Rights Officer at 210-784-2061 or titleix@tamusa.edu.

Texas A&M University-San Antonio faculty are committed to providing a safe learning environment for all students and for the university as a whole. If you have experienced any form of sex discrimination or harassment, including sexual assault, sexual harassment, domestic or dating violence, or stalking based on sex, know that help and support are available. A&M-San Antonio's Title IX Coordinator can support those impacted by such conduct in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. The university strongly encourages all students to report any such incidents to the Title IX Coordinator. Please be aware that all A&M-San Antonio employees (other than those designated as confidential resources such as counselors and trained victim advocates) are required to report information about such discrimination and harassment to the university. This means that if you tell a faculty member about a situation of sexual harassment, sexual violence, or other related sex-based misconduct, the faculty member must share that information with the university's Title IX Coordinator (titleix@tamusa.edu, 210-784-2061, CAB 439K). If you wish to speak to a confidential employee who does not have this reporting requirement, you can contact the Student Counseling Center at (210) 784-1331 or visit them in Madla 120.

Pregnant/Parenting Students: Texas A&M-San Antonio does not require a pregnant or parenting student, solely because of that status or issues related to that status, to (1) take a leave of absence or withdraw from their degree or certificate program; (2) limit the student's studies; (3) participate in an alternative program; (4) change the student's major, degree, or certificate program; or (5) refrain from joining or cease participating in any course, activity, or program at the University. The university will provide such reasonable accommodations to pregnant students as would be provided to a student with a temporary medical condition that are related to the health and safety of the student and the student's unborn child. These could include maintaining a safe distance from substances, areas, and activities known to be hazardous to pregnant individuals and their unborn child; excused absences because of illness or medical appointments; modified due dates for assignments; rescheduled tests/exams; taking a leave of absence; and being provided access to instructional materials and video recordings

of lectures for excused absences, if these would be provided to any other student with an excused absence. Pregnant/parenting students are encouraged to contact the Title IX Coordinator with any questions or concerns related to their status (titleix@tamusa.edu; 210-784-2061; CAB 439K).

Texas A&M-San Antonio has also designated the Title IX Coordinator as the liaison officer for current or incoming students who are the parent or guardian of a child younger than 18 years of age. The Title IX Coordinator can provide students with information regarding support services and other resources.

Young Jaguars can support parenting students with daycare if students meet these criteria: (1) must be enrolled in classes at Texas A&M-San Antonio in the current semester, (2) must be Pell eligible or a single parent, (3) child(ren) must be aged 3 to 12-years-old, and (4) child(ren) must be enrolled in Pre-K-3 through 6th grade. Hours of operation is Monday-Thursday 3:30pm-9:00pm. For more information, please contact Young Jaguars at youngjaguars@tamusa.edu or call (210) 784-2636.

Students' Rights and Responsibilities: The following statement of students' rights and responsibilities is intended to reflect the philosophical base upon which University Student Rules are built. This philosophy acknowledges the existence of both rights and responsibilities, which is inherent to an individual not only as a student at Texas A&M University-San Antonio but also as a citizen of this country.

Students' Rights

1. A student shall have the right to participate in a free exchange of ideas, and there shall be no University rule or administrative rule that in any way abridges the rights of freedom of speech, expression, petition and peaceful assembly as set forth in the U.S. Constitution.
2. Each student shall have the right to participate in all areas and activities of the University, free from any form of discrimination, including harassment, on the basis of race, color, national or ethnic origin, religion, sex, disability, age, and pregnancy/parenting or veteran status in accordance with applicable federal and state laws.
3. A student has the right to personal privacy except as otherwise provided by law, and this will be observed by students and University authorities alike.
4. Each student subject to disciplinary action arising from violations of university student rules shall be assured a fundamentally fair process.

Students' Responsibilities

1. A student has the responsibility to respect the rights and property of others, including other students, the faculty, and administration.
2. A student has the responsibility to be fully acquainted with the published University Student Rules found in the Student Handbook, Student Code of Conduct, on our website, and University Catalog, and to comply with them, as well as with federal, state, and local laws.
3. A student has the responsibility to recognize that student actions reflect upon the individuals involved and upon the entire University community.
4. A student has the responsibility to recognize the University's obligation to provide a safe environment for learning.
5. A student has the responsibility to check their university email for any updates or official university notifications.

We expect that students will behave in a manner that is dignified, respectful, and courteous to all people, regardless of sex, ethnic/racial origin, religious background, or disability. Conduct that infringes on the rights of another individual will not be tolerated.

Students are expected to exhibit a high level of honesty and integrity in their pursuit of higher education. Students engaging in an act that violates the standards of academic integrity will find themselves facing academic and/or disciplinary sanctions. Academic misconduct is any act, or attempt, which gives an unfair advantage to the student. Additionally, any behavior specifically prohibited by a faculty member in the course syllabus or class discussion may be considered as academic misconduct. For more information on academic misconduct policies and procedures please review the [Student Code of Conduct](#) or visit the resources available in the [OSRR website](#).