

Texas A&M University – San Antonio
BIOL 2401 02L Human Anatomy and Physiology 1 (Lab)

Fall 2025 Syllabus

Instructor: Alejandro Nunez
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Office Hours: Thursdays 2:00pm – 3:00 pm or by appointment
Days and Time: Thursdays, 11:00 AM – 1:45 PM
Location: STEM Science & Technology 337

Important Summer dates:

Class Schedule – Summer 2025

Course	Format	Location	Days	Time
BIOL 2401-02L	Lab – In Person	Science & Technology Building, Room 337	Thursdays	11:00 AM – 1:45 PM

Course Expectations: This is an active learning class, and we expect students to engage actively throughout the course. Active participation includes:

- Responding to questions posed by the instructor.
- Working with anatomical models in an active and collaborative manner.

Your involvement is crucial for a deeper understanding of the material and for fostering a collaborative learning environment.

Lab class: all assignments and class materials are embedded within the McGraw-Hill Connect website.

Lecture Course Description as per the Academic Course Guide Manual of The Texas Higher Education Coordinating Board (THECB): Anatomy and Physiology I is the first part of a two-course sequence. This course delves into the fundamental principles underlying the structure and function of the human body. The topics covered include the examination of cells, tissues, and organs within the integumentary, skeletal, muscular, nervous, and special senses systems. The course places particular emphasis on understanding the interrelationships among these systems and the mechanisms involved in regulating physiological functions to maintain homeostasis.

Attendance for lectures is equivalent to a lecture exam grade.

Additionally, this course assesses the following student/institutional learning outcomes as required by the Texas Higher Education Coordinating Board (THECB).

They are:

- **Communication** – expressing ideas through effective written, oral, and visual communication.
- **Teamwork** – considering different survey of view and working effectively with others to support a shared purpose or goal.
- **Critical Thinking** – exploring issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.
- **Empirical and Quantitative Skills** – Applying scientific and mathematical concepts to analyze and solve problems.

Learning Outcomes. Upon successful completion of this course, students will:

1. Use anatomical terminology to identify and describe locations of major organs of each system covered.

2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology.

LAB SCHEDULE

Week	Dates	Activities / Topics
1	August 25 – August 31, 2025	Introduction; lab 1: human body, microscopy
2	September 1 – September 7, 2025	lab 2: cells (organelles, cell division, macromolecules, and cell membrane)
3	September 8 – September 14, 2025	lab 3: tissues (epithelial, connective, muscular, and nervous); integumentary system
4	September 15 – September 21, 2025	lab practical 1
5	September 22 – September 28, 2025	lab 4: bones and skeletal tissue; articulations (joints); the skeleton (axial)
6	September 29 – October 5, 2025	lab 5: the skeleton (axial & appendicular)
7	October 6 – October 12, 2025	lab 6: muscles and muscle tissue - Vernier Physio Experiment
8	October 13 – October 19, 2025	lab 7: muscular system (axial & appendicular)
9	October 20 – October 26, 2025	lab practical 2
10	October 27 – November 2, 2025	lab 8: nervous tissues; central nervous system; sheep brain dissection
11	November 3 – November 9, 2025	lab 9: peripheral nervous system; autonomic nervous system - Vernier Physio Experiment
12	November 10 – November 16, 2025	lab 10: special senses; sheep eye dissection
13	November 17 – November 23, 2025	lab practical 3
14	November 24 – November 30, 2025	Thanksgiving holiday – November 28 – November 30
15	December 1 – December 7, 2025	Pig dissection – extra credit opportunity

LAB ASSIGNMENTS		
Assignments		Total (10 assignments)
✓ Smart Book SB (Pre-Labs)	30	300
✓ Virtual labs (VL)	45	450
✓ In Person labs	45	450
✓ Quiz (CFU)	30	300
Total points (assignments)	150	1500

LAB PRACTICALS		
		Total (3 exams)
✓ Online practical exams	250	750
✓ In person practical exams	250	750
Total points (exams)	500	1500
Total (Assignments + exams)		3000

Final Lecture Exam: A comprehensive final lecture exam will be administered in person at the end of semester.

Bonus Credit:

- **Class pre-test** - bonus point opportunity before class starts and will be due the first week of class. No need to study anything. This attempt is to find out what you know entering the class. It does not count against class grade.
- **Assignment bonus points** - embedded within certain McGraw-Hill Lab assignments. You must turn in assignments before their completion date to be eligible for bonus points.

LABORATORY. Students are ***not*** required to purchase a laboratory manual. All laboratory materials are available through McGraw-Hill Connect and provided by the instructor.

Students must attend in-person labs.

Laboratory Course Description as per the Academic Course Guide Manual of The Texas Higher

Education Coordinating Board: The lab component of your course is designed to provide a hands-on learning experience, allowing you to explore human system components and basic physiology.

1. **Apply appropriate safety and ethical standards:** Students will understand and adhere to safety protocols and ethical guidelines while conducting experiments, ensuring a safe and responsible laboratory environment.
2. **Locate and identify anatomical structures:** Students will be able to accurately locate and identify anatomical structures, which is essential for various fields such as biology, anatomy, and physiology.
3. **Appropriately utilize laboratory equipment:** Students will gain proficiency in using a variety of laboratory equipment including microscopes, dissection tools, general lab ware, physiology data

acquisition systems, and virtual simulations, ensuring they can effectively conduct experiments and analyze data.

4. **Work collaboratively to perform experiments:** Students will develop teamwork and collaboration skills by working with their peers to plan and execute experiments, fostering an environment of cooperation and shared learning.
5. **Demonstrate the steps involved in the scientific method:** Students will understand and be able to apply the scientific method, including formulating hypotheses, designing experiments, collecting data, and drawing conclusions based on evidence.
6. **Communicate results of scientific investigations:** Students will learn how to effectively communicate their findings through written reports, oral presentations, and other means, enabling them to share their research with the scientific community and broader audience.
7. **Use critical thinking and scientific problem-solving skills:** Students will develop critical thinking skills by analyzing data, drawing logical conclusions, and applying scientific problem-solving techniques to address research questions and challenges.

These outcomes provide a solid framework for students to develop the essential skills and knowledge needed for success in laboratory-based scientific disciplines

EVALUATION

Grade Points Scale	
A	1000 – 900 pts.
B	899 – 800 pts.
C	799 – 700 pts.
D	699 – 600 pts.
F	below 600 pts.

Lecture Course Grade Calculation	
Lecture Exams	400 pts.
Lecture Quizzes	100 pts.
Lecture Quizzes in class	100 pts.
Final Lecture Exam	100 pts.
Total (Lecture)	700 pts.
Lab grade	300 pts
Total (Lecture + Lab)	1000 pts

REQUIRED MATERIALS.

- **Required Text:** *Seeley's Anatomy and Physiology*, VanPutte, 13th edition. The textbook will be available on Blackboard as an e-text. When you log in the e-text, you must do it with your **TAMUSA e-mail**.

COLLEGE POLICIES AND PROCEDURES. These policies and procedures are presented in the [Rules, Procedures, and Guidelines](#). Quick links to Student Code of Conduct, Scholastic Dishonesty,

Plagiarism, Collusion, and Student Handbook are noted as follows.

- [Academic Standards](#) (Attendance, Grades, Academic Standing and Probation, Eligibility for Participation in College-Sponsored Programs and Events, and Honors)
- [Student Rights and Responsibilities](#)
- [Student Handbook](#)

Attendance. Students must attend the lecture (online) and lab in person. Student attendance counts as a lecture exam grade.

- Laboratory assignments need to be electronically submitted to McGraw-Hill. It is important that students remain cognizant of McGraw-Hill work through the McGraw-Hill website. Remember, **LATE** electronic submissions are accepted anytime during the semester, along with a possible point deduction.

Process for Drops or Withdrawals:

- Prior to the Census Date (noted in the schedule): Faculty will process drops for students who have never attended in person since the first day of class.

Instructor Response Time: One week is required to complete grading on some assignments. In some cases, it may be longer, depending on the nature of the assignment. However, students will always be alerted of any delays.

- If the student emails, please allow at least 24 – 48 hours for the instructor to respond.

STUDENT RESPONSIBILITIES.

- First and foremost, students are responsible for meeting all course requirements regardless of personal events outside of the classroom environment. If these events begin to interfere with meeting the course requirements, students should contact the instructor in person to discuss their options, if any, to continue with the course in a productive manner.
- The reviews posted for each chapter will assist students in knowing which information to focus on for each exam. Therefore, it is important that students practice the designated chapters material many times to learn the concepts covered in the chapter and exam reviews.
- It is important that students regularly actively participate in class to be successful.
- Students are required to inform the instructor immediately if they are having any problems accessing the course. They cannot use this as an excuse for not submitting assignments. If the problem cannot be alleviated in a timely manner, the instructor will work with the student to ensure they do not fall behind.
- The best communication with your instructor is in person but students may also use their personal email service to contact the instructor at hlaravilleg@tamusa.edu in case of an emergency. Students are to communicate with the instructor using proper English rather than “texting” language.
- Contact the Texas A&M University - San Antonio **Helpdesk** if technological errors occur when using Jagwire or Blackboard.

IMPORTANT POLICIES AND RESOURCES

Academic Accommodations for Persons with Disabilities: The Americans with Disabilities Act of 1990, as amended, and the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights protection for individuals with disabilities. Title II of the ADA and Section 504 of the Rehabilitation Act require that students with disabilities be guaranteed equal access to the learning environment through the provision of reasonable and appropriate accommodations for their disability. If you have a disability that may require accommodation, please contact Disability Support Services (DSS) for the coordination of services. The phone number for DSS is (210) 784-1335 and email is dss@tamusa.edu.

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 is an appointment-based center where appointments are made through the Navigate platform. Student's access Navigate through Jagwire in the Student Services tab. The Center is active on campus outreaching to students to highlight services offered. You can contact the Academic Learning Center by emailing tutoring@tamusa.edu or calling (210)-784-1332. Appointments can also be made through JagWire under the services tab.

Counseling Resources: As a college student, there may be times when personal stressors interfere with your academic performance and/or negatively impact your daily functioning. If you or someone you know is experiencing life stressors, emotional difficulties, or mental health concerns at Texas A&M University – San Antonio, please contact the Student Counseling Center (SCC) located in Modular C, Room 166 (Rear entrance) or call 210-784-1331 between the hours of 8 a.m. and 5 p.m., Monday – Friday. After-hours crisis support is available by calling 210-784-1331. Please contact UPD at 911 if harm to self or harm to others is imminent. All mental health services provided by the SCC are free, confidential (to the extent permitted by law), and are not part of a student's academic or university record. SCC provides brief individual and group therapy, crisis intervention, consultation, case management, and prevention services. For more information, please visit www.tamusa.edu/studentcounseling.

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 in JagE Alert, will have the option to receive a text message, email, and/or phone call with instructions and updates. To register or update your information visit: <https://tamusa.bbcportal.com/>. More information about Emergency Preparedness and the Emergency Response Guide can be found here: <https://www.tamusa.edu/upd/index.html>.

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. The faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended the first week of class. Any student receiving federal financial aid who does not attend 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 Center: The Jaguar Writing Center provides writing support to graduate and undergraduate students in all three colleges. Writing tutors work with students to develop reading skills, prepare oral presentations, and plan, draft, and revise their written assignments. Students can schedule appointments with the Writing Center in JagWire under the student services tab. More information about what services we offer, how to make an appointment, and how to arrange your appointment can be found on our website at www.tamusa.edu/Writing-Center. The Writing Center can also be reached by emailing writingcenter@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 contact the Dean of Students (DOS@tamusa.edu) for support. In addition, you may notify the instructor if you are comfortable doing so.

Military Affairs: Veterans and active-duty military personnel are welcomed and encouraged to communicate, in advance, if possible, about special circumstances (e.g., upcoming deployment, drill requirements, disability accommodations). You are also encouraged to visit the Patriots' Casa in-person, Room 202, or to contact the Office of Military Affairs with any questions at military@tamusa.edu or (210)784-1397.

Religious Observances: Texas A&M University-San Antonio recognizes the diversity 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 A&M System policy, students are provided an opportunity to make up any examination, study, or 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, equality of 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, diversity, pluralism, and the uniqueness of the individual within our state, nation, and world. All decisions and actions involving students and employees should 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, gender identity, or gender expression. Individuals who believe they have experienced harassment or discrimination prohibited by this statement are encouraged to contact the appropriate offices within their respective units.

Texas A&M University-San Antonio faculty are committed to helping create a safe learning environment for all students and for the university as a whole. If you have experienced any form of sex- or gender-based discrimination or harassment, including sexual assault, sexual harassment, domestic or dating violence, or stalking, know that help and support are available. A&M-San Antonio has staff members trained to support survivors 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 university. Please be aware that all A&M-San Antonio employees (other than those designated as confidential resources such as counselors and other healthcare providers) are required to report information about such discrimination and harassment to the university. This means that if you tell a faculty member about an incident of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the university's Title IX Coordinator. If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact the Student Counseling Center at (210) 784-1331, Modular C.

Students' Rights and Responsibilities: The purpose of the following statement is to enumerate the essential provisions of students' freedoms and responsibilities to learn at Texas A&M University-San Antonio. All students are required to follow all policies and regulations as set forth by The Texas A&M University System, including the A&M-San Antonio Student Code of Conduct.

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 procedure 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, sexual orientation, gender identity, gender expression, genetic information, 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 staff, and the administration.
2. A student has the responsibility to be fully acquainted with and compliant with the University Student Rules found in the Student Handbook, Student Code of Conduct, on our website, and in the University Catalog.
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.
6. 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, sexual orientation, or disability. Behaviors that infringe on the rights of another individual will not be tolerated.