

Texas A&M University – San Antonio
BIOL 2401 Human Anatomy and Physiology I — Laboratory Section

Fall 2026 Syllabus

Instructor: Dr. Humberto Lara MD, PhD.

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Office Hours:

Days and Time: Mondays, 3:00 PM – 5:45 PM - Thursdays, 10:30 AM – 12:30 PM.

Office Location: STEM Building, Room 211M

Please email me to request an appointment. I will respond with a link where you can select a convenient meeting time.

Important Fall 2026 Dates

Date	Event
Aug. 14 (Fri)	Last day to apply for admission
Aug. 23 (Sun)	Registration deadline
Aug. 24 (Mon)	First day of 16-week classes
Sept. 7 (Mon)	Labor Day (College Closed)
Sept. 9 (Wed)	Census Date (Last day to withdraw without a "W")
Nov. 25–27 (Wed–Fri)	Thanksgiving Break
Nov. 26 (Thu)	Thanksgiving Day
Dec. 7–11	Final exam period/end-of-semester activities
Dec. 12 (Sat)	Semester ends

Weekly Class Schedule

Day	Course and Section	Class Type	Time	Room
Wednesday	BIOL 2401-06L	Laboratory	11:00 AM–1:45 PM	LAB 337
Wednesday	BIOL 2401-07L	Laboratory	3:00–5:45 PM	LAB 337
Friday	BIOL 2401-01L	Laboratory	11:00 AM–1:45 PM	LAB 337

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.

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.

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 perspectives 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 between 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.

Laboratory Component

- Laboratory Total: 3000 points converted to **300 points**

Laboratory work is graded using 3,000 raw points.

BIOL 2401 – Laboratory Assignments Schedule (Fall 2026)

Week	Dates	Activities / Topics
1	August 24 – August 30	Introduction Lab 1: Human Body, Anatomical Terminology, and Microscopy
2	August 31 – September 6	Lab 2: Cells (Organelles, Cell Division, Macromolecules, and Cell Membrane)
3	September 7 – September 13	Lab 3: Tissues (Epithelial, Connective, Muscular, and Nervous) Integumentary System
4	September 14 – September 20	Lab Practical 1
5	September 21 – September 27	Lab 4: Bones and Skeletal Tissue, Articulations (Joints) The Axial Skeleton
6	September 28 – October 4	Lab 5: The Skeleton (Axial & Appendicular)
7	October 5 – October 11	Lab 6: Muscles and Muscle Tissue
8	October 12 – October 18	Lab 7: Muscular System (Axial & Appendicular)
9	October 19 – October 25	Lab Practical 2
10	October 26 – November 1	Lab 8: Nervous Tissue, Central Nervous System Sheep Brain Dissection
11	November 2 – November 8	Lab 9: Peripheral Nervous System Autonomic Nervous System
12	November 9 – November 15	Lab 10: Special Senses Sheep Eye Dissection
13	November 16 – November 22	Review
14	November 23 – November 29	Thanksgiving Holiday (November 25–27)
15	November 30 – December 6	Lab Practical 3

Important Notes

- Labs are hands-on with anatomical models and dissections
- Practical Exams are in person and based on structure identification

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

Laboratory Materials

Students are **not required to purchase a laboratory manual**. All laboratory materials, assignments, and learning resources are provided through **McGraw Hill Connect** and supplemented with instructor-provided materials. Students are expected to access these resources regularly and complete all assigned laboratory activities as scheduled.

Students must attend in-person labs.

Laboratory Course Description (*Texas Higher Education Coordinating Board – Academic Course Guide Manual*)

The laboratory component of this course provides a hands-on learning experience that complements lecture content by allowing students to explore the structure and function of the human body through observation, experimentation, and scientific inquiry. Students will develop practical laboratory skills while applying anatomical and physiological concepts in a safe, collaborative, and scientifically rigorous environment.

Upon successful completion of the laboratory component, students will be able to:

1. **Apply appropriate safety and ethical standards** by following established laboratory safety procedures and demonstrating ethical conduct during all laboratory activities and experiments.
2. **Locate and identify anatomical structures** using models, specimens, microscopic preparations, and other laboratory resources to reinforce understanding of human anatomy.
3. **Use laboratory equipment appropriately** by demonstrating proficiency with microscopes, dissection instruments, standard laboratory equipment, physiology data acquisition systems, and virtual laboratory simulations.
4. **Work collaboratively in a laboratory setting** by planning, conducting, and completing experiments effectively as part of a team while demonstrating professionalism and shared responsibility.
5. **Apply the scientific method** by developing hypotheses, designing experiments, collecting and analyzing data, and drawing evidence-based conclusions.
6. **Communicate scientific findings effectively** through laboratory reports, data analysis, discussions, presentations, and other appropriate scientific formats.
7. **Demonstrate critical thinking and scientific problem-solving skills** by interpreting experimental results, evaluating evidence, and applying scientific reasoning to solve laboratory-based problems.

These learning outcomes provide a strong foundation for developing technical skills, scientific reasoning, and collaborative abilities essential for success in anatomy and physiology and other 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.

Instructor-Provided Materials (A&P I – 2401)

Laboratory Materials

The following laboratory materials will be provided by the instructor and/or the department:

- Anatomical models (skeletal, muscular, nervous system, and organ systems)
- Microscopes and prepared histology slides
- Laboratory manual and digital lab resources
- Dissection specimens (e.g., sheep brain and sheep eye) and required lab tools

IMPORTANT TAMUSA POLICIES AND RESOURCES

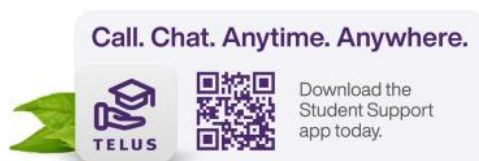
Academic Accommodations for Individuals with Disabilities: Texas A&M University-San Antonio is committed to providing all students with reasonable access to learning opportunities and accommodations in accordance with The Americans with Disabilities Act, as amended, and Section 504 of the Rehabilitation 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 <https://www.tamusa.edu/Disability-Support-Services/index.html> or email us at dss@tamusa.edu. Disabilities may include, but are not limited to, attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability-related needs with Disability Support Services as soon as possible.

Academic Learning Center: 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.

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, call 210-784-1331 or visit Madla 120. 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. For more information on SCC services visit <http://tamusa.edu/studentcounseling>

Crisis support is available 24/7 by calling the SCC at 210-784-1331.

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



QR code linking to the TELUS Student Support app for mental health resources.

Emergency Preparedness: JagE Alert is Texas A&M University-San Antonio's mass notification. 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 about Emergency Operations Plan and the Emergency Action Plan can be found here: <https://www.tamusa.edu/about-us/emergency-management/>

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 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.

Writing, Language, and Digital Composing Center: The Writing, Language, and Digital Composing Center supports graduate and undergraduate students in all three colleges as well as faculty and staff. 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. Students can

schedule appointments through JagWire under the Student Services tab. Click on “Writing, Language, and Digital Composing Center” to make your appointment. The Center offers face-to-face, synchronous online, and asynchronous digital appointments. More information about what services we offer, how to make an appointment, and how to access your appointment can be found on our website at <https://www.tamusa.edu/academics>.

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 referral (<https://www.tamusa.edu/university-policies/Student-Rights-and-Responsibilities/file-a-report.html>) for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to direct you to available resources.

Office Hours: All faculty with teaching assignments should include regularly scheduled office hours on each syllabus in addition to "by appointment." Please review your appointment letter for the number of weekly office hours you are expected to set. Regularly scheduled office hours should also be posted outside your office door (where applicable).

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 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 the policy, students are provided with 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- or gender-based 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 modifications to pregnant students as would be provided to a student with 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 who meet this criterion: Must be enrolled in classes at TAMUSA in the current semester. Must be Pell eligible or a single parent. They serve children ages 3 to 12-years-old. Children must be enrolled in Pre-K-3 through 6th grade.

youngjaguars@tamusa.edu (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, sexual orientation, gender identity, gender expression, 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 students' 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, sexual orientation, 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 (<https://www.tamusa.edu/university-policies/student-rights-and-responsibilities/documents/Student-Handbook-2022-23.pdf>) or visit the resources available in the OSRR website (<https://www.tamusa.edu/university-policies/student-rights-and-responsibilities/academic-integrity.html>)

Broader Use of Generative AI Permitted Within Guidelines

The use of **generative artificial intelligence (AI)** tools, including ChatGPT and similar technologies, is permitted in this course as a learning aid. Students may use these tools to support brainstorming, reviewing concepts, improving writing clarity, generating study materials, or other educational purposes.

Students are responsible for ensuring that all submitted work accurately reflects their own understanding of the course material. Any content generated or substantially assisted by AI must be

appropriately acknowledged and cited in accordance with instructor guidelines and accepted academic citation practices (including in-text citations, quotations when appropriate, and reference list entries). Students are ultimately responsible for verifying the accuracy, completeness, and originality of any AI-generated content they choose to use. AI-generated information may contain factual errors, incomplete explanations, or fabricated references and should not be relied upon without careful review.

Using AI to complete assignments without appropriate attribution, submitting AI-generated work as entirely one's own, or using AI in a manner that violates course instructions constitutes academic misconduct and is subject to the policies outlined in the **Texas A&M University–San Antonio Student Code of Conduct** and the University's **Academic Integrity Policy**.

When in doubt about whether or how AI may be used for a particular assignment, students are expected to consult the instructor before submitting their work.