TEXAS A&M UNIVERSITY
SAN ANTONIO

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

Instructor: Dr. Humberto Lara MD, PhD.

E-mail: hlaravilleg@tamusa.edu
Office Hours: Mondays 1:00 – 2:00 PM | Tuesdays 11:00 AM – 12:00 PM | Wednesdays 3:00 – 3:30 PM | Thursdays 11:00 AM – 12:00 PM

Weekly Class Schedule

Course	Days	Start	End	Location
BIOL 2401-003 **Lecture**	***M, W, F***	**02:00 PM**	**02:50 PM**	Sci & Tech 143
BIOL 2401-001 **Lecture**	***T, R***	**09:30 AM**	**10:45 AM**	Sci & Tech 143
BIOL 2401-02L **Lab**	***Thursday***	**11:00 AM**	**01:45 PM**	Sci & Tech 337
BIOL 2401-03L **Lab**	***Thursday***	**03:00 PM**	**05:45 PM**	Sci & Tech 337
BIOL 2401-06L **Lab**	***Friday***	**11:00 AM**	**01:45 PM**	Sci & Tech 337

Appointments:
To schedule a meeting, please use the following link: Book time with Humberto Lara Villegas

Spring 2026 - Academic Calendar

Regular 16-Week Session

Date	Day	Event
Jan 13, 2026	Tue	Tuition & fee payment deadline
Jan 19	Mon	*Martin Luther King, Jr. Day* (No classes)
Jan 20	Tue	First day of classes
Jan 27	Tue	Last day to register
Feb 4	Wed	Census Date
Feb 5	Thu	Drop for non-payment deadline
Feb 23 – Mar 6	Mon–Fri	Midterm grading period
Mar 9 – Mar 14	Mon–Sat	Spring Break (No classes)
Apr 3	Fri	Study day (No classes)
Apr 17	Fri	Last day to drop with automatic "W"
May 1	Fri	Last day to withdraw
May 4	Mon	Last day of scheduled classes
May 5	Tue	Study day (No classes)
May 6 – May 12	**Wed–Tue**	**Final examinations**
May 12	Tue	End of term
May 15	Fri	All grades are due by noon

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.
- Responding to Kahoot questions.
- Completing the Exit Ticket at the end of class.

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

Lecture class: All assignments and class materials will be accessible through the Blackboard lecture course.

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.

LECTURE ASSIGNMENTS

Lecture Components (700 points total):

- **Exit Tickets (Minute Papers) – 30 assignments: 60 points**
- **Lecture Assignments – 15 assignments: 100 points (≈ 6.6 points each)**
- **Exam 1 – 50 points**
- **Exam 2 – 60 points**

- **Exam 3 – 70 points**
- **Exam 4 – 80 points**
- **Exam 5 – 100 points**
- **Final Exam – 120 points**
- **Practice Tests – 6 Practice tests: 60 points**

Total Lecture Points: 700

Laboratory Component

- **Laboratory Total: 300 points**

Course Total

- **Lecture + Laboratory: 1,000 points (100%)**

***Students must use **Respondus Lockdown Browser with a camera** when taking online quizzes.

Lecture - Course Schedule Overview

Week	Start Date	End Date	Topics / Activities
1	Jan 19	Jan 25	Chapter 1: The Human Organism
	Jan 19	Jan 19	**MLK Day – Jan 19 (No Classes)**
2	Jan 26	Feb 1	Chapter 2: The Chemical Basis of Life
3	Feb 2	Feb 8	Chapter 3: Cell Biology
			Lecture Exam 1
4	Feb 9	Feb 15	Chapter 4: Tissues
5	Feb 16	Feb 22	Chapter 5: Integumentary System
6	Feb 23	Mar 1	Chapter 6–8: The Skeletal System
			Lecture Exam 2
7	Mar 2	Mar 8	Chapter 9: Muscular System
8	Mar 9	Mar 15	**Spring Break – No Classes**
9	Mar 16	Mar 22	Chapter 10: Muscular System
10	Mar 23	Mar 29	Chapter 11: Nervous Tissue
			Lecture Exam 3
11	Mar 30	Apr 5	Chapter 12: Spinal Cord and Spinal Nerves
12	Apr 6	Apr 12	Chapter 13: Brain and Cranial Nerves
13	Apr 13	Apr 19	**Lecture Exam 4**
14	Apr 20	Apr 26	Chapter 16: Autonomic Nervous System
15	Apr 27	May 3	Chapter 15: Special Senses
			Lecture Exam 5
16	**May 4**	**May 8**	**Final Exams**

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BIOL 2401 – Laboratory Assignments Schedule

Week	Dates	Activities / Topics
1	January 19 – January 25	Introduction Lab 1: Human Body, Microscopy
2	January 26 – February 1	Lab 2: Cells (organelles, cell division, macromolecules, and cell membrane)
3	February 2 – February 8	Lab 3: Tissues (epithelial, connective, muscular, and nervous) Integumentary System
4	February 9 – February 15	**Lab Practical 1**
5	February 16 – February 22	Lab 4: Bones and Skeletal Tissue - The Skeleton (axial)
6	February 23 – March 1	Lab 5: The Skeleton (axial & appendicular)
7	March 2 – March 8	Lab 6: Muscles and Muscle Tissue
8	**March 9 – March 15**	***Spring Break* – No Labs**
9	March 16 – March 22	Lab 7: Muscular System (axial & appendicular)
10	March 23 – March 29	**Lab Practical 2**
11	March 30 – April 5	Lab 8: Nervous Tissue (Central Nervous System & **Sheep Brain Dissection**)
12	April 6 – April 12	Lab 9: Peripheral Nervous System (Autonomic Nervous System)
13	April 13 – April 19	Lab 10: Special Senses (**Sheep Eye Dissection**)
14	April 20 – April 26	Review
15	April 27 – May 3	**Lab Practical 3**

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.
- **Lecture Extra Credit:** The student with the highest overall Kahoot average at the end of the term will receive 50 extra credit points. All other students will earn extra credit points proportional to their Kahoot average relative to the highest score.

Example: If the highest Kahoot average is 100%, that student earns 50 points. A student with a 90% average would earn 45 extra credit 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 are 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.

PROVIDED 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.**

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

Lecture Materials

The following lecture materials will be provided by the instructor:

- Lecture slides with **highlighted text, added figures, photos, and short explanatory videos**
- Practice exams, and review materials
- In-class activities, including Kahoot quizzes
- Exit Tickets

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

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IMPORTANT TAMUSA POLICIES AND RESOURCES

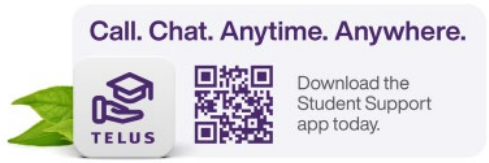
Academic Accommodations for Individuals with Disabilities: Texas A&M University-San Antonio is committed to providing all students with reasonable access to learning opportunities and accommodations in accordance with The Americans with Disabilities Act, as amended, and Section 504 of the Rehabilitation 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 to 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 (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.

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

Use of artificial intelligence (AI) tools, including ChatGPT, is permitted in this course for students who wish to use them. To adhere to our scholarly values, students must cite any AI-generated material that informed them of their work (this includes in-text citations and/or use of quotations, and in your reference list). Using an AI tool to generate content without proper attribution qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.