



TEXAS A&M UNIVERSITY
SAN ANTONIO

General Biology I – Attributes of Living Systems
BIOL 1306 Section 002 - 3 credits
Texas A&M University San Antonio, College of Arts and Sciences
Fall 2025 Syllabus

Mr. Andrew J Rodriguez

Office: STEM 311 – **Google voice:** 210-560-1467

e-mail: arodrigu@tamusa.edu (BEST way to contact me)

Office hours: Fri 8:50-9:50am, TR 4:45-5:15p or via zoom by appointment.

***Class Meeting Times and Location(s):**

Lecture: TR 3:30 – 4:45pm SciTech 145

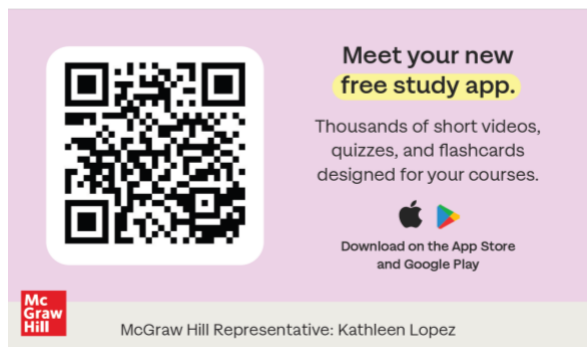
Textbook for Lecture *REQUIRED***:**

Biology – Raven et al. – 13th edition McGraw Hill – ****BOOK FEE ASSESSED-SHOULD HAVE ACCESS ON FIRST DAY OF CLASS****

****You may also purchase a loose copy at a special rate from the publisher. This is a great option if you know you will need a physical copy of the text.**

Other Required Materials:

- **Lab: MUST BE ENROLLED IN BIOL 1106 LAB CONCURRENTLY (unless already taken)**
- **Blackboard – this is where you will go for lectures, grades, and weekly announcements**
 - Power-point versions of lectures will be posted on Blackboard
 - Announcements regarding lectures or labs may be posted on Blackboard
 - Grades for individual assignments/labs etc... will be posted on Blackboard as we go along.
- **On-Line Learning System Components**
 - We will be using “McGraw Hill Connect” which is an on-line tool for learning and studying modules. You will have access to this via blackboard. It will require a one-time set-up.



Catalog Description and Prerequisites:

Course Description: This course examines the fundamental molecular, cellular, and genetic principles characterizing living organisms including the role of the scientific method in the discovery of these principles. Specific concepts include the chemical basis for life, energy transformations, cell structure and function, the metabolic processes of respiration and photosynthesis, cell reproduction, and basic concepts of heredity and genetics. This course is designed for students majoring in science fields. This course meets the standards for the life and physical Sciences category of courses under the core curriculum.

Learning Outcomes:

1. Students will develop critical thinking skills, communication skills, and empirical and quantitative skills.
2. Students will understand and apply the scientific method to novel questions in order to develop a strategy to answer those questions.
3. Students will understand the role of the scientific method in scientific discovery.
4. Students will summarize the laws of matter and energy as they apply to living organisms.
5. Students will classify the organic and inorganic components that make up living organisms.
6. Students will explain the role of water in the fitness of the environment.
7. Students will demonstrate an understanding of the differences between eukaryotic and prokaryotic cells.
8. Students will identify components of plant and animal cells, including the structure and function of cell organelles.
9. Students will understand cellular membranes as they relate to transportation of molecules into and out of cells.
10. Students will understand the energy transforming principles of photosynthesis and cellular respiration.
11. Students will understand the cellular cycles of mitosis and meiosis.
12. Students will understand the basic principles of gene to protein.
13. Students will apply the principles of Mendelian genetics to solution of basic genetics problems to better understand inheritance patterns and be able to discuss how they can contribute to the solution of medical and social dilemmas.
14. Students will be able to discuss recent advances in modern genetics considering the medical, social, and economic impacts of the new findings.

Course Content

5 Regular Exams – (100 points each)

- Each exam will have 35-40 multiple choice questions worth 2 pts each. The remaining points of the exam will be short-answer essays and fill-in-the blanks.
- Exams **will not be scaled**, however you will be informed of the class average on that exam and thus it will give you an idea of your standing in the class (see scaling policy on FINAL GRADES below).
- If you feel that your exam was graded incorrectly, I would be happy to discuss it with you **within 1 week of taking the exam**.

1 Cumulative Final Exam – (125 points)

- The format of the final exam has yet to be determined.

13 Weekly Quizzes – (10 points total for each)

15 SmartBook Assignments – (10 points each)

- On-line homework assignments are a way to guide you through sections of your book and help you to assess whether or not you are understanding the material. These will be completed as per the deadlines listed on the schedule – deadlines are strict so plan ahead to make sure you complete these in time. Only 15 of the 17 will be counted so you can miss 2 without it affecting your grade. If you complete all of them, you will earn the other two as bonus points in this section of the grade.

In-Class Activities –

- There will be hands-on activities and pop quizzes throughout the semester that will help demonstrate concepts, practice word problems, and reinforce concepts that you will be responsible for completing in class.
- These in-class assignments should help assess where you are in terms of the concepts being taught. If you struggle with these activities, this should help identify where you need to focus your studying or where you need to ask for more help.

POLICIES:

Expectations: In college, it is expected that for every credit hour you spend in class, you spend 3 hours working on that material at home. Thus, in the class, it is expected that in addition to coming to class every Monday, Wednesday, and Friday that you also spend 9 hours a week on outside school pertaining to this class. This of course takes time-management skills. Please take this into consideration when planning your semester activities.

Dos & Do Nots

- Do come to class regularly and on time – it affects your grade, not because of points assessed, but because of understanding the material.
- Do take notes on the power point print outs of my lectures
- Do ask questions in class
- Do seek out help from me and your peers

- Do NOT have your cell phone out during class unless asked to do so.
- Do NOT check social media sites on your laptop during my lecture feigning that you are taking notes
- Do NOT come in late or miss class and ask me to be caught up
- Do NOT leave early without talking to me prior to class beginning

ATTENDANCE POLICY:

Lecture Attendance: Attendance will be taken daily however you will not be assessed points. However, keep in mind that attendance may be used at the end of the semester as an additional evaluation of your performance (i.e. if your grade is borderline and you have attended class regularly I will be more inclined to bump you up to the next grade). If you must miss a class, you are responsible for obtaining what you missed (announcements, class notes, handouts, etc...) from a fellow classmate, not me. In which case make a buddy:_____

Exam Day Attendance: Mandatory – If you arrive late, you have only until the end of the period to take it. So, my advice: show up early.

Random Mandatory Attendance: Occasionally there will be a topic, guest speaker, or an activity that will occur in class. These days will be mandatory. You will have prior warning to when these days occur.

MAKE UP POLICIES:

Assignments Because these are on-line and because they will be open and available for more than one day, you should have ample opportunity to complete these. Thus – there are no make-ups. If there is an emergency that is considered a university-excused reason that prevents you from taking a quiz or completing an assignment in the allotted timeframe, you must contact me within one day of the due date. If I do not hear from you within that time period, you have forfeited the right to make up the assignment or quiz.

Quizzes & Exams:

- You may make up an exam_only if
 - you contact me within one day of the scheduled exam
 - your absence is one approved by TAMUSA policies (illness, death in the family, other immediate-family emergencies). Documentation will be required.
 - Again – if I do not hear from you within 24 hours of the scheduled exam, you have forfeited the right to make up the exam.
 - For quizzes, you may only take the individual portion and it will count twice.

In-class activities – as mentioned above, any hands-on activities we conduct in class cannot be made up as they require your presence and will usually be conducted as a group.

Grading

EXAMS = 60% of your grade (take total points earned / total points available X 0.60) = A

QUIZZES = 20% of your grade (take total points earned / total points available X 0.20) = B

ASSIGNMENTS = 20% of your grade (take total points earned / total points available X 0.20) = C

(A + B + C) x 100 = FINAL COURSE PERCENTAGE

Final Grade:

A = 90-100%.....I will *consider* scaling up if you earn an 89.7%, but I will **NOT** scale up for an 89.49% or less

B = 80-89%..... I will *consider* scaling up if you earn an 79.7%, but I will **NOT** scale up for an 79.49% or less

C = 70-79%..... I will *consider* scaling up if you earn an 69.7%, but I will **NOT** scale up for an 69.49% or less

D = 60-69%..... I will *consider* scaling up if you earn an 59.7%, but I will **NOT** scale up for an 59.49% or less

F = below 60%

IMPORTANT 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.

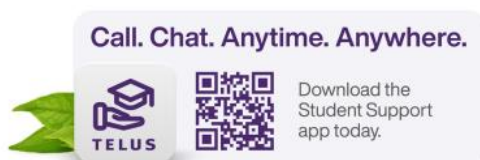
Academic Learning Center: The Academic Learning Center provides free course-based tutoring to all currently enrolled students at Texas A&M University-San Antonio. Students wishing to work with a tutor can make appointments through the Brainfuse online tutoring platform. Brainfuse can be accessed in the *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.



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 criteria: 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>).

No Use of Generative AI Permitted

Biol 1306 assumes that all work submitted by students will be generated by the students themselves, working individually or in groups. Students should not have another person/entity do the writing of any portion of an assignment for them, which includes hiring a person or a

company to write assignments and/or using artificial intelligence (AI) tools like ChatGPT. Use of any AI-generated content in this course qualifies as academic dishonesty and violates Texas A&M-San Antonio's standards of academic integrity.

Important Dates: Fall 2025 Regular 16-Week Session

August 25	First day of class
September 1	Labor Day Holiday – No classes
September 10	Census Date
November 14	Last day to drop with an automatic “W”
November 25	Last day to withdraw from the University
November 26	Study Day – No classes
November 27-29	Thanksgiving Holiday – No classes
December 4	Last day of classes
December 5	Study Day – No classes
December 6-12	Final exams
December 16	Commencement

The complete academic calendar is available online:

<https://www.tamusa.edu/academics/academic-calendar/index.html>

Week	Dates	Lecture Topics/Readings (see BB/Connect online for assignments)
1	T: 8/26	Syllabus / CH1 Intro
	R: 8/28	CH1 Intro /Ch 2 Atoms, Molecules, & Water
2	M: 9/1	Labor Day - No Classes
	T: 9/2	Ch 2 Atoms, Molecules, & Water/ Ch 3 Organic Molecules
	R: 9/4	Ch 3 Organic Molecules
3	T: 9/9	Ch 3 Organic Molecules
	R: 9/11	Exam 1 review/ Ch 4 General features of cells

4	T: 9/16	Exam 1 Ch1-3
	R: 9/18	Ch 4 General features of cells
5	T: 9/23	Ch26 Nonliving particles/Ch 5 Membrane structure
	R: 9/25	Ch 5 Membrane structure /Exam 2 Review
6	T: 9/30	Exam 2 Ch 4, 26, 5, & 9
	R: 10/2	Ch 6 Energy, Enzymes, & Metabolism
7	T: 10/7	Ch 7 Cell Respiration
	R: 10/9	Ch 7 Cell resp./ch8 Photosynthesis
8	T: 10/14	Ch 8 Photosynthesis
	R:10/16	Exam 3 review /Ch 10 Cell Division
9	T: 10/21	Exam 3 Ch 6-8
	R: 10/23	Ch 10 Cell Division / Ch 11 Meiosis
10	T: 10/28	Ch 12 Genetics
	W: 10/30	Ch 12 Genetics
11	T: 11/4	Ch 13 Chromosomal basis of Inheritance
	R: 11/6	Exam 4 review/ Ch 14 Nucleic Acid structure, DNA, & Chromosomes
12	T: 11/11	Exam 4 Ch 10-13
	R: 11/13	Ch 14 Nucleic Acid structure, DNA, & Chromosomes /Ch 15 Mutation, DNA Repair, & Cancer
13	T: 11/18	Ch 15 Mutation, DNA Repair, & Cancer
	R: 11/20	Ch 15 Mutation, DNA Repair, & Cancer / Ch 16 Gene regulation
14	T: 11/25	NO CLASS THANKSGIVING
	R: 11/27	
15	T: 12/2	Ch 16 Gene regulation/ Review exam 5

	R: 12/4	Exam 5 Ch 14-16
	F: 12/5	NO CLASS READING DAY
16	R: 12/11	Final Exam 2-3:50pm

