

Texas A&M University – San Antonio
College of Arts & Sciences, Biology
BIOL 1308: Life Sciences I (Non-Majors) Lecture
Spring 2025 Syllabus

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Student Conference Hours: By appointment email/zoom

A. Class Meeting Times and Location:

Section:002

Lecture Hours: MWF 9:00-9:50 A.M.

Lecture Location: STEM 143

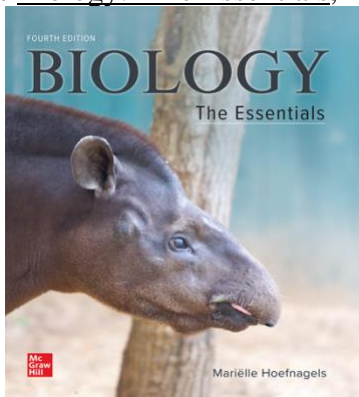
B. COURSE DESCRIPTION

This course provides an overview of the diversity of life, the evolutionary relationships among major groups of organisms, and the structural/functional characteristics of these organisms. Topics emphasized will include the study of life at the organismal, population, and community level including form, function, reproduction, taxonomy, systematics, ecology and evolutionary history of biodiversity. This course is designed for students not majoring in science fields. Biology majors taking this course must be concurrently registered for BIOL 1107. This course meets the standards for the Life and Physical Sciences category of courses under the core curriculum.

C. REQUIRED TEXTBOOK

You will need to purchase this book

Ebook: [Biology: The Essentials](#), 4th Edition, Hoefnagels;



Connect student registration that your homework and quizzes can be found in Blackboard when available.

D. LEARNING OBJECTIVES

Students will be able to have a strong grasp of the scientific method – specifically to:

- Ask scientific questions of their world
- Demonstrate the ability to read and understand scientific literature written for the educated lay reader
- Critique and analyze claims of others in a scientific context
- Construct reasonable hypotheses
- Formulate and defend alternative explanations and models on the basis of evidence
- Communicate effectively in oral and written forms
- Demonstrate awareness of specific technology that is used to carry out biological investigations
- Use computers for data analysis, literature searches and retrieval of data from reliable databases

Students will be able to understand the science of biology, both its past and present impacts on society by being able to:

- Analyze how progress in biology depends heavily on the political, social, economic and cultural influences occurring within a society at any given time
- Discuss historical changes in biological theories over time
- Recognize the integration of mathematics, physics, chemistry, and geology into the study of biology
- Understand the impact of science and technology on the global society
- Discuss and identify ethical issues that new technology raises
- Demonstrate the application of biological concepts to:
 - Personal issues
 - Society
 - Economics
 - Technology
 - Ethical issues

TOPICS COVERED:

1. Nature of Science
2. Characteristics of Life
3. Chemistry of Life
 - a. Role of water
 - b. Carbon and the Molecular Diversity of Life
 - c. The structure and function of macromolecules (sugars, lipids, proteins, nucleic acids)

4. The Cell Theory
 - a. Prokaryotic vs. Eukaryotic cells
 - b. Cellular organization
 - c. Cellular membrane structure and function
5. Cellular Energetics
 - a. Cellular respiration
 - b. Photosynthesis
 - c. Role of enzymes
6. Cell Cycle: Mitosis and Meiosis
7. Genetics
 - a. Introduction to Mendelian Genetics
 - b. Structure and function of DNA

E. Grading and Methods of Assessment:

The student will be able to answer correctly at least 70% of the questions on scheduled exams, homework, and quizzes. Lecture exams and quizzes can consist of true or false, multiple choice, fill in the blank, matching, short essay, or drawing. All assessments are based on 100 points.

The final grade will be determined as follows:

4 out of 5 Lecture Exams	50%
10 out of 11 Virtual Labs	15%
10 out of 11 Quizzes	15%
Hands-On Activities	10%
Attendance	10%

**** HINTS FOR SUCCESS.** Complete assignments and submit them in on time. Do not wait until the night before to study for an exam or complete an assignment. ******

Grading Scale:

- A = 90-100
- B = 80-89
- C = 70-79
- D = 60-69
- F = Below 60

Lecture Exams:

1. You will be given five (5) Lecture Exams. At the end of the semester, the lowest score on one (1) exam out of the four will be dropped.
2. Your Final Exam will be only the content from chapters 9, 10 an 11. It will not be cumulative.
3. Your Lecture Exams will consist of three (3) short answer questions worth fifteen (15)

points, and 45 multiple choice, true/false, and/or matching questions worth two (2) points each. So, you can make 105/100 points on each exam. Exams must be taken when scheduled. If you miss an exam, it may be counted as your dropped exam or you may take the Comprehensive Makeup Exam at the end of the semester to replace the zero.

4. The Comprehensive Makeup Exam can only be used to replace a zero for a lecture exam grade.

Lecture Quizzes (online):

1. You will complete a series of quizzes covering the material from the chapters you will study this semester. All quizzes will be available beginning the first day after each Exam with at least a week to complete; however each one has a due date corresponding with the exam schedule.
2. Each quiz is **timed** with **10 questions** and **1 attempt**. Therefore, it is recommended to complete the corresponding homework assignments first, then take the quiz. The quizzes will cover the main ideas for each exam; therefore, these are a good exam study tool.
3. **One (1)** out of the **eleven (11)** online quizzes will be dropped and the remaining **ten (10)** quizzes will be averaged together for this portion of your course grade.
4. Quizzes cannot be made up.

Virtual Labs (10%): The Connect software provided as part of your e-textbook have a variety of simulated lab activities intended to recreate assignments that would be done in a lab section. These may take between 10 and 30 minutes depending on how quickly you follow the instructions. A number of these virtual labs will be assigned with each unit to assist with learning the concepts from those chapters. Each lab is a guaranteed 100% as long as it is completed on time and you have unlimited attempts before the due date.

- **The lowest virtual lab (1) will be dropped.**
- These assignments are **due by 11:59pm the day of the exam they are related to.** I do not grant extensions on these since you will have several weeks to complete them.

Hands-On Activities:

1. Throughout the course of the semester, we will be conducting some hands-on experiments or demonstrations. These may occur in-class or you may be asked to do some cool stuff outside of class. Details will come as we go through the semester but you can expect to have at least one of these assignments every other week. There will be an in-class assignment that will be graded as part of each experiment/demonstration. If it is an in-class activity, you must be present to receive credit for it.

F. ATTENDANCE

Attendance/Participation:

1. To be successful in college, you must attend lecture. I will take attendance for university purposes and may use this information at the end of the semester for deciding borderline grades. Also, attendance is worth 10% of your grade (100 Points). Therefore, it is in your best interest to be present. However, life happens and if you need to miss class, please

notify me and get with a classmate to obtain missed materials. I am not responsible for material you miss.

2. You are allowed three absences with no penalty to the attendance grade in the class. After three absences, every subsequent absence will drop your attendance/participation grade by 10 points.
3. You are encouraged to participate in class and ask questions over any material you do not understand. Be respectful of each other and myself, as points can be deducted from the participation grade due to disrespectful behavior.
4. Being late by more than 15 minutes will count as an absence.

G. STUDENT OBLIGATIONS

1. Regular and punctual attendance in all classes and laboratories, day and evening, is required. Students who are absent for any reason should always consult with their instructors prior to absence (if possible). Both tardiness and early departure from class may be considered forms of absenteeism. A student may be dropped if there are excessive absences. Review the college policies on attendance and excessive absences as stated in the college catalog.
2. A student absent for the equivalence of **2 weeks** of classes may be automatically dropped from the course with a "W".
3. The instructor will only withdraw students for nonattendance until the official Withdrawal Date. Students who have not withdrawn themselves or requested withdrawal by the instructor and stop attending class after this date will receive a performance grade (A/B/C/D/F).
4. It is not the instructor's responsibility to provide a student with any notes, assignments, or reviews missed due to student absence. All materials may be obtained by contacting the instructor during office hours, getting with a classmate, and/or downloaded from your Blackboard course.
5. **Email Etiquette:** Professional email etiquette is a requirement when communicating with me online. A proper greeting (e.g. Mr. Rodriguez, Hello Mr. Rodriguez, etc.) with a coherent message needs to be included with every email sent to me. **Emails that do not satisfy these conditions will be ignored.**
6. **Assignments:** All chapter homework assignments and quizzes are due Sunday by 11:59pm on the Blackboard website. You are encouraged to get ahead on the homework assignments and quizzes. Once the deadline has passed, your score will be zero with no make-up opportunity if it has not been completed, unless your instructor states differently. Blackboard will have a calendar displaying when all assignments and quizzes are due. It is the student's responsibility to frequently check this calendar. Finally, it is up to the student to have a stable internet/browser connection when conducting online assignments.
7. **Grades:** All grades are final at the end of the semester. If there is an issue, please make an appointment with me and be prepared to defend your case (i.e. bring ALL assignments, etc.).

8. **Studying:** 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, you also spend 9 hours a week on outside work pertaining to this class. This of course takes time-management skills. Please take this into consideration when planning your semester activities.
9. **Laptops and Cell Phones:** If you are going to use your laptop for taking notes, please sit in the back row as research has shown computers disrupt others around and behind you. If I catch you doing something other than taking notes on your computer, you will be asked to leave. ALL cell phones must be placed on silent or off and put away during class time. If you are caught using a cell phone excessively then you will be marked absent and possibly asked to leave the class. Please inform me prior to class if you are expecting an emergency notification.

Tentative Lecture Schedule

Week Of:	Topic:	Chapters:	Assignments:	Due Date:
			-	-
Jan.20th	Introduction / Syllabus Scientific Study of Life	1	Chapter 1 HW Chapter 1 Quiz	Sun., Jan 26 th @ 11:59 pm
Jan. 27th	The Chemistry of Life	2	Chapter 2 HW Chapter 2 Quiz	Sun., Feb 2 nd @ 11:59 pm
Feb. 3rd	Lecture Exam1 Feb 3 / Cells	3	-	-
Feb. 10th	Cells / The Energy of Life	3/4	Chapter 3 HW Chapter 3 Quiz	Sun., Feb. 16 th @ 11:59pm
Feb. 17th	The Energy of Life	4	Chapter 4 HW Chapter 4 Quiz	Sun. Feb. 23 rd @ 11:59 pm
Feb. 24th	Lecture Exam 2 Feb 15 / Photosynthesis	5	Chapter 5 HW Chapter 5 Quiz	Sun. Mar. 2 nd @ 11:59 pm
Mar. 3rd	Photosynthesis / Respiration and Fermentation	5/6	Chapter 6 HW Chapter 6 Quiz	Sun. Mar. 9 th @ 11:59 pm
Spring Break March 10-15				
Mar. 17th	Lecture Exam 3 Mar 17 / DNA Structure and Gene Function	7	-	-
Mar. 24th	DNA Structure and Gene Function / DNA Replication, Binary Fission, and Mitosis	7/8	Chapter 7 HW Chapter 7 Quiz	Sun Mar. 30 th @ 11:59 pm
Mar. 31st	DNA Replication, Binary Fission, and Mitosis	8	Chapter 8 HW Chapter 8 Quiz	Sun., Apr. 6 th @ 11:59 pm
Apr. 7th	Lecture Exam 4 Apr 7 / Sexual Reproduction and Meiosis	9	Chapter 9 HW Chapter 9 Quiz	Sun., Apr.13 th @ 11:59 pm
Apr. 14th	Patterns of Inheritance	10	- Chapter 10 HW Chapter 10 Quiz	Mon., Apr. 20 th @ 11:59 pm
Apr. 21st	Patterns of Inheritance	10/11	Chapter 11 HW Chapter 11 Quiz	Sun Apr. 27 th @ 11:59 pm
Apr.28th	Hands on / Lecture 5 Exam Apr 28			
Comprehensive Makeup Exam: TBA at the Testing Center				
Reading Days – Monday-Tuesday (May 5th and 6th) – No Class!				

Week Of:	Topic:	Chapters:	Assignments:	Due Date:
TBA - Lecture Exam 5				

UNIVERSITY INFORMATION

IMPORTANT POLICIES AND RESOURCES

Academic Accommodations for Persons 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, please contact Disability Support Services in the Central Academic Building, Suite 210, or at (210) 784-1335 or visit <https://www.tamusa.edu/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 and their instructors 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/or 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 Modular C, Room 166 (Rear entrance). All mental health services provided by the SCC are free and confidential (as the law allows). The Student Counseling Center provides brief individual and group therapy, crisis intervention, consultation, case management, and prevention services.

Crisis support is available 24/7 by calling the SCC at 210-784-1331 (after-hours select option '2'). For more information and self-help resources, please visit www.tamusa.edu/studentcounseling

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/campus-information/safety/university-police-department/documents/emergency-operations-plan.pdf> and <https://www.tamusa.edu/about->

[us/campus-information/safety/university-police-department/documents/emergency-action-plan.pdf](https://www.tamusa.edu/campus-information/safety/university-police-department/documents/emergency-action-plan.pdf)

Download the SafeZone App 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 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.

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://bit.ly/WLDCCenter>.

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. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources they may possess.

Military Affairs: Veterans and active-duty military personnel are welcomed and encouraged to communicate, in advance if possible, and 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.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 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 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, gender expression, or pregnancy/parenting status. 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 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, 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 or sexual violence, or other related 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 reasonable accommodations to pregnant students that would be provided to a student with a temporary medical condition and 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.

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, or veteran status in accordance with applicable federal and state laws.
3. A student has the right to personal privacy except as otherwise provided by law, and this will be observed by students and University authorities alike.
4. Each student subject to disciplinary action arising from violations of university student rules shall be assured a fundamentally fair process.

Students' Responsibilities

1. A student has the responsibility to respect the rights and property of others, including other students, the faculty and administration.
2. A student has the responsibility to be fully acquainted with the published University Student Rules found in the Student Handbook, Student Code of Conduct, on our website, University Catalog and to comply with them, as well as 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 an environment for learning.
5. A student has the responsibility to check their university email for any updates or official university notification.

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. 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](#).

No Use of Generative AI Permitted

This class 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.

Key Dates

January 21	First day of classes
April 21	Last day to drop with an automatic “W”
April 28	Last day to drop a course or withdraw from the University
May 6	Reading Days – No Class
May 7-13	Final exams

The complete academic calendar is available online:
<https://www.tamusa.edu/provost/faculty/faculty-resources/fallspringsummercalendars/fall-2021.html>