GENERAL BIOLOGY I

Biology 1306 (001/002) Fall 2025

Instructor: Jessica L. Coleman, MS.

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Office hours: MWF 10 am - 12 pm, or by appointment

Course Objectives: Biology 1306 is the first of two courses designed to provide a thorough introduction to biological science. The goal of the course is that students learn essential facts about the natural world and understand the significance of these facts within the context of major biological concepts.

Student Learning Outcomes: After this class, you should be able to...

- Define biology and evolution
- Comprehend and apply the scientific process
- Describe a cell, its parts, how it uses energy (respiration and photosynthesis), its' processes of replication (mitosis and meiosis), and the relevance of those things to patterns of inheritance (genetics)
- Understand the significance of biology to you and your life
- Apply the knowledge you have acquired to make educated decisions as a member of society

Required Textbook and Other Materials:

- 1. Biology 2e Open Stax (Free Textbook)
 - a. https://openstax.org/details/books/biology-2e/?Book%20details
- Echo360 (Formerly Turning Technology) NXT or QT2 Student Response device (plus Echo360 account and license): available in the bookstore or on the Turning Technologies website. https://account.turningtechnologies.com/account/

Grading:

Unit Exams (3)	-40%
Comprehensive Final Exam (1)	
Group Infographic Assignment (1)	-15%
Chapter Quizzes (17)	-15%
Participation (Attendance and clicker)	-10%

Letter grades will be assigned according to the following scale:

A = above 89.5
$$B = 79.5 - 89.49$$
 $C = 69.5 - 79.49$ $D = 59.5 - 69.49$ $F = Below 59.5$

All your course grades will be in Canvas, so you will be able to view your current course grade at any time. Please be aware that I cannot give you EXTRA CREDIT or WORK at the end of the semester. Your average shown in Canvas will determine your final grade in the course. At the end of the semester, grades will be calculated in Canvas following the syllabus. If your average is **within 0.5 points** of the next letter grade, I will automatically round it up (see the grade scale above). The only other adjustment that will be made is if the final percentage is WITHIN ONE POINT of the next letter grade (and NO more), and the student has missed **THREE OR FEWER LECTURES, TWO or FEWER WEEKLY QUIZZES,** and has a

CLASS PARTICIPATION GRADE OF 80% or HIGHER. If you meet these criteria, then I will round up to the next letter grade. (Mitigating circumstances will be considered at the discretion of the instructor.)

Exam policy: There will be four exams during the semester. The first three are regular unit exams, consisting of approximately 50 questions (each worth 2 points), while the fourth exam will be a comprehensive final comprised of roughly 100 questions (each worth 1.5 points). All exams will be multiple-choice questions. The comprehensive exam will contain new and old content (terminology seen on all old exams). **Most questions** will be taken from **the lecture content.** All exams will be taken in person and will **require the use of the clicker device (NXT or QT2 models)**. Be warned that I typically **DO NOT curve exams, so don't bother to ask!**

Make-up Exams: If you are unable to take an exam when scheduled due to unforeseen illnesses, deaths in the family, or other traumatic events, contact me within 24 hours of the event to schedule a make-up exam. Please provide **documentation** (letters from family are NOT acceptable) of the events that may conflict with exam dates. I will work with you to schedule a makeup exam.

If you are unable to take an exam as scheduled for some sort of non-emergency issue, then you must let me know well in **ADVANCE**. Students who fail to make timely arrangements will most likely receive a grade of "0" for the exam missed.

Quizzes: There will be <u>at least</u> 15 quizzes during the semester (potentially as many as 20). There will be individual and group quizzes this semester. There will be both in-class and online (posted on CANVAS) quizzes for you to complete during the semester. For each quiz (both individual and group), you will have 10-15 minutes to complete. For those quizzes taken during class time, if you arrive at class after a quiz has started, you will only have the time remaining on the quiz clock to complete your quiz. For quizzes you take online, you will have points deducted for going over the time allotted for each quiz. Each quiz will be worth 10 points. <u>There will be NO make-up quizzes</u>.

For online quizzes, please ensure you are using a computer with a reliable internet connection. If you are knocked offline while taking a quiz, I may need to clear the quiz before you can make another attempt. If this happens, please email me as soon as possible, and I will clear your attempt. Keep in mind that if you start the quiz with only a few minutes left before it closes, I will not be able to clear your response, and you will get a "0" for the attempt.

Group Projects: You will be assigned to a group of five this semester to complete one project. This assignment will be worth a total of 100 possible points. For the assignment, you will have to create an infographic on a particular topic (list to be provided) and submit it for a group grade. Your final score on the group project will also include a team assessment that you must complete on your team members. Grades on these group projects may vary depending on how active you are in the planning, creating, and submission of the final projects. More details on this assignment will be posted on CANVAS and will be discussed in class within the first week of the semester.

CANVAS: Students should log onto **Canvas** ASAP and carefully read all announcements. Canvas and student email should be checked **DAILY** for new announcements or messages. On Canvas you will find lecture outlines, reviews for exams, videos, discussion board posts, and much more that will be very helpful for you as you take this course. You will also have quizzes

posted throughout the semester under the module sections (labeled Quizzes). Announcements will be posted when these quizzes are active for you to take. Another helpful tool is that all course grades will be in Canvas, so students will be able to view and calculate current course grades at any time.

Echo360 (formerly Turning Technology) Clickers: For this course, you will need to purchase an NXT or QT2 clicker AND create an Echo 360 (Turning Account) with a subscription from Echo 360. This clicker will be used to answer questions during the semester and for taking exams. During the semester you will be responsible for bringing to class the Turning Technologies Response Pad (NXT or QT2 Clicker) to answer questions during the lecture, as well as to take attendance for each class period. At the end of the semester, student responses will be used to assign clicker points (15pts) at the end of the semester. These clickers are also required to take all the exams during the semester; without the right clicker, you will not be able to complete the exams.

Visit: https://account.turningtechnologies.com/account/ to create an account. Make sure to use your https://account.turningtechnologies.com/account/ to create an account. Make sure to use your https://account.turningtechnologies.com/account/ to create an account. Make sure to use your https://account.turningtechnologies.com/account/ to create an account. Make sure to use your https://account.turningtechnologies.com/account/ to create an account. Make sure to use your https://account.turningtechnologies.com/account/ to create this account. The link is also posted under the Modules tab on Canvas. The NXT or QT2 response systems MUST be used to take the exams. During regular class time, if you forget your clicker, you can download the app (Point Solutions) to use on any Android or iPhone to use as the clicker.

It is your responsibility to remember to bring your clicker to every class.

You will need to make sure to purchase a response pad within the first few days of class.

Attendance/Participation: Attendance and participation are essential to success in this class. If you miss a class, it is your responsibility to contact another student (not the instructor) to get notes and other announcements made during class. Your attendance will be recorded by answering the clicker questions during each class period. For attempting to answer your questions, you will receive points for participating, and at the end of the semester, you will earn participation points. This will be calculated based on the number of clicker questions you were there to attempt.

Academic Integrity: Students should be aware that absolute academic integrity is expected of every student in all undertakings at The University of Texas at Tyler. Failure to comply can result in strong university-imposed penalties. Be forewarned that possession of anything containing course content will be considered cheating, whether you actually refer to it during the exam. Also, be aware that TALKING during an EXAM to anyone other than the instructor or proctor will automatically be considered cheating. It does not matter what you were talking about. This includes the use of cell phones (even if they call YOU) or any other electronic device that could be used to record test material. Violation of this policy will be considered cheating and treated accordingly. Penalties for cheating include anything from a zero on the exam or quiz during which the cheating occurred, up to an F for the course in question, at the discretion of the instructor.

Use of an AI Generator such as ChatGPT, iA Writer, MidJourney, DALL-E, etc. is **explicitly prohibited** unless otherwise noted by the instructor. The information derived from these tools is based on previously published materials. Therefore, using these tools without proper citation constitutes plagiarism. Additionally, be aware that the information derived from these tools is often inaccurate or incomplete. **It is imperative that all work submitted should be your own**.

Any assignment that is found to have been plagiarized or to have used unauthorized AI tools may receive a zero and/or be reported for academic misconduct.

Supplemental Instruction (SI): Group study sessions are offered several times per week, led by specially trained students. Students that participate in these sessions regularly **score significantly higher on exams**, so attend whenever possible. Session schedules are posted on Canvas and will be announced regularly in a class by your SI Leader.

UNIVERSITY POLICIES AND INFORMATION

Withdrawing from Class: Students may withdraw (drop) from this course using the Withdrawal Portal. Withdrawing (dropping) this course can impact your Financial Aid, Scholarships, Veteran Benefits, Exemptions, Waivers, International Student Status, housing, and degree progress. Please speak with your instructors, consider your options, speak with your advisor, and visit the One-Stop Service Center (STE 230) or email enroll@uttyler.edu to get a complete review of your student account and the possible impacts to withdrawing. We want you to make an informed decision. UT Tyler faculty and staff are here for you and often can provide additional support options or assistance. Make sure to carefully read the implications for withdrawing from a course and the instructions on using the Withdrawal portal.

Texas law prohibits students from dropping more than six courses during their entire undergraduate career*. The six courses dropped include those from other 2-year or 4-year Texas public colleges and universities. Consider the impact withdrawing from this class has on your academic progress and other areas, such as financial implications. We encourage you to consult your advisor(s) and Enrollment Services for additional guidance. CAUTION #1: Withdrawing before census day does not mean you get a full refund. Please see the Tuition and Fee Refund Schedule. CAUTION #2: All international students must check with the Office of International Programs before withdrawing. All international students are required to enroll full-time for fall and spring terms. CAUTION #3: All UT Tyler Athletes must check with the Athletic Academic Coordinator before withdrawing from a course. CAUTION #4: All veterans or military-affiliated students should consult with the Military and Veterans Success Center.

* Students who began college for the first time before 2007 are exempt from this law.

Artificial Intelligence Statement: UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy. Refer to the About This Course section of the UT Tyler Syllabus Module for specific information on appropriate use of AI in your course(s).

Final Exam Policy: Final examinations are administered as scheduled. If unusual circumstances require that special arrangements be made for an individual student or class, the Dean of the appropriate college, after consultation with the faculty member involved, may authorize an exception to the schedule. Faculty members must maintain student final examination papers for a minimum of three months following the examination date.

Incomplete Grade Policy: If a student, because of extenuating circumstances, is unable to complete all of the requirements for a course by the end of the semester, then the instructor may recommend an Incomplete (I) for the course. The "I" may be assigned in place of a grade only when all of the following conditions are met: (a) the student has been making satisfactory progress in the course; (b) the student is unable to complete all coursework or final exam due to unusual circumstances that are beyond personal control and are acceptable to the instructor, and (c) the student presents these reasons before the time that the final grade roster is due. The semester credit hours for an Incomplete will not be used to calculate the grade point average.

The student and the instructor must submit an Incomplete Form detailing the work required and the time by which the work must be completed to their respective department chair or college dean for approval. The time limit established must not exceed one year. Should the student fail to meet all of the work for the course within the time limit, then the instructor may assign zeros to the unfinished work, compute the course average for the student, and assign the appropriate grade. If a grade has yet to be assigned within one year, then the Incomplete will be changed to an F, or NC. If the course was initially taken under the CR/NC grading basis, this may adversely affect the student's academic standing.

Grade Appeal Policy: Disputes regarding grades must be initiated within sixty (60) days from the date of receiving the final course grade by filing a Grade Appeal Form with the instructor who assigned the grade. A grade appeal should be used when the student thinks the final course grade awarded does not reflect the grades earned on assessments or follow the grading scale as documented in the syllabus. The student should provide the rationale for the grade appeal and attach supporting document about the grades earned. The form should be sent via email to the faculty member who assigned the grade. The faculty member reviews the rationale and supporting documentation and completes the instruction section of the form. The instructor should return the form to the student, even if a grade change is made at this level. If the student is not satisfied with the decision, the student may appeal in writing to the Chairperson of the department from which the grade was issued. In situations where there is an allegation of capricious grading, discrimination, or unlawful actions, appeals may go beyond the Chairperson to the Dean or the Dean's designee of the college from which the grade was issued, with that decision being final. The Grade Appeal form is found in the Registrar's Form Library.

NOTE: The Grade Appeal Form is different from the Application for Appeal form submitted to the Student Appeals Committee, which does not rule on grade disputes as described in this policy.

Disability/Accessibility Services: In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA), the University of Texas at Tyler offers accommodations to students with learning, physical, and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or a history of modifications or accommodations in a previous educational environment, you are encouraged to visit https://hood.accessiblelearning.com/UTTyler/ and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with the Assistant Director Student Accessibility and

Resources/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at https://www.uttyler.edu/disability-services, the SAR office located in the Robert Muntz Library, LIB 460, email saroffice@uttyler.edu, or call 903.566.7079."

Military Affiliated Students: UT Tyler honors the service and sacrifices of our military-affiliated students. If you are a student who is a veteran, on active duty, in the reserves or National Guard, or a military spouse or dependent, please stay in contact with your faculty member if any aspect of your present or prior service or family situation makes it difficult for you to fulfill the requirements of a course or creates disruption in your academic progress. It is important to make your faculty member aware of any complications as far in advance as possible. Your faculty member is willing to work with you and, if needed, put you in contact with university staff who are trained to assist you. The Military and Veterans Success Center (MVSC) has campus resources for military-affiliated students. The MVSC can be reached at MVSC@uttyler.edu or via phone at 903.565.5972.

Students on an F-1 Visa: To remain in compliance with Federal Regulations requirements you must do the following:

- Traditional face-to-face classes: Attend classes on the regular meeting days/times.
- Hybrid Classes: Attend all face-to-face classes convened by the instructor according to the schedule set for your specific course.
- Online course: Only one online course can count toward your full-time enrollment. Students are expected to be fully engaged and meet all requirements for the online course.

Academic Honesty and Academic Misconduct: The UT Tyler community comes together to pledge that "Honor and integrity will not allow me to lie, cheat, or steal, nor to accept the actions of those who do." Therefore, we enforce the <u>Student Conduct and Discipline policy</u> in the Student Manual Of Operating Procedures (Section 8).

FERPA: UT Tyler follows the Family Educational Rights and Privacy Act (FERPA) as noted in <u>University Policy 5.2.3</u>. The course instructor will follow all requirements to protect your confidential information.

Absence for Official University Events or Activities: This course follows the practices related to Excused Absences for University Events or Activities as noted in the Catalog.

Absence for Religious Holidays: This course follows the practices related to <u>Excused Absences</u> <u>for Religious Holy Days as noted in the Catalog</u>.

Absence for Pregnant Students: This course follows the requirements of Texas Laws SB 412, SB 459, SB 597/HB 1361 to meet the needs of pregnant and parenting students. Part of the supports afforded pregnant students includes excused absences. Faculty who are informed by a student of needing this support should make a referral to the Parenting Student Liaison. NOTE: Students must work with the Parenting Student Liaison in order to receive these supports. Students should reach out to the Parenting Student Liaison at parents@uttyler.edu and also complete the <u>Pregnant and Parenting Self-Reporting Form</u>.

Campus Carry: We respect the right and privacy of students who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a

handgun secure and concealed. More information is available at http://www.uttyler.edu/about/campus-carry/index.php.

Student Resources:

Resources to assist you in this course

- <u>UT Tyler Student Accessibility and Resource (SAR) Office (provides needed accommodations to students with document needs related to access and learning)</u>
- UT Tyler Writing Center
- The Mathematics Learning Center
- UT Tyler PASS Tutoring Center
- <u>UT Tyler Supplemental Instruction</u>
- <u>Upswing (24/7 online tutoring)</u> covers nearly all undergraduate course areas Links to an external site.
- Robert Muntz Library . and Library Liaison
- <u>Canvas 101</u> (learn to use Canvas, proctoring, Unicheck, and other software)
- LIB 422 -- Computer Lab where students can take a proctored exam
- The Career Success Center
- <u>UT Tyler Testing Center</u>
- Office of Research & Scholarship Design and Data Analysis Lab

Resources available to UT Tyler Students

- <u>UT Tyler Counseling Center (available to all students)</u>
- My SSP App (24/7 access to Student Support Program counseling through phone or chat and online wellness resources available in a variety of languages)
- Student Assistance and Advocacy Center
- Military and Veterans Success Center (supports for all of our military-affiliated students)
- UT Tyler Patriot Food Pantry
- UT Tyler Financial Aid and Scholarships
- UT Tyler Registrar's Office
- Office of International Programs
- <u>Title IX Reporting</u>
- Patriots Engage (available to all students. Get engaged at UT Tyler.)

I RESERVE THE RIGHT TO MODIFY THIS SYLLABUS AT ANY TIME. THEREFORE, YOUR ATTENDANCE AND ATTENTION TO THE ANNOUNCEMENTS ON CANVAS ARE CRUCIAL BECAUSE THEY WILL ASSIST YOU WITH REMAINING CURRENT ON THE MATERIAL AND KNOWING WHEN THE SYLLABUS MAY BE MODIFIED.

Schedule of Topics - BIOL 1306		
Topic	Chapter	
Introduction, Study of Life	1	
Chemical Context of Life	2	
Carbon and Molecular Diversity of Life	3	
Tour of the Cell	4	
EXAM I – ** Sept. 24 th		
Membrane Transport and Cell Signaling	5, 9	
Introduction to Metabolism	6	
Cellular Respiration and Fermentation	7	
Photosynthesis	8	
EXAM II – ** Oct. 22 nd		
The Cell Cycle	10	
Meiosis and Sexual Life Cycles	11	
Mendel and the Gene Idea	12	
EXAM III – ** Nov. 19 th		
Chromosomal Basis of Inheritance	13	
Molecular Basis of Inheritance	14	
Gene expression (Gene to Protein)	15,16	

^{**}Tentative Exam Dates – subject to change

 $No\ classes:\ \underline{Labor\ Day-Sept.\ 1^{st}} \qquad | \qquad \underline{Thanksgiving\ Break-November\ 24-28^{th}}$

Last Day to Drop with a "W": Nov. 4th, 2025

Final Exam: Week of Dec 8th

8:00am MWF class – TBD @ 8am

9:05am MWF class – TBD @ 8am