
Introduction to Life Science I
Biology 1301 (section 001)
Summer 1 2026

Instructor: Rachel Leicher

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Office hours: by appointment only

Meeting Information: This course will be entirely online, and all course work will be completed online.

First day of class: June 1st, 2026 Last Day of Class: July 3rd, 2026

Course Objectives: Biology 1301 is the first of two courses designed to provide a thorough introduction to biological science. The goal of the course is for students to learn important 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...

- To define biology and evolution.
- Contrast the types of biological literature and utilize search engines to engage with it.
- Comprehend and apply the scientific method.
- Understand experimentation and its limitations.
- Describe the characteristics of living organisms.
- Analyze the chemical nature of life.
- State and discuss cell theory.
- Compare and contrast prokaryotic and eukaryotic cell structure.
- Be familiar with cellular metabolic pathways and analyze the implications of diet on health.
- Compare and contrast mitosis and meiosis
- Describe how cell division and cancer are linked.
- Diagram and solve basic genetic crosses and health impact.
- Understand the significance of biology to you and your life.
- Apply the knowledge

Required Materials:

Textbook: Hoefnagels, Mariëlle. 2025. Biology: The Essentials. McGraw Hill, New York NY.
ISBN: 9781266436369

NOTE: This comes bundled with an electronic version of the textbook. Therefore, you do not need to buy the textbook separately unless you want a print copy.

*Textbook also available through ProQuest EBook Central through UT Tyler
<https://ebookcentral.proquest.com/lib/uttyler/detail.action?docID=6507653>

***You will need to buy access to McGraw Hill Connect to have access to the bundled connect assignments and textbook**

Internet Access using a Device (must be able to use Lockdown Browser and Respondus)

Grading:

1. Homework Assignments/McGraw Hill Connect Assignments (25%)
2. Quizzes (25%)
3. **ONE** Project: TBD (30%)
4. Discussion Board Posts/ Activities (20%)

Grading: 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 available in Canvas, allowing you to view your current grade at any time. Please be aware that I cannot offer 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 following letter grade, I will round it up **automatically** (see grade scale above). The only other adjustment that will be made is if the final percentage is **WITHIN ONE POINT** of the following 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, I will **round up to the next letter grade**. (Mitigating circumstances will be considered at the discretion of the instructor).

Course work will be uploaded a week at a time. Due dates will be posted on Canvas and students will be expected to keep up with coursework. Because this is a summer course, all the same material that is covered during the spring or fall semester will still be covered within the shortened summer semester. This means that this course will require a lot of time to watch lectures, learn the content, and complete assignments. Students, please be aware that in-person summer courses meet for 3 hours, 4 days a week, so as online students, the equivalent of course work will still need to be completed online and at home.

Late work and Make-up policy: All assignments are expected to be submitted by the posted deadlines. **NO LATE WORK WILL BE ACCEPTED**. All students are responsible to turn in assignments, quizzes, etc by the posted due date on Canvas.

Extensions or make-up opportunities may be granted in cases of documented emergencies or other serious circumstances (e.g., illness, family emergencies, university-sanctioned events). To be eligible for an extension:

- You must contact the instructor as soon as possible – ideally before the due date and provide appropriate documentation.
- Extensions are granted, or not granted, at the discretion of the instructor.

Please note that simply missing a deadline without prior communication is not a valid reason for an extension or grade adjustment.

Attendance/Participation: Because this course is an online course, attendance and participation will not be calculated into the overall grade. Students are expected to dedicate adequate time on

their own to watch lectures, complete quizzes, activities, discussion posts, project(s), etc by the listed due date on Canvas.

Homework Assignments: You will be required to complete homework assignments and/or online MH Connect activities throughout the semester. These activities are designed to help you engage actively with the course material and improve your understanding. These assignments will be assigned by the instructor based on the class pace in the course. Late work will not be accepted.

Quizzes: Quizzes will be administered regularly throughout the semester, typically once per lecture (this is subject to change depending on content). All quizzes are completed individually online using a lockdown browser.

Each quiz will be worth 10–15 points, depending on content and length. Quizzes will typically have a time limit of 10 minutes. Details for each quiz (number of questions, broad subject matter, and allotted time) will be displayed on the assignment page on Canvas.

Project: This course will require students to complete a project over the course of the semester. This project will be completed individually outside of class time. The specifics for the project will be announced during the first week on class. More specifics can be found under the project information page.

Discussion Board Posts/Activities: Throughout the semester, students will complete a series of discussion-based assignments and/or activities connected to our course text and content. These activities are designed to deepen engagement with the material, support critical thinking, and prepare students for class participation and assessments. The specifics for each post will be outlined on the Canvas assignment page.

Introductory Discussion Post

During the first week of class, students will submit an introductory post to help establish our classroom community. This post will include basic background information, academic or professional interests, and personal goals for the course. Additional instructions will be provided on the course website.

Participation & Completion Expectations

To receive full credit for a checkpoint, students are expected to:

- Submit online posts by the posted deadline when required
- Demonstrate familiarity with the assigned chapters through contributions and responses
- Engage respectfully and thoughtfully with peers
- Utilize only the source material allowed and not use any outside assistance (people, internet, AI, etc) to complete the assignments.

Students who do not complete the assigned reading prior to class may not be able to meaningfully participate and may lose credit for that checkpoint.

All discussion posts will be assessed for AI usage. Any student found to have used AI inappropriately to complete an assignment will receive a 0 for the assignment and be reported to the university.

Professional Conduct

All written and verbal contributions should reflect professional communication. Students are encouraged to reference specific ideas, themes, or examples from the source material to support their points during discussions and written posts.

CANVAS: Students should log into Canvas as soon as possible 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, videos, discussion board posts, quizzes, 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 regularly with course updates. Another helpful tool is that all course grades will be available in Canvas, allowing students to view and calculate their current course grades at any time.

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 possessing anything containing course content will be considered cheating, whether you refer to it during the exam.** Also, be aware that **TALKING to anyone other than the instructor or proctor during an EXAM will automatically be considered cheating.** It does not matter what you were talking about. This includes using **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 instructor's discretion.

Lockdown Browser and Respondus: Because this is an online course, all quizzes and some select discussions will have a lockdown browser used. Students are responsible to ensuring that the lockdown browser is installed and works correctly BEFORE beginning the assignment. These assignments should also be completed well before the due date to address any technical difficulties. If you are caught cheating in any way, shape, or form, you will receive a 0 for assignment and be reported to the university. Respondus may also be used for some select assignments. Again, it is the students responsibility to ensure that the program is properly installed and worked prior to completing the assignment and with enough time prior to the due date to address any technical issues.

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

Accessibility: If needed, accommodations can be provided through the university (see **Disability/Accessibility Services below**). In order to receive accommodations, students will need to acquire SAR accommodations through the university. If a student previous had accommodations in past semesters, please reach out to the instructor to ensure that your paperwork has been processed and received. Please also reach out to the instructor to communicate what is needed for you to be successful I the course.

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).

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 [Student Conduct and Discipline policy](#) in the Student Manual Of Operating Procedures (Section 8).

FERPA: UT Tyler follows the Family Educational Rights and Privacy Act (FERPA) as noted in [University Policy 5.2.3](#). 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 [Excused Absences for Religious Holy Days as noted in the Catalog](#).

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 [Pregnant and Parenting Self-Reporting Form](#).

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

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

Resources available to UT Tyler Students

- [UT Tyler Counseling Center](#) (available to all students)
- [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](#)
- [Title IX Reporting](#)
- [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 IN CANVAS ARE CRUCIAL BECAUSE THEY WILL ASSIST YOU IN REMAINING CURRENT ON THE MATERIAL AND KNOWING WHEN THE SYLLABUS MAY BE MODIFIED.

Schedule of Topics – BIOL 1301

Introduction to Course (Syllabus, Canvas tour, etc)

The Scientific Study of Life (Chapter 1)

The Chemistry of Life (Chapter 2)

Cells (Chapter 3)

The Energy of Life (Chapter 4)

Photosynthesis (Chapter 5)

Respiration and Fermentation (Chapter 6)

DNA Structure and Gene Function (Chapter 7)

DNA Replication, Binary Fission, and Mitosis (Chapter 8)

Sexual Reproduction and Meiosis (Chapter 9)

Patterns of Inheritance (Chapter 10)

DNA Technology (Chapter 11)

*Supplementary materials and reading may also be provided and covered during the duration of the course.

Last Day to Withdrawal from the course: June 24th, 2026