## GENERAL BIOLOGY II LABORATORY (BIOL 1107) Spring 2025

**Teaching Assistant:** 

Office: Email: Phone number:

Office hours:

**Lab Supervisor**: Jessica L. Coleman, MS. **Office**: BEP 114 **Phone**: (903) 565-5889

**Course Description:** The scientific study of life at the organismal, population, and community levels, including form, function, reproduction, taxonomy, systematics, ecology, and evolutionary history of biodiversity.

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

- Describe and apply the scientific method
- Proficiently use both a compound and dissecting microscope
- Apply the principles of systematics
- Understand the concept of evolution as genetic change in a population over time
- Recognize living organisms from most major groups including prokaryotes, protists, plants, fungi, and animals
- Describe the major characteristics of living organisms from the groups listed above
- Have a better understanding of methods and techniques used in the biological sciences

Required Materials: Spiral Notebook

**Lab Manuals:** Coleman, Jessica L. 2021. *Biological Investigations*. 6<sup>th</sup> Edition. Fountainhead Press. **E-text** – <a href="https://tophat.com/students/">https://tophat.com/students/</a>

We will use TopHat (www.tophat.com) to access the digital interactive textbook Biological Investigations, which we will use in this class. For instructions on creating a TopHat account and enrolling in our TopHat course, please refer to the invitation sent to your school email address or consult TopHat's Getting Started Guide (https://bit.ly/31TGMlw).

If you already have a TopHat account, go to [URL] to be taken directly to our course. If you are new to TopHat, go to <a href="https://app.tophat.com/register/student">https://app.tophat.com/register/student</a> and search for our course with the following join code: [join code]

Bear in mind that textbook material will be made available throughout the semester, so do not panic if you do not see any in the course upon entry. Should you require assistance with TopHat at any time, please contact their Support Team directly by way of email (<a href="mailto:support@tophat.com">support@tophat.com</a>), the in-app support button, or by calling 1-888-663-5491. Their technical support team may require specific user information when troubleshooting issues.

**Recommended Textbook**: Van De Graaff, Kent M. & J. L. Crawley. 2009. *A Photographic Atlas for the 6<sup>th</sup> Edition Biology Laboratory*, Morton Publishing.

### **Grading:**

	Points Possible	Percentage	Points	Grade
Practicals (2)	200	90–100%	495 – 550	A
Lab Reports (1)	150	80–89%	440 – 494	В
Quizzes (10)	100	70–79%	385 – 439	С
Lab Manual	50	60–69%	330 - 384	D
Homework (1)	50	0–59%	0 - 329	F
Total:	550			

Your instructor will assign letter grades 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 that you can view your current course grade anytime. Your average shown in Canvas will determine your final grade in the course. Please be aware that I cannot give you EXTRA CREDIT or ADDITIONAL WORK at the end of the semester.

At the end of the semester, grades will be calculated in Canvas according to the syllabus. If your average is within 0.5 points of the next letter grade, I will automatically round it up (see 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. I will round up to the next letter grade if you meet these criteria. (Mitigating circumstances will be considered at the discretion of the instructor).

**Practical Exams:** There will be two practical exams during the semester. Exams are designed to test the student's practical skills and techniques in the lab. There will typically be 33 stations (three questions at each station) where you will be required to identify the equipment, specimens, or demonstrate your knowledge of techniques. You will rotate through each station and <u>not be allowed to return to the station</u>. You will be provided with a scratch piece of paper where you can make notes about each station to think about at the end of the exam. You will only be allowed approximately one and a half minutes per station. Your instructor will give you more information before the scheduled practical exam date.

**Make-up Exams:** Make-up exams (and other material) will be given **ONLY** if a student notifies the instructor in **ADVANCE** or produces a verifiable written medical excuse. The students who fail to make appropriate arrangements will receive a grade of "0" for the missed exam or other material.

Quizzes: There will be <u>at least 10 quizzes</u> during the semester. Quizzes will be posted online (Canvas) for you to complete during the semester. You will have 10-15 minutes to complete these quizzes. Be sure to watch the clock closely, as you will not be granted extended time; you will have a point deducted for going over the time allotted for each quiz (since the quiz will autosubmit at the end of the allotted time). Each quiz will be worth 10 points. If you miss a quiz for ANY reason (including illness and excused travel absences), that quiz will be counted as one of the dropped scores. There will be NO make-up quizzes!

**Attendance:** Attendance is 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.

## NOTE: Attendance will be taken in each lab; missed labs will result in points lost for your overall lab manual grade.

Lab Manual/Notebook Grade: The lab manual grade (total of 50 points) will be broken down into two parts: 1) The lab manual (questions in TopHat) and 2) the Lab notebook (a journal you will keep for each week's lab).

1. <u>Lab Manual</u> (30 total Points) – You will be required to complete assignments in your lab manual via TopHat. Your instructor will provide you with a join code during the first lab or via Canvas to log into your section. Each lab will have a set number of points you can obtain by answering specific questions in the lab manual. You will receive points for both correctness and participation. You must make sure you have them completed <u>BEFORE</u> the due date posted by your instructor!

### Late Assignments in TopHat will NOT be accepted!

2. <u>Lab Notebook</u> (20 total points) – You are required to keep a lab notebook for the semester. You can keep this in a standard spiral notebook and tape it in tables, figures, or images as needed in your notebook. It is good practice to keep a log of all your activities in the lab. If you were to work in a research lab (i.e., Molecular lab), you would need to keep track of your records. In contemporary times, they are moving to a digital platform, but we will use a more traditional method of journal keeping for the General Biology Lab. Your instructor will provide you with additional information during the first lab period.

Keep in mind that each lab period requires you to work as a team to run experiments and answer questions. If you miss a day, then you will miss key information to add to your lab notebook. Your attendance is also part of the lab manual grade, and if you are missing multiple lab periods, you will not have accurate information for your lab notebook.

### A missed class will result in points deducted from your overall lab manual grade.

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 help you as you take this course. Another beneficial tool is that all course grades will be in **Canvas**, so students can view and calculate their current grades anytime.

**Pre-lecture Videos:** Students will be required to watch pre-lecture videos posted on Canvas and in your online lab manual. To view these videos, you will need to enroll in the UT Tyler Oncourse Digital Toolkit and Purchase the online lab manual (Tophat). The toolkit will have your pre-lecture videos and extra study material to help you be successful in the general biology labs. Your instructor will tell you more on the first day of the lab. Please make sure you watch the lecture **BEFORE** each lab, as there may be quiz questions pulled directly from these videos!

Lab Report Assignment: The lab report will be written over the Basic Ecology lab (Activity 3: Conducting and Ecological Study) this semester. Specifically, you will be examining the community structure of the two ponds on campus to determine if there is a statistical difference between the two systems. You will be responsible for composing a well-thought-out paper on this lab, including the basic components you include in a full write-up (e.g., mimic peer-reviewed literature). See the lab manual (on TopHat – Research Report Format) to detail what each should contain. It will be your responsibility to read these sections carefully to write up the lab report correctly. Be sure to follow all directions given by your instructor to improve the report throughout the semester. You will make three-part submissions of your paper throughout the semester, all of which will be submitted on Canvas. Each of these submissions is designed to improve your scientific writing for your final report submission. Be sure to read your instructor's comments and check the similarity reports BEFORE resubmitting your work. Your instructor will give you more details throughout the semester for these assignments.

Homework Assignment: You will be responsible for writing an essay (or a literature review) to discuss current research areas within the field of Conservation Biology. This writing assignment is designed for you to discuss a specific topic in conservation. For instance, you could focus your essay on the conservation of sea turtles and look at the current research that has been conducted on this topic. To address that topic, you must read primary literature that fits your topic thoroughly. You will need at least 5 primary literature references investigating a given topic (remember, the more references you use, the better your essay will be). You will use these references to write a short essay to describe what is currently being done to assess this conservation concern. Your job is to explain the studies' substance so that one of your peers in the class would better understand the research than they would have been able to get from reading only one or two articles on the topic. You could describe the results from a given study (i.e., the patterns in the data) in enough detail so that someone reading your summary could "see" the patterns based on your verbal description without having to look at figures or tables represented in an article.

Academic Integrity: Students should be aware that absolute academic integrity is expected of every student in all courses taken at The University of Texas at Tyler. Failure to comply can result in strong university-imposed penalties. For instance, submitting plagiarized work to meet academic requirements, including representing another's work or ideas as one's own; the unacknowledged word-for-word research results shall be grounds for charges of academic misconduct. Any cheating or other types of academic misconduct will be reported to the university administration and, at a minimum, will result in an automatic failure of the course.

#### **Exams**

- TAKEN INDIVIDUALLY, without input or assistance from anyone else, including students who have taken the exam, quiz, or course previously.
- The use of notes, texts, or any other reference material is **PROHIBITED**.
- Possession of anything containing course content will be considered cheating, whether you refer to them or not during the exam
- Talking during an exam to anyone other than the instructor or proctor will automatically be considered cheating, regardless of what you were talking about.
- Any use of a cell phone or any other electronic device that could be used to record or transmit test material is **PROHIBITED**. Phones must be out of sight and silenced during the exam.

• Hats worn during exams must be turned around or removed so the face is not covered.

#### Lab Reports

- Students may **NOT** plagiarize any part of the lab report. It must be written individually by the student.
- The methods may be similar since the same labs will be conducted; however, they may not be identical since everyone writes differently.
- The results may contain similar data to those of your group members; however, you should prepare your own tables and figures and create your own titles.
- You will submit this to a plagiarism checker via Canvas (unicheck), which will check for all forms of plagiarism. Your similarity report should be less than 40%. If it is not, you better double-check your work!

#### WHAT IS PLAGIARISM AND HOW CAN IT BE AVOIDED?

Plagiarism may be defined as (1) presenting work, ideas, or phrasing of another, in whole or part, as one's own without giving credit and proper documentation of sources; (2) copying material directly from sources (including electronic media) except when the material is enclosed in quotation marks and the source is clearly identified; (3) paraphrasing too closely to the original, even when the source is identified; and (4) claiming credit for work in any media (electronic, digital, artistic, etc.) where the student is not the original creator of said work. Work that is plagiarized will receive an automatic grade of "F". If you are unsure about this subject, please take the time to talk to your instructor and /or read this:

https://www.ox.ac.uk/students/academic/guidance/skills/plagiarism

You will also be required to turn in all written assignments (lab report assignments) in a Word document on <u>CANVAS</u>, which will use <u>UNICHECK</u> to assess your paper for Plagiarism. You will find this on your Canvas page for this lab course; each assignment will be compared to previous student work and the work of your classmates! You will only need to turn in a copy of your assignment via the CANVAS Link.

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 be reported for academic misconduct.

**Corrupted File Policy:** Any student who turns in a corrupted file will be given 24 hours to turn in a file that the instructor can open successfully. Failure to do so will earn a grade of "0" (Zero) for the paper.

**Laboratory Safety and Dress Code: Food and drink are NOT** allowed in the labs at any time. Students are also required to wear the following PPE during all lab sections:

- Clothes-toed shoes; absolutely NO open-toed shoes are allowed. If you show up to the lab with flip-flops, sandals, or other open-toed shoes, you will be asked to leave OR must wear departmental rubber boots or waders during lab time.
- Long pants must always be worn. If you show up to the lab with shorts or clothing

that does not completely cover your legs, you will be asked to leave, OR you must wear departmental waders during lab time.

- Some labs will require protective evewear, which we will provide during each lab.
- Some labs require **gloves**. If you leave the lab, you must remove your gloves and obtain new ones upon return.
- Lab coats will be provided if you want to wear them during lab time. These will be new and cleaned each week.

# YOU WILL NEED TO COMPLETE AND PASS (70% or better) THE BIOSAFETY MODULE AND QUIZ ON CANVAS!

#### **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 <u>Tuition and Fee Refund Schedule</u>. CAUTION #2: All international students must check with the <u>Office of International Programs</u> 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 <a href="https://hood.accessiblelearning.com/UTTyler/">https://hood.accessiblelearning.com/UTTyler/</a> 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 <a href="https://www.uttyler.edu/disability-services">https://www.uttyler.edu/disability-services</a>, 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 <u>Military and Veterans Success Center (MVSC)</u> 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 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 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 <a href="http://www.uttyler.edu/about/campus-carry/index.php">http://www.uttyler.edu/about/campus-carry/index.php</a>.

#### **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
- UT Tyler Supplemental Instruction
- <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
- 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
- <u>Military and Veterans Success Center (supports for all of our military-affiliated students)</u>
- 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 IN REMAINING CURRENT ON THE MATERIAL AND KNOWING WHEN THE SYLLABUS MAY BE MODIFIED.

General Biology II Laboratory Schedule – Spring 2025					
Week of	Торіс	Quiz Schedule	Assignments Due		
Jan 13 <sup>th</sup>	Introduction Human Impact on the Environment	Biosafety Q1; CITI Q2; Q3 (syllabus)	Hw 1 assigned (Short 1–2- page paper discussing current trends in conservation)		
Jan 20 <sup>th</sup>	Taxonomy Phylogenetic Systematics	Q4			
Jan 27 <sup>th</sup>	Hardy-Weinberg Natural Selection	Q5	Hw 1		
Feb 3 <sup>rd</sup>	Prokaryotes	Q6			
Feb 10 <sup>th</sup>	Protists	Q7	Assignment 1 (Introduction, Methods & Materials, Literature cited)		
Feb 17 <sup>th</sup>	Fungi & Plant diversity I (Seedless Plants)	Q8			
Feb 24 <sup>th</sup>	PRACTICAL I	Q9 (review)			
Mar 3 <sup>rd</sup>	Plant diversity II (Seed Plants)				
Mar 10 <sup>th</sup>	**Basic Ecology** (LAB REPORT TOPIC)	Q10			
Mar 17 <sup>th</sup>	SPRING BREAK – NO LABS				
Mar 24 <sup>th</sup>	Animal Diversity I	Q11	Assignment 2 (Full Draft)		
Mar 31st	Animal Diversity II	Q12			
Apr 7 <sup>th</sup>	Vertebrate Anatomy (Fetal Pig Dissection)	Q13			
Apr 14 <sup>th</sup>	Animal Behavior	Q14	Final Lab Report		
Apr 21st	PRACTICAL II	Q15 (review)			