



BIOL-1408-102H1-FA2024
Biology I for Non-Science Majors
Fall 2024

Lab MW 2:00-4:50, STEM 316
Lecture online

Instructor Information:

Dr. Gabrielle Henslee

Email: ghenslee@com.edu

Department telephone: (409) 933-8244

Student hours and location:

Monday and Wednesday 12:20-1:50

STEM 316

Required Textbook/Materials:

Textbooks

- ◆ Campbell Essential Biology with Physiology. Simon, Dickey, Hogan, and Reece. E-text with Modified Mastering Biology. Pearson. Accessed through Brightspace/D2L.
- ◆ BIOL 1406/1408 Lab Manual. Purchased through the COM Bookstore.

Physical resources

- ◆ Folder or three-ring binder to contain your lab manual.
 - > You should keep all pages of your lab manual, as well as any additional handouts, until the end of the semester.
- ◆ Scantrons (5). 882E (long and skinny)
 - > Must be purchased and handed to the professor prior to the first quiz. Directions for labeling the scantrons will be given on the first day of class.
 - > Each scantron will be used multiple times, so please take care to label each scantron as directed and avoid bending or creasing the scantron during use.
 - > Marks on the scantrons should be dark enough to be read on the computer but not so dark that the pencil lead smudges. This can prevent the computer from reading your answers.
 - > If you erase marks on a scantron, be sure that no trace of pencil mark is left. Otherwise the computer may incorrectly read your answer.
 - > Quizzes will be graded via scantron at the end of each week.
 - > Exams will be graded via scantron immediately after the exam.
 - > Failure to provide scantrons may result in a zero on the exam for which it is required.
- ◆ Recommended but not required: Physical note-taking supplies, including but not limited to highlighters, colored pencils, lined notebooks, and index cards.
 - > Studies have shown that writing things out by hand improves retention of the information. I recommend draw diagrams, creating outlines, and color coding your notes to connect ideas in a way that makes the most sense to you.

Online resources

- ◆ COM Brightspace/D2L. <http://com.brightspace.com>. This will be used for online activities, class announcements, and more. All class resources are available through Brightspace/D2L.
- ◆ Mastering Biology with eText. Login will be completed through Brightspace/D2L.

Course Description: Fundamental principles of living organisms will be studied, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of cytology, reproduction, genetics, and scientific reasoning are included.

Prerequisites: TSIA2 945-990 ELAR/CRC test AND 5 or higher on Essay OR 910-944 on CRC with 5-6 on Diagnostic Test + 5 or higher on Essay, or IRW 0320 with a grade of "C" or better.

Course requirements:

- ◆ **Lectures:** Due to the condensed nature of this course, lecture material will be posted online for students to review ahead of class. Understanding of the material will be evaluated using daily quizzes.
- ◆ **Labs:** During class, we will put the principles learned in lecture into practice using various lab activities. Lab activities will be completed for a grade and will form the basis for your lab exams, so it is crucial that you understand the reasoning behind and execution of these lab activities.
- ◆ **Attendance:** Attendance will be taken at the beginning of each class and will contribute to your final grade.
- ◆ **Homework:** There will be weekly assignments in Mastering Biology that can be completed for extra credit. These can be completed in part or in whole and will help you prepare for quizzes and exams.
- ◆ **Exams and Quizzes:** Exams will be taken during class time and may consist of multiple choice, true/false, diagram identification, fill-in-the-blank, and short answer questions. In order to help you prepare for exams, there will also be daily quizzes with a lower impact on your final grade.

Determination of Course Grade/Detailed Grading Formula:

Lecture grade (*total: 220 points*)

- ◆ Quizzes: 120 points
 - > There will be a quiz at the beginning of each class period. Each quiz will be worth 10 points.
- ◆ Lecture exam: 100 points
 - > One lecture exam, worth 100 points, will be given at the end of the semester.
- ◆ Mastering Biology activities (extra credit): 255 points
 - > Extra credit homework will be assigned in Mastering Biology for each module. You may also rework the problems for practice after the due date.
- ◆ Additional activities and quizzes may be added throughout the semester

Laboratory grade (*total: 460 points*)

- ◆ Lab daily grade: 130 points
 - > Attendance will be taken each class (10 points per day), with one free absence.
 - > Tardiness or failure to participate fully in lab will result in deduction of attendance points
- ◆ Group participation: 10 points
 - > You will spend lab periods working in groups. At the midpoint and end of the semester, you will submit evaluations of your own and your group members' ability to work as a team (5 points each).
- ◆ Lab manual: 120 points
 - > You are expected to participate fully in lab and complete the questions included in the lab manual. **You must bring your lab manual to all lab sessions, or you will not receive credit for that lab.**
 - > You must bring your lab manual to me at the end of each class so I can record your points. **Unless you bring me your lab manual at the end of each class, you will not receive credit for that lab.**
- ◆ Lab practicals: 200 points
 - > Two lab practicals, each worth 100 points, will be given during the semester.
 - > Any and all information included in the lab manual or encountered during the lab procedure may be included on the exam.

Grades will be posted to D2L and updated throughout the semester. **You are responsible for keeping track of your grade.** Do not email me in a panic at the end of the term because you are not earning the grade that you want.

Laboratory Science Statement: The grade for this course consists of both a lecture and laboratory component. **Students must earn a 70% or better in the laboratory component to successfully pass the course.** Earning less than 70% in the laboratory component will result in an F for the course regardless of the lecture grade. Passing the laboratory component and failing the lecture component will not guarantee a passing grade for the course. Deviations from this policy will be at the sole discretion of the instructor.

Grading Scale:

Letter Grade	Percentage
A	89.50% - 100%
B	79.50% - 89.49%
C	69.50% - 79.49%
D	59.50% - 69.49%
F	0% - 59.49%

Late Work, Make-Up, and Extra-Credit Policy: This course is designed to accommodate some of life's mishaps, difficulties, or tragedies by providing extended deadlines for selected assignments, as described below. After the extended deadline has passed, the assignment is closed, and the relevant submission link may be removed. Expect that no additional time will be provided. Any deviations from the policies described below are at the sole discretion of the instructor.

- ◆ **In class activities:** There will be no opportunities to make up in class activities. This includes quizzes. Please make every effort to attend class.
- ◆ **Mastering Biology extra credit assignments:** Due to the new expedited course schedule, the homework assignments on Mastering Biology are available for extra credit only.
 - > Not completing the assignments will not negatively impact your grade.
 - > Completing the assignments will positively impact your grade both in the addition of points to your final grade and in the additional information review and quiz/exam preparation.
 - > The assignments are rather time-intensive. They do not have to be completed in a single sitting. You can also choose to complete only part of an assignment.
 - > Because these assignments are for extra credit only, there will be no late work accepted. However, you may still access the assignments after the due date if you wish to use them for review.
 - > Only the assignments titled "Chapter ## Homework part #" are graded for points. Dynamic Study Modules are also listed on the assignment calendar and can be used for review, but these will not be graded.
- ◆ **Labs:** Labs are due the day they are completed in class. You must have me review your lab manual before leaving to earn credit for that lab. Students who are absent will not be allowed to complete the lab activity and will receive a zero for the day's assignment.
 - > You are responsible for understanding the material covered in lab even if you are absent. It is your responsibility to obtain any information you miss from a classmate.
- ◆ **Exams:** If you anticipate being absent, you must inform me **PRIOR TO THE EXAM**. Failure to communicate will result in a zero for the missed exam, which will likely result in you failing the course.
 - > Make up exams will be allowed in the case of family emergencies and documented illness. The make up exam must be taken within one week of the original exam date. After that point, the grade will be entered as zero.

Laboratory attendance policy: Students are expected to attend all class sessions as listed on the course calendar.

Attendance will be taken at the beginning of each class and will be adjusted throughout the class period as needed.

- ◆ This laboratory course is designed to support the information provided in the lectures and online materials. The lab course is an introduction to fundamental biology and covers important topics in each lab meeting. Attendance and participation are required and directly affect your weekly lab grade.
- ◆ Class will start promptly at 2:00 and will include a quiz. Students who arrive late will have no additional time to complete their quiz. Please be on time.
- ◆ Arriving late or leaving early (without approval from the instructor) may result in being marked absent for that day.
- ◆ Labs are designed to last most of the lab period, so expect to be in lab for the full time.
- ◆ In order to reduce illness and resulting class absences, I ask that you **wear a mask if you or any of your family, roommates, or close acquaintances show any signs of infectious illness.** This includes coughing, sore throat, sniffing, sneezing, runny nose, congestion, and severe or unusual fatigue. Please do not be the reason your classmates miss class.
- ◆ Because I understand life happens, I will drop one class worth of missed attendance points. However, I do ask that you communicate with me via email if you will be missing class.
- ◆ Due to the laboratory nature of this course, attendance is incredibly important. You are responsible for **all** material covered in class, whether you are present or not. If you are absent, you are responsible for obtaining any missed notes from a classmate.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means.

- ◆ All emails must include your name and section number. You may expect a response within 48 hours.
- ◆ I will be available to speak in person at the times posted at the top of this syllabus. Please come see me if you are having trouble understanding the course material.
- ◆ For questions regarding course content (schedule, grading, etc.), please check the syllabus and applicable D2L announcements before emailing.
- ◆ Students who send me an image from the 2008 tv show *Leverage* will receive 3 additional points.
- ◆ Make sure you are also monitoring your COM email and the D2L announcement board for important course communications.
- ◆ A general note: Treating your professors as people who want to help you will serve you better than viewing professors as obstacles to be overcome to obtain a passing grade. Communication both in and outside of class is absolutely vital. I cannot address problems if I don't know they exist.

**Suggested Reading for New College and Dual Credit Students:
A Comparison of High School to College**
Modified from www.csuchico.edu/arc/resources/college-vs-highschool

	High School	College
Responsibility	High school is mandatory. Your time is structured by others and you can count on teachers to remind you of your responsibilities and to guide you in setting priorities.	College is voluntary. You manage your own time, and must balance your responsibilities and set priorities.
Preparation	You may only study outside of class as little as 0 to 2 hours a week (and this may be last-minute test preparation). You seldom need to read anything more than once, and sometimes listening in class is enough.	You must study at least 2 to 3 hours outside of class for each hour in class. You need to review class notes and other course related materials regularly.
Instructors	Teachers remind you of your incomplete or missing assignments. Teachers provide you with information you missed when you were absent. Teachers often take time to remind you of assignments and due dates.	Professors will not remind you of incomplete or missing assignments. Professors expect you to get notes for classes you missed from classmates. Professors expect you to read and frequently consult the course syllabus; the syllabus spells out exactly what is expected of you, when exams and quizzes are scheduled or assignments are due, and how you will be graded.
Testing	Testing is frequent and covers small amounts of material. Makeup tests are often available. Teachers frequently rearrange test dates to avoid conflict with school events. Teachers frequently conduct review sessions, pointing out the most important concepts. Initial test grades may not have an adverse effect on your final grade. Proficiency is seen as your ability to reproduce what you were taught in the form in which it was presented to you, or to solve the kinds of problems you were shown how to solve.	Testing is infrequent and may be cumulative, covering large amounts of material. You, not the professor, need to organize the material to prepare for the test. Makeup tests are seldom an option; if they are, you need to meet certain requirements to request them. Professors in different courses schedule tests without regard to the demands of other courses or outside activities. First tests are often "wake-up calls" to let you know what is expected, but they also may account for a substantial part of your course grade. Proficiency is seen as your ability to apply what you've learned to new situations and to solve new kinds of problems.
Grading	"Effort counts." Courses are usually structured to reward a "good-faith effort."	"Results count." Though "good-faith effort" is important in regard to the professor's willingness to help you achieve good results, it will not substitute for the results produced by the grading process.

Classroom conduct policy: College of the Mainland requires that students enrolled at COM be familiar with the Standards of Student Conduct, which can be found in the online Student Handbook: <https://www.com.edu/student-services/student-handbook.html>. Students should act in a professional manner at all times. Disruptive students will be held accountable according to college policy. Any violations of the Code of Conduct will result in a referral to the Office for Student Conduct and may result in dismissal from this class.

Behavioral expectations: Each student is entitled to an environment conducive to learning. Any situation that prevents students from learning or the instructor from teaching is considered to be a disruption. Please be respectful of your fellow students and the instructor by adhering to the following:

- ◆ Cell phones should be silenced and put away during class.
- ◆ Laptops (and similar) are ONLY permitted during class to take notes. Surfing the internet, scrolling through social media, checking email, etc. is not permitted during class. *If your laptop appears to be a distraction to you or the students around you, you will be asked to put it away and use a pen and paper to take notes.*
- ◆ Drinks, food, gum, and application of cosmetics *are not allowed during lab.* Cubbies are provided near the door to store materials during lab, and students may step outside briefly if they need a drink. Students who have food or drink out during lab may lose attendance points.
- ◆ I encourage discussion and questions at appropriate times during lecture. *This does not include personal conversations.* Students not paying attention and participating in class may lose attendance points.
- ◆ Students may be removed from class at the discretion of the instructor if they are exhibiting disruptive behavior, and a Conduct Referral Form may be submitted to the Dean of Students. Repeated incidents will result in automatic withdrawal from the class.
- ◆ All students are expected to participate equally in group lab activities. If a student is not participating, attendance points will be deducted.

Exam policy: In order to provide a distraction-free testing environment, the following policies will be used on exam days:

- ◆ All bags, notes, headphones, and other materials will be stowed in the cubbies by the door.
- ◆ Phones and smart watches will be silenced and deposited in a box held by the instructor. When you are finished taking your exam, you may exchange it for your device(s).
- ◆ If a student leaves the room during the exam, their exam will be considered complete and will be collected for grading.
- ◆ Any student who does not adhere to these policies will be assumed to be cheating and will be given a ZERO for that exam.

Student Learner Outcome	Maps to Core Objective	Assessed via
1. Distinguish between prokaryotic/eukaryotic and plant/animal cells. Identify major cell structures and stages of the cell cycle.	Critical thinking	Lab activities Exam
2. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.	Critical thinking	Lab activities Exam
3. Describe and identify the importance of karyotypes, pedigrees, and biotechnology.	Critical thinking	Exam
4. Identify components of a DNA molecule. Describe replication, transcription, and translation.	Critical thinking	Exam
5. Analyze evidence for evolution and natural selection.	Critical thinking	Exam
6. Apply scientific reasoning to investigate questions. Utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.	Critical thinking Empirical and quantitative skills	Lab activities
7. Use critical thinking and problem solving to make informed decisions in the laboratory.	Critical thinking	Lab activities
8. Effectively communicate the results of scientific investigations.	Communication	Lab activities
9. Demonstrate the ability to work effectively with others to support and accomplish a shared goal.	Teamwork	Lab activities

Academic Dishonesty: Any incident of academic dishonesty will be dealt with in accordance with college policy and the Student Handbook.

- ◆ Cheating on exams is an extremely serious offense and will result in a grade of **ZERO** on that exam. In addition, the student will be referred to the Office of Student Conduct for the appropriate disciplinary action.
- ◆ Plagiarism is using someone else's words **or ideas** and claiming them as your own. This includes using someone's words without enclosing them in quotation marks, paraphrasing information without including a proper citation, copying directly from a website and pasting it into your paper, or using computer-generated (A.I.) text of any sort. Any assignment containing plagiarized material will receive a grade of **ZERO**, and the student will be referred to the Office of Student Conduct for the appropriate disciplinary action.
 - > Resources for avoiding plagiarism: <https://owl.english.purdue.edu/owl/resource/589/01/>

Course policies are subject to change. It is the student's responsibility to check Brightspace/D2L for corrections or updates to this syllabus. Any changes will be posted in the "Announcements" section as well as being updated in the syllabus itself.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Science and Engineering Department Chair Sheena Abernathy at sabernathy@com.edu.

Institutional Policies and Guidelines

Grade Appeal Process:

Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook: https://www.com.edu/student-services/docs/Student_Handbook_2024-2025_v2.pdf. *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.*

Academic Success & Support Services:

College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement:

Any student with a documented disability needing academic accommodations is requested to contact:

Kimberly Lachney, Student Accessibility Services Coordinator

Phone: 409-933-8919

Email: AccessibilityServices@com.edu

Location: COM Doyle Family Administration Building, Student Success Center

Textbook Purchasing Statement:

A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy:

Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is October 2. The last date to withdraw from the 16-week session is November 15. The last date to withdraw for the 2nd 8-week session is November 26.

FN Grading:

The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program:

The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.

Nondiscrimination Statement:

The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.

Fall 2024 Tentative Course Outline

Course schedule is subject to change. Any changes will be communicated in writing through D2L.

Date	Lecture Topics	Lab Topics	Quiz Topics	Mastering Biology Extra Credit Due
Aug 19	Ch 1: Biology Today	Intro to course Using D2L, online textbook, and Mastering Biology Lab safety	N/A	Ch 1: Aug 26
Aug 21	Ch 2: Essential Chemistry for Biology	Lab 1: Scientific Method	Course policies Lab safety Chapter 1	Ch 2: Aug 28
*Aug 26	Ch 3: The Molecules of Life	Lab 2: pH	Lab 1 Chapter 2	Ch 3: Sep 2
Aug 28	Ch 10: Structure and Function of DNA	Lab 3: Biomolecules	Lab 2 Chapter 3	Ch 10: Sep 4
Sep 2	Ch 4: A Tour of the Cell	<i>No class – Labor Day</i>	N/A	Ch 4: Sep 9
Sep 4	Ch 5: The Working Cell	Labs 4, 5, and 6: Microscopes, Cells, and Cell Transport	Lab 3 Chapter 10 Chapter 4	Ch 5: Sep 11
Sep 9	Ch 6: Cellular Respiration and Fermentation	Lab 7: Enzymes	Labs 4-6 Chapter 5	Ch 6: Sep 16
Sep 11	Ch 7: Photosynthesis	N/A	Chapter 6 Lab Exam 1 (Labs 1-6)	Ch 7: Sep 18
Sep 16	Ch 8: Cellular Reproduction	Lab 8: Cell Respiration and Fermentation	Lab 7 Chapter 7	Ch 8: Sep 23
Sep 18	Ch 9: Patterns of Inheritance	Lab 9: Photosynthesis	Lab 8 Chapter 8	Ch 9: Sep 25
Sep 23	Ch 11: How Genes are Controlled	Lab 10: Cell Division	Lab 9 Chapter 9	Ch 11: Sep 25
Sep 25	Ch 12: DNA Technology	Labs 11, 12: Genetics, DNA, and Biotechnology	Lab 10 Chapter 11	Ch 12: Sep 30
Sep 30	Ch 13: Evolution and Speciation	In class review	Labs 11-12 Chapter 12	Ch 13: Oct 2
*Oct 2	Ch 14: How Biological Diversity Evolves	N/A	Chapter 13 Lab Exam 2 (Labs 7-12)	Ch 14: Oct 7
Oct 7	N/A	In class review	Lecture Exam (Ch 1-14)	
Oct 9	N/A	<i>No class</i>	N/A	

* August 26: Census day

* October 2: Last day to withdraw from the course with a “W” grade