



BIOL-1408-101CL-SP2024
Biology I for Non-Science Majors
Spring 2024
MW 9:30-12:20, STEM 316

Instructor Information:

Dr. Gabrielle Henslee

Email: ghenslee@com.edu

Department telephone: (409) 933-8244

Student hours and location:

Monday 12:20-12:50, 1:20-1:50, or by appointment

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

- ◆ Scantrons (4). 882E. Must be purchased and handed to the professor prior to the first exam. Failure to provide scantrons may result in a zero on the exam for which it is required.

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: CPT Reading 78/READ 0370. Successful completion of College Algebra or better-level mathematics is recommended.

Course requirements: (including description of any special projects or assignments)

- ◆ **Lectures/Labs:** Each class period will be devoted to learning course material via lecture or lab activities. Attendance will be taken each class and will contribute to your final grade.
- ◆ **Homework:** You will have weekly assignments in Mastering Biology to be completed for credit. There will also be practice assignments that do not count towards your grade but may help prepare you for exams.
- ◆ **In class work:** Throughout the semester we will have various in class activities that are linked to the course material to help reinforce the information covered in lecture.
- ◆ **Lecture Exams:** 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.
- ◆ **Lab Activities:** You will be completing graded lab activities in class. These labs form the basis for your lab exams, so it is crucial that you complete and understand the lab activities.

- ◆ Lab Reports: During the semester, you will be required to submit lab reports for specific lab activities. You must attend the lab(s) the report is based on in order to receive credit for the lab report.
- ◆ Lab Practicals: Lab practicals are exams that cover the various lab experiments that are carried out. These will consist of multiple choice, fill-in-the-blank, short answer, and identification of results style questions. Each lab practical will cover six labs.

Determination of Course Grade/Detailed Grading Formula:

Lecture grade (*total: ≥825points*)

- ◆ Attendance/class engagement: 120 points
 - > Attendance will be taken each class (10 points per day excluding exams), with two free absences
 - > Tardiness, inattention, or class disruption will result in deduction of attendance points
- ◆ Quizzes: ≥50 points
 - > There will be a quiz at the beginning of ≥5 class periods. Each quiz will be worth 10 points.
- ◆ Lecture exams: 400 points
 - > Four lecture exams, each worth 100 points, will be given throughout the semester
 - > Any and all information covered in lecture or in the homework may be included on the exam.
- ◆ Mastering Biology activities: 255 points
 - > Homework assignments will be assigned in Mastering Biology for each module. You may complete each assignment up to two times to improve your score. 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: 500 points*)

- ◆ Lab daily grade: 120 points
 - > Attendance will be taken for each of the 12 laboratory sessions (10 points per day).
 - > 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 initial it. **Unless your lab manual has been initialed by me, you will not receive credit for that lab.**
 - > Lab manuals will be collected and graded randomly throughout the semester.
- ◆ Lab practicals: 200 points
 - > Four lab practicals, each worth 50 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.
- ◆ Lab reports: 50 points
 - > You will be required to submit two lab reports (25 points each) during the semester. Further details will be provided in D2L. You must attend the lab(s) that the report is based on in order to receive credit.

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%

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.

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. Please make every effort to attend class.
- ◆ **Mastering Biology assignments:** These assignments may be completed after the due date, with a 10% deduction for each day past the due date. Please use the course outline to help schedule your time for the course to assure you meet assignment deadlines.
 - > You may complete each assignment up to two times to improve your score. You may also rework the problems for practice after the due date.
 - > Only the assignments titled “Chapter ## Homework” are graded for credit. Dynamic Study Modules are also listed on the assignment calendar and may be completed for extra credit.
- ◆ **Labs:** Labs are due the day they are completed in class. You must have me initial 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.
 - > 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.
- ◆ **Extra credit:** Students may earn 25 points of extra credit by preparing and giving a presentation on a topic related to the information covered in class.
 - > The topic and date of presentation must be approved by me at least one week in advance.
 - > Suggested topics include but are not limited to current events, technological advances, and medical applications. If you have another topic of interest to you, do not hesitate to bring it to me for approval.
 - > The presentation must be 15±3 minutes long.

Lecture 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.

- ◆ Leaving early from class (without approval from the instructor) may result in being marked absent for that day. If you do have to miss class, basic course materials will be posted on Brightspace/D2L. It is your responsibility to obtain any additional notes from a classmate.
- ◆ In order to reduce illness and resulting class absences, I ask that you wear a mask in my class and recommend that you mask in other classes as well. (This has the added benefit of reducing springtime allergies.)
- ◆ Because I understand life happens, I will drop up to two classes worth of missed attendance points. However, I do ask that you communicate with me via email if you will be missing class.
- ◆ Class will start promptly at 9:30 and may include a quiz. Students who arrive late will have no additional time to complete their quiz. Please be on time.

Laboratory attendance policy: 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. Labs are designed to last most of the lab period, so expect to be in lab for the full time. Arriving late to lab may result in not

receiving full credit for completing the lab. You are responsible for the material covered in lab, and it is your responsibility to obtain 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.
- ◆ Students who send me an image from the 2002 tv show *Firefly* will receive 3 points extra credit.
- ◆ Make sure you are also monitoring your COM email and the D2L announcement board for important course communications.

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 are allowed during lectures and exams but *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.

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.

Provision for inclement weather: We have a great deal of material to cover this semester. In the case of inclement weather, class will be held in a virtual classroom in D2L to ensure no material is lost. If this method is used, an announcement will be posted in D2L, and a virtual meeting will be held during normal class hours.

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Distinguish between prokaryotic/eukaryotic and plant/animal cells. Identify major cell structures and stages of the cell cycle.	Critical thinking	In class activity Lab activities Exam

2. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.	Critical thinking	In class activity Lab activities Exam
3. Describe and identify the importance of karyotypes, pedigrees, and biotechnology.	Critical thinking	In class activity Exam
4. Identify components of a DNA molecule. Describe replication, transcription, and translation.	Critical thinking	In class activity Exam
5. Analyze evidence for evolution and natural selection.	Critical thinking	In class activity 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 reports
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.

Spring 2024 Tentative Course Outline

Week	Date	Lecture/Lab Topic	Assignments Assigned	Due on
1	1/15	No class – MLKJ Day		
	1/17	Intro to course and lab safety Chapter 1: Biology Today	Lab safety acknowledgement form Syllabus acknowledgement form Buy and turn in 4 scantrons Buy and bind lab manual	1/17 1/22 1/22 1/22

			Mastering Biology intro modules	1/22
			Mastering Biology chapter 1 assignment	1/23
2	1/22	Chapter 2: Essential Chemistry for Biology	Mastering Biology chapter 2 assignment	1/28
	1/24	Lab 1: Scientific Method		
3	1/29	Chapter 3: The Molecules of Life	Mastering Biology chapter 3 assignment	2/4
	1/31	Lab 2: Determining pH		
4	2/5	Chapter 4: A Tour of the Cell	Mastering Biology chapter 4 assignment	2/11
	2/7	Lab 3: Biomolecules	Lab report 1 option 1: Basic biochemical techniques (Labs 2-3)	3/20
5	2/12	Chapter 5: The Working Cell	Mastering Biology chapter 5 assignment	2/25
	2/14	Lab 4: Microscopy		
6	2/19	EXAM 1: CHAPTERS 1-4		
		LAB PRACTICAL 1: LABS 1-4		
	2/21	Lab 5: Visualizing Cells		
7	2/26	Chapter 6: Cellular Respiration and Fermentation	Mastering Biology chapter 6 assignment	3/3
	2/28	Lab 6: Cellular Transport	Lab report 1 option 2: Microscopy (Labs 4-6)	3/20
			Group evaluation 1 (labs 1-6)	3/6
8	3/4	Chapter 7: Photosynthesis	Mastering Biology chapter 7 assignment	3/10
	3/6	Chapter 8: Cellular Reproduction	Mastering Biology chapter 8 assignment	3/19
	3/11 - 3/17	<i>No class – spring break</i>		
9	3/18	Chapter 9: Patterns of Inheritance	Mastering Biology chapter 9 assignment	3/31
	3/20	Lab 7: Enzymes	Lab report 2 option 1: Enzyme Function (Lab 7)	5/1
10	3/25	EXAM 2: CHAPTERS 5-8		
		LAB PRACTICAL 2: LABS 5-7		
	3/27	Lab 8: Respiration and Fermentation		
11	4/1	Chapter 10: Structure and Function of DNA	Mastering Biology chapter 10 assignment	4/7
	4/3	Lab 9: Photosynthesis	Lab report 2 option 2: Cellular metabolism (Labs 8-9)	5/1
12	4/8	Chapter 11: How Genes are Controlled	Mastering Biology chapter 11 assignment	4/14
	4/10	Lab 10: Cell Division		
13	4/15	Chapter 12: DNA Technology	Mastering Biology chapter 12 assignment	4/28
	4/17	Lab 11: Genetics		
14	4/22	EXAM 3: CHAPTERS 9-12		
		LAB PRACTICAL 3: LABS 8-10		
		<i>Last day to drop class for W grade</i>		

	4/24	Lab 12: DNA and Electrophoresis	Lab report 2 option 3: DNA technology (Labs 11-12) Group evaluation 2 (labs 7-12)	5/1 5/1
15	4/29	Chapter 13: How Populations Evolve	Mastering Biology chapter 13 assignment	5/5
	5/1	Chapter 14: How Biological Diversity Evolves	Mastering Biology chapter 14 assignment (extra credit)	5/5
16	5/6	EXAM 4: CHAPTERS 13-14 LAB PRACTICAL 4: LABS 11-12		
	5/8	<i>No class</i>		

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

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_2023-2024_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 at 409-933-8919 or klachney@com.edu. The Office of Services for Students with Disabilities is located in the 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 February 28. The last date to withdraw from the 16-week session is April 22. The last date to withdraw for the 2nd 8-week session is May 1. The last date to withdraw for spring mini session is May 29.

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.