



BIOL 1408.103CL
Biology for Non-Science Majors I
Spring 2024
T/Th 9:30-12:20, STEAM 316

Instructor Information:

Emilie Mobley

Email: emobley@com.edu

phone: 832-848-0719

****Note: Email is the preferred method of communication.** Responses can be expected within 24 hours during the week or within 48 hours during the weekends.

Student hours and location:

In Person Office Hours: Tuesdays and Thursdays 12:30-1, STEAM 316

Virtual Student Hours: Mondays and Wednesdays 9:30-12, or by appointment

During virtual student hours I will respond to emails as quickly as they come in. I will be available to meet with you through Microsoft Teams, but you will need to contact me ahead of time to schedule the meeting.

Required Textbook, Materials, and Resources:

Required Textbooks

- *Campbell Essential Biology with Physiology*, Simon, Dickey, Hogan, and Reece e-text with Modified Mastering Biology. Pearson. Note: The e-book and Modified Mastering Biology are purchased at the time of registration and you will gain access to the online materials once you are in Brightspace/D2L when classes begin.
- *BIOL 1406/8 Lab Manual*- purchased through the COM bookstore

Required Resources

- Scantrons (5)- 882E ****Note:** All 5 Scantrons must be turned in to Prof. Mobley by the Friday before the first exam

Computer Requirements

It is your responsibility to have access to a computer with the following resources:

- Reliable Internet Access
- A contemporary web browser capable of viewing flash video (Chrome and Firefox usually work best)
- Java installed and updated
- COM e-mail account
- Microsoft Office (COM offers free Office 365 access to students)
- A PDF reader

You are responsible for maintaining your own online access to the course. If your computer does not allow you to complete the assignments in the course, please use the computers available on campus. Be aware that the college computers are only available during the hours of operation for the computer labs and library. It is up to you to be aware of those times and get all assignments turned in on time.

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:

MasteringBiology Activities – For each online module, you will have weekly assignments in Mastering Biology to be completed for credit: an activity, a quiz, and an interactive lab. There are also extra assignments within the Mastering Biology website that are for practice and do not count towards your grade. These assignments can be completed to help prepare you for exams.

Chapter Study Guides — During class, you will complete a chapter study guide. This study guide acts as both your “guided notes” as you read through the chapter and lecture slides, as well as a review for Lecture Exams and the Comprehensive Final Exam.

Lecture Exams and Comprehensive Final Exam – The 3 lecture exams and the comprehensive final exam cover content from the textbook chapters and will consist of multiple choice, T/F, diagram identification, and short answer style questions. You will be given one week to complete each exam so that you can choose a time convenient for you.

Lab Activities – you will be completing lab activities in class, and these are graded activities. These labs will be what your lab exams are based off, so it is crucial that you attend lab to complete the various lab activities.

Lab Practicals – lab practicals are exams that cover the various lab experiments that are carried out and will consist of multiple choice, fill-in-the-blank, short answer, and identification of results style questions.

Required Online Resources

- COM Brightspace/D2L: <http://com.brightspace.com>. COM Brightspace/D2L will be used for online activities and more. All of the class resources are available through Brightspace/D2L.
- Modified Mastering Biology with eText – **Login will be completed through Brightspace/D2L.** You will have several assignments on Mastering Biology for each topic covered.

Determination of Course Grade/Detailed Grading Formula:

Lecture Grade:

1. Lecture exams (400 points) – A total of four lecture exams, each worth 100 points, will be given throughout the semester (see Tentative Course Outline).
2. Chapter Study Guides (60 points) – For each chapter, you will complete a Chapter Study Guide to be turned in at the end of class. These study guides also serve as the review for exams.
3. Mastering Biology Activities (130 points) – you will have online Mastering Biology Activities for each chapter of the textbook.
4. Comprehensive Final Exam (150 points)– covers ALL the material presented in lecture and assigned as reading throughout the semester.

Laboratory Grade:

1. Lab Daily Grade (120 points) – each lab will have activities to be completed in class for a portion of your lab daily grade.
2. Lab Review Project (40 points)- You will be assigned a certain lab from the semester and complete a short project about it. This project will include a rough draft (10 points), a peer review session (10 points), and a final draft (20 points).
3. Lab Practical (150 points) – two lab practicals (each worth 75 points) will be given during the semester covering material from previous labs.

Determination of Course Grade

Lecture Grade

Lecture exams	400 points
Chapter Study Guides	60 points
Mastering Biology Activities	130 points
Comprehensive Final Exam	150 points

Laboratory Grade

Lab Daily Grade	120 points
Lab Review Project	40 points
Lab Practical	150 points

Total:

1,050 points

Grading Scale:

Final grades assigned for this course will be based on total points earned and are assigned as follows:

Letter Grade	Grade Average
A	89.5% - 100%
B	79.5% - 89.4%
C	69.5% - 79.4%
D	59.5% - 69.4%
F	0 – 59.4%

Lab 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: Any deviations from the policies described below are at the sole discretion of the instructor.

Late Work Policy: The course is designed to accommodate some of life's mishaps, difficulties, or tragedies by providing extended deadlines for selected assignments. In those cases, there is a deadline extension after the initial deadline. After the extended deadline has passed, the assignment is closed, and the link may be removed. Expect that no additional time will be provided.

- Chapter Study Guides and Mastering Biology Activities have an extended deadline that results in a 10% loss of points for each day that the assignment is late. Please use the course outline to help schedule your time for the course to assure that you meet the assignment deadlines.
- Lecture Exams and Lab Practicals are an exception and have no extended deadline.
- Labs will be due on the day they are completed in class. Students that are not in class will NOT be allowed to complete the activity. However, the discussion questions can be turned in up to one week late, with a maximum possible score of 70%.

Make-Up Policy:

- Chapter Study Guides and Mastering Biology Activities do not have a make-up policy due to the extended deadline.
- Lecture Exams: Should you anticipate an absence on an exam day you must contact your instructor by phone, email or in person PRIOR to the absence. Your situation will be evaluated by your instructor and you may be allowed to take a make-up exam. Make-up exams will be allowed for a death in the family or a documented student illness. You must provide legitimate proof for your excuse in the case of missing an exam. The make-up exam MUST be taken within one week of the original exam date. **Missed exams will not be allowed without documented evidence.**
- Lab Practicals: Due to the nature of the course, no make-up Lab Practical will be permitted. This is because lab practicals require additional set up of equipment and experiments that cannot be replicated at a later time.
- Labs: There are NO MAKE-UP LABS. Arriving late to lab may result in not receiving full credit for completing the lab. You are still responsible for the material covered in lab and it is YOUR responsibility to obtain the information from a classmate.

Extra-Credit Policy: During the semester there will be opportunities for extra credit. Examples include study guide corrections or extra optional assignments. Students are responsible for submitting any extra credit work by the due date and no late work for extra credit will be accepted.

Attendance Policy:

Students are expected to attend all class sessions as listed on the course calendar. These attendance policies apply to both lecture and lab. Attendance will be taken at the beginning of each class. Leaving early from class (without approval from the instructor) may result in an absence for that day. If you do have to miss class, course materials will be posted on Brightspace/D2L, but it is your responsibility to obtain any additional notes from a classmate.

Laboratory Attendance Policy: This laboratory is designed to support the information provided by the lectures and online materials. This lab course is an introduction to fundamental biology, that covers important topics in each lab meeting. Labs are designed to last most of the lab period, therefore 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 notes from a classmate.

Attendance: Lab attendance and participation are required and directly affect your weekly lab grade. Any deviations from this policy are at the sole discretion of the instructor.

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. Responses can be expected within 24 hours during the week or 48 hours if it is the weekend.

Student Learner Outcomes	Core Objectives	Course Level Assessments
1. Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.		Lecture Exams, Labs 4&5
2. Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.		Lecture Exams, Lab 10
3. Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.	Empirical and Quantitative Skills	Lecture Exams, Labs 6,7,8&9
4. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.		Lecture Exams, Lab 11

5. Describe karyotypes, pedigrees, and biotechnology and provide an example of the uses of each.		Lecture Exams, Labs 11&12
6. Identify the importance of karyotypes, pedigrees, and biotechnology.		Lecture Exams, Lab 12
7. Identify parts of a DNA molecule, and describe replication, transcription, and translation.		Lecture Exams
8. Analyze evidence for evolution and natural selection.	Critical Thinking	Lecture Exams
9. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.		All Lab Assignments
10. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.		All Lab Assignments
11. Communicate effectively the results of scientific investigations.	Communication	All Lab Assignments, Lab Review Project
12. Students will demonstrate the ability to work effectively with others to support and accomplish a shared goal while recognizing and respecting different viewpoints.	Teamwork	All Lab Assignments, Lab Review Project

Academic Dishonesty: Any incident of academic policy will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a **grade of zero** on that exam and the student will be referred to the Office of Student Conduct for the appropriate discipline action.

Plagiarism: Plagiarism is using someone else's words or ideas and claiming them as your own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else's words without giving proper citation, copying directly from a website and pasting it into your paper, using someone else's words without quotation marks. Any assignment containing any plagiarized material will receive a **grade of zero** and the student will be referred to the Office of Student Conduct for the appropriate discipline action.

Link(s) to resource(s) about avoiding plagiarism: <https://owl.english.purdue.edu/owl/resource/589/01/>

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 Sheena Abernathy at sabernathy@com.edu or 409-833-8330.

Online 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 on-line Student Handbook. <http://www.com.edu/student-services/student-handbook.php>. Students are expected to be familiar with and abide by the Student Code of Conduct. Any violations of the Code of Conduct will result in a referral to the Dean of Students and may result in dismissal from this class.

<p>Course policies are subject to change. It is the student's responsibility to check Brightspace/D2L for corrections or updates to the syllabus. Any changes will be posted in Brightspace/D2L.</p>

Spring 2024 Tentative Course Outline (D2L = brightspace/D2L; MB = Mastering Biology):

Week	Dates	In Class Activities	Out-Of-Class Assignment Deadlines
1	Tues, 1/16	Intro to Course Chapter 1: Biology Today Chapter 1 Study Guide Due	Due Sun, 1/21 (MB): Introduction to Mastering Biology, How DSMs work, Chapter 1 Activity
	Thurs, 1/18	Lab Safety Checks Dry Lab	
2	Tues, 1/23	Chapter 2: Essential Chemistry for Biology Chapter 2 Study Guide Due	Due Sun, 1/28 (MB): Chapter 2 Activity
	Thurs, 1/25	Lab 1: Scientific Method Lab 1 Activity Due	
3	Tues, 1/30	Chapter 3: The Molecules of Life Chapter 3 Study Guide Due	Due Sun, 2/4 (MB): Chapter 3 Activity
	Thurs, 2/1	Lab 2: Determining pH Lab 2 Activity Due	
4	Tues, 2/6	Exam 1 (covering Chapters 1-3)	None
	Thurs, 2/8	Lab 3: Biomolecules Lab 3 Activity Due	
5	Tues, 2/13	Chapter 4: A Tour of the Cell Chapter 4 Study Guide Due	Due Sun, 2/18 (MB): Chapter 4 Activity
	Thurs, 2/15	Lab 4: Microscopy Lab 4 Activity Due	
6	Tues, 2/20	Chapter 5: The Working Cell Chapter 5 Study Guide Due	Due Sun, 2/25 (MB): Chapter 5 Activity
	Thurs, 2/22	Lab 5: Visualizing Cells Lab 5 Activity Due	
7	Tues, 2/27	Exam 2 (covering Chapters 4&5)	None
	Thurs, 2/29	Lab 6: Cell Membrane Transport Lab 6 Activity Due	
8	Tues, 3/5	Chapter 6: Cellular Respiration and Fermentation Chapter 6 Study Guide Due	Due Sun, 3/10 (MB): Chapter 6 Activity
	Thurs, 3/7	Lab Practical 1 (covering Labs 1-6)	
	Mon, 3/11- Fri, 3/15	Spring Break- NO CLASS	None
9	Tues, 3/19	Chapter 7: Photosynthesis Chapter 7 Study Guide Due	Due Sun, 3/24 (MB): Chapter 7 Activity
	Thurs, 3/21	Lab 7: Enzymes Lab 7 Activity Due	
10	Tues, 3/26	Chapter 8: Cellular Reproduction Chapter 8 Study Guide Due	Due Sun, 3/31 (MB): Chapter 8 Activity
	Thurs, 3/28	Lab 8: Respiration and Fermentation Lab 8 Activity Due	

11	Tues, 4/2	Exam 3 (covering Chapters 6-8)	None
	Thurs, 4/4	Lab 9: Photosynthesis Lab 9 Activity Due <i>Lab Project Topic Assigned</i>	
12	Tues, 4/9	Chapter 9: Patterns of Inheritance Chapter 9 Study Guide Due	Due Sun, 4/14 (MB): Chapter 9 Activity
	Thurs, 4/11	Lab 10: Cell Division Lab 10 Activity Due	
13	Tues, 4/16	Chapter 10: The Structure and Function of DNA Chapter 10 Study Guide Due	Due Sun, 4/21 (MB): Chapter 10 Activity Due Sun, 4/21 (D2L): Lab Project Rough Draft
	Thurs, 4/18	Lab 11: Genetics Lab 11 Activity Due	
14	Tues, 4/23	Chapter 12: DNA Technology Chapter 12 Study Guide Due Begin Chapter 13: How Populations Evolve	Due Sun, 4/28 (MB): Chapter 12 Activity Due Sun, 4/28 (D2L): Lab Project Final Draft
	Thurs, 4/25	Lab 12: DNA and Biotechnology Lab 12 Activity Due <i>Lab Project Peer Review</i>	
15	Tues, 4/30	Finish Chapter 13 Lecture Chapter 13 Study Guide Due Exam 4 (covering chapters 9, 10 & 12)	Due Sun, 5/5 (MB): Chapter 13 Activity
	Thurs, 5/2	Lab Practical 2 (covering labs 7-12)	
16	Tues, 5/7	Final Exam Review	Complete any missing assignments or make-ups
	Thurs, 5/9	Comprehensive Final Exam (All chapters)	

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.