



BIOL 1408-102CL
Biology for Non-Science Majors I
Fall 2022
M/W 2-4:50, STEM 316

Instructor Information:

Emilie Mobley

Email: emobley@com.edu

phone: 832-598-7159

**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:

Mondays and Wednesdays, 1:30-2, STEM 316, or by appointment

Required Textbook/Materials:

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 D2L/Brightspace when classes begin.
- *BIOL 1406/8 Lab Manual*- purchased through the COM bookstore

Materials:

- Scantrons (5)- 882E **Note: All 5 Scantrons must be turned in to Mrs. Mobley prior to the first exam

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:

- Lectures/Labs – each week we will be covering material during class time and this material will involve lecture and/or lab each day.
- MasteringBiology – you will have weekly assignments in MasteringBiology to be completed for credit. There are also assignments that are for practice and do not count towards your grade. These assignments can be completed to help prepare you for exams. All assignments (both required and optional) can be accessed through the class Brightspace/D2L page.
- In class work/homework – 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 and Comprehensive Final Exam – both lecture exams and the final exam will be taken during class time and will consist of multiple choice, T/F, diagram identification, and short answer style questions.
- 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 Reports – during the semester, you will have lab reports that are due for specific lab activities. You must attend the lab that the report is based off 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 and will consist of multiple choice, fill-in-the-blank, short answer, and identification of results style questions.

Determination of Course Grade/Detailed Grading Formula:

Lecture Grade (715 points):

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). You can replace your lowest exam grade with your Comprehensive Final score.
2. Chapter Study Guides (55 points) – For each chapter, you will complete a Chapter Study Guide to be turned in via Brightspace/D2L. These study guides also serve as the review for exams.
3. Mastering Biology (110 points) – you will have various Mastering Biology homework assignments each week of the semester that cover topics discussed in lecture and assigned readings.
4. Comprehensive Final Exam (150 points)– covers ALL the material presented in lecture and assigned readings throughout the semester.

Laboratory Grade (250 points):

1. Lab Daily Grade (60 points) – each lab will have activities to be completed for a portion of your lab daily grade.
2. Lab Practical (150 points) – two lab practicals, each worth 75 points, will be given during the semester covering material from previous labs.
3. Lab Project (40 points) – a lab project regarding the enzyme, cell respiration, photosynthesis, and osmosis experiments will be assigned during the semester, worth 40 points. This Lab Project will be a group project and you will be graded on your participation and teamwork, in addition to the lab project itself.

Determination of Course Grade:**Lecture Grade (76%)**

Lecture exams	400 points
Chapter Study Guides	55 points
Mastering Biology Homework	110 points
Comprehensive Final Exam	150 points

Laboratory Grade (24%)

Lab Daily Grade	60 points
Lab Project	40 points
Lab Practical	150 Points

TOTAL**965 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.

- MasteringBiology Assignments and Chapter Study Guides have an extended deadline, up to two days after the original deadline, that results in a 10% loss of points for the late assignment. After missing the initial deadline, the maximum grade is 90%. Please use the course outline to help schedule your time for the course to assure that you meet the assignment and assessment deadlines.
- Lecture Exams, Lab Report, 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.

- In class work/homework if work is given during class to be completed in class, there is no extended deadline and students that are not in class will not be allowed to complete the activity. If homework is assigned, students will have ample time to complete the work and no extended deadlines are provided.

Make-Up Policy:

- MasteringBiology Assignments and Chapter Study Guides 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 Report: you will have ample time to complete the lab report and no make-up work will be accepted.
- Lab Practicals: Due to the nature of the course, no make-up Lab Practical will be permitted.
- 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.
- In class work/homework If you miss class on the day an assignment is due, you will receive a ZERO for the missed assignment. To prevent a grade of ZERO, you can scan and email the assignment to your instructor on the same day the assignment is due. If you are absent for an in-class assignment, there are no make-ups, and you will receive a ZERO for the in-class work.

Extra-Credit Policy: During the semester there may be opportunities for extra credit. 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. (Faculty may add additional statement requiring monitoring and communication expectations via Blackboard or other LMS)

Student Learner Outcomes:

Student Learner Outcomes	Core Objectives	Course Level Assessments
1.Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.		
2.Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.		
3.Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.	Empirical and Quantitative Skills	Lab Project
4.Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.		
5.Describe karyotypes, pedigrees, and biotechnology and provide an example of the uses of each.		
6.Identify the importance of karyotypes, pedigrees, and biotechnology.		
7.Identify parts of a DNA molecule, and describe replication, transcription, and translation.		
8.Analyze evidence for evolution and natural selection.	Critical Thinking	In class activity
9.Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.		
10. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.		
11. Communicate effectively the results of scientific investigations.	Communication	Lab 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	Lab 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 409-933-8330.

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.

<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:

1. Cell phones can be used sparingly during class, but if the use begins to be a disruption to yourself, other students, or the instructor, you will be asked to put the device away. Certain devices can be used to view content on the internet; however, this is at the discretion of the instructor. Laptops are ONLY permitted during class to take notes. Surfing the internet or checking email from your laptop is not permitted. **During exams, no electronics will be allowed out. Items not allowed include, but are not limited to, cell phones, laptops, tablets, ear buds, headphones. If the student has any of these devices out during an exam, the exam will be taken from the student, and they will receive a zero for that exam.**
2. Students can be removed from the class if they are exhibiting disruptive behavior as deemed by the instructor. Repeated incidents will result in automatic withdrawal from the class. Students who display this conduct will be removed from the class and a Conduct Referral Form may be submitted to the Dean of Students.

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.

Course outline:

Week	Dates	Activities	Assignment Deadlines
1	Mon, 8/22	Intro to Course Chapter 1: Biology Today	Introduction to Mastering Biology- due 8/28 Mastering Biology (MB) Ch. 1- due 8/28 Ch. 1 Study Guide (SG)- due 8/28
	Wed, 8/24	Lab Safety	
2	Mon, 8/29	Chapter 2: Essential Chemistry for Biology	MB Ch. 2- due 9/11 Ch. 2 SG- due 9/11
	Wed, 8/31	Lab 1: Scientific Method	
3	Mon, 9/5	Labor Day- No lecture!	
	Wed, 9/7	Lab 2: Determining pH	
4	Mon, 9/12	Chapter 3: The Molecules of Life	MB Ch. 3- due 9/18 Ch. 3 SG- due 9/18
	Wed, 9/14	Lab 3: Biomolecules	
5	Mon, 9/19	Exam 1 (covering Chapters 1-3)	
	Wed, 9/21	Lab 4: Microscopy	
6	Mon, 9/26	Chapter 4: A Tour of the Cell	MB Ch. 4- due 10/2 Ch. 4 SG- due 10/2
	Wed, 9/28	Lab 5: Visualizing Cells	
7	Mon, 10/3	Chapter 5: The Working Cell	MB Ch. 5- due 10/9 Ch. 5 SG- due 10/9
	Wed, 10/5	Lab 6: Cell Membrane Transport	Lab Project Assigned- due 11/9
8	Mon, 10/10	Exam 2 (covering Chapters 4 & 5)	
	Wed, 10/12	Lab Practical 1 (covering Labs 1-6)	
9	Mon, 10/17	Chapter 6: Cellular Respiration and Fermentation	MB Ch. 6- due 10/23 Ch. 6 SG- due 10/23
	Wed, 10/19	Lab 7: Enzymes	
10	Mon, 10/24	Chapter 7: Photosynthesis	MB Ch. 7- due 10/30 Ch. 7 SG- due 10/30
	Wed, 10/26	Lab 8: Respiration and Fermentation	
11	Mon, 10/31	Chapter 8: Cellular Reproduction	MB Ch. 8- due 11/6 Ch. 8 SG- due 11/6
	Wed, 11/2	Lab 9: Photosynthesis	
12	Mon, 11/7	Exam 3 (covering Chapters 6-8)	
	Wed, 11/9	Lab 10: Cell Division	Lab Project Due
13	Mon, 11/14	Chapter 9: Patterns of Inheritance Begin Chapter 10: The Structure and Function of DNA	MB Ch. 9- due 11/20 Ch. 9 SG- due 11/20
	Wed, 11/16	Lab 11: Genetics	
14	Mon, 11/21	Finish Chapter 10 Chapter 12: DNA Technology	MB Ch. 10/12- due 11/27 Ch. 10/12 SG- due 11/27
	Wed, 11/23	Lab 12: DNA and Biotechnology	
15	Mon, 11/28	Exam 4 (covering Chapters 9, 10 & 12) Chapter 13: How Populations Evolve	MB Ch. 13- due 12/4 Ch. 13 SG- due 12/4
	Wed, 11/30	LAB PRACTICAL 2 (covering Labs 7-12)	
16	Mon, 12/5	Final Exam Review Day	
	Wed, 12/7	Comprehensive Final Exam	

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://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.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.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

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 Michelle Brezina at 409-933-8124 or mvaldes1@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 October 5. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2nd 8-week session is December 1.

FN Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N 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 F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N 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.