BIOL 1408-103H2
Biology I for Non-Science Majors
Spring 2025
Lab MW 9:30-12:20 STEAM 316
Lecture online

Instructor Information: Samantha Blaine
Preferred contact method: email at sblaine@com.edu

Student hours and location:
Office Hours: Monday 4:50 PM – 5:30 PM and Wednesday 4:50 PM – 5:50 PM in STEAM 320, or by appointment via email.
Virtual Student Hours: During my student hours I will be available in person or virtually. I will respond to emails as quickly as they come in and I am able to during those times. I will be available to meet virtually through Microsoft Teams, if contacted in advance to schedule the meeting.

Required Textbook:

1. *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.

2. BIOL 1406/1408 Lab Manual, purchased through the COM Bookstore.

Note: You MUST have the lab manual and bring it to lab meetings in order to participate in lab and receive a grade.

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

- Internet access through a wired Ethernet connection
- 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.

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.

Physical Resources:

- Folder or 3-ring binder to contain lab manual
    - You should keep all pages of your lab manual, including any additional handouts, until the end of the semester.
- Scantrons (3), 888E
    - Must be purchased prior to the first exam; recommended purchased prior to the first lab. Notes about how to fill out the scantron and how this course will be using them will be given prior to exams.
- Recommended (not required) resources:
    - Physical note-taking supplies, including but not limited to highlighters, colored pencils, and/or index cards. Colored pencils will also be provided for appropriate labs.

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:

Online Lecture:

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.

Chapter Study Guides – For each online module 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 – both lecture exams and the final exam will be taken during class time and may consist of multiple choice, T/F, diagram identification, and short answer style questions.

Mastering Biology: Students will have homework assignments on Mastering Biology (online resource) for each chapter covered. These assignments are accessed through D2L.

In-Person Lab:

Safety: Closed toe shoes are REQUIRED for lab. Students will not be permitted to enter the lab without proper attire. Shorts are not allowed on lab days unless otherwise explicitly mentioned by instructor.

Scantrons: You must purchase **3 scantrons** for the exams from the Bookstore-type 888-E (39 cents each).

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

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

Determination of Course Grade:

Lecture Grade:

1. Lecture exams (200 points) – A total of two lecture exams, each worth 100 points, will be given throughout the semester (see Tentative Lab Schedule).
2. Chapter Study Guides (105 points) – For each of the modules, 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 Activities (105 points) – you will have Mastering Biology Activities for each section of material covered in the Learning Modules.
4. Lecture Quizzes (120 points) – you will have four Lecture Quizzes related to the material covered in the Learning Modules (see Tentative Lab Schedule).
5. Discussion Posts (80 points) – you will have various discussion posts in Brightspace/D2L to complete throughout the semester.
6. Comprehensive Final Exam (150 points)– covers ALL the material presented in lecture and assigned as reading throughout the semester.

Laboratory Grade:

1. Lab Activities (120 points) – You will have labs in person (see Tentative Lab Schedule) to be completed for your lab grade.
2. Lab Practical (150 points) – two Lab Practical Exams will be given during the semester covering material from previous labs.

Determination of Course Grade

Lecture Grade

Lecture exams	200 points
Chapter Study Guides	105 points
Mastering Biology Activities	105 points
Lecture Quizzes	120 points
Discussion Posts	80 points
Comprehensive Final Exam	150 points

Laboratory Grade

Lab Activities	120 points
Lab Practical	150 points

Grading scale: Final grades 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%

Final grade for this course consists of both a lecture and laboratory component. Students must earn 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.

Make-up, Late Work, and Extra-Credit Policy:

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

Late Work:

MasteringBiology activities and assignments have an extended deadline that results in a 15% loss of points for each day the assignment is late. After missing the initial deadline, the maximum grade is 85%. After the extended deadline has passed, the assignment will be closed and any incomplete assignments will be given a zero.

Chapter Study Guides have an extended deadline of two days (see course schedule) that will result in a 10% point reduction if submitted past the posted deadline.

Lab Activities (In Person), Lecture Quizzes, and Discussion Board Postings have no extended deadline.

Lecture Exams, Lab Practicals, and the Final Exam are an exception and have no extended deadline.

Make-Up Policies:

Lecture Exams: Should you anticipate an absence on an exam day (lecture or final exam) you must contact your professor by email or in person **PRIOR to the absence**. Your situation will be evaluated by your professor, and at the discretion of your professor 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. Missed exams will result in a zero on the exam. The make-up exam MUST be taken within one week of the original exam date. You will be allowed one exam make up during the semester. If you arrive late to an exam (lecture, lab or final) and any student has completed the exam, you will not be allowed to take the exam. If no student has finished, you will be able to take the exam, but will not have extra time and must turn in your exam at the regularly scheduled end of the exam.

Lab Practical: Should you anticipate an absence on the day of the Lab Practical, you must contact your instructor PRIOR to the exam. Your situation will be evaluated and at the discretion of your instructor, you may be allowed to take a make-up practical or attend the practical during a different course section. Make-up practicals 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 take place within one week of the original exam date.

Labs: There are no make-up labs. Arriving late to the lab may result in not receiving full credit for completing the lab. The 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. You are responsible for the material covered in lab and it is YOUR responsibility to obtain any needed notes from a classmate. Lab attendance and participation are required and directly

affect your weekly lab grade; labs should be completed in class and shown to the instructor for review before leaving. Any deviations from this policy are at the sole discretion of the instructor.

Extra Credit:
During the semester there will be opportunities for extra credit. Points scored from extra credit may be added independently or added directly to an appropriate exam score at the instructor's discretion. 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:

In Person Portion:
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 environmental science, 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.

Online Portion:
Students are expected to actively participate in their online course. In order to be counted as present in the online portion of this course, you must log in at least **2 times per week** to participate in the class, complete assignments, print notes, or complete quizzes. This policy follows the attendance policies prescribed in the 2023-24 College Catalog (http://coursecatalog.com.edu/). Failing to log in to Brightspace/D2L, failing to log in to Mastering Biology, or failing to complete your work as scheduled demonstrates insufficient progress towards obtaining the course goals (objectives) and is detrimental to learning course material.

Communication with 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.

- Please include your name and course number on all initial emails.
- It is your responsibility to monitor your email/D2L accounts for communication from your professor.
- Please allow a reasonable time (24–48 hours) for a reply to your email.
- Students who send me a picture of their favorite marine creature (fact or fictional) before the end of our first in-person meeting will receive 3 additional points.
- For grading content, please check the grade section in this syllabus and relevant areas in D2L before emailing.

Student Learner Outcomes:

Student learner outcomes	Core objectives	Course level assessments
Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.		
Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.		
Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.	Empirical and Quantitative Skills	Lab Project
Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.		
Describe karyotypes, pedigrees, and biotechnology and provide an example of the uses of each.		
Identify the importance of karyotypes, pedigrees, and biotechnology.		
Identify parts of a DNA molecule, and describe replication, transcription, and translation.		
Analyze evidence for evolution and natural selection.	Critical Thinking	In class activity
Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.		
Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.		
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
Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.		

Academic Dishonesty:

Disciplinary actions will be taken for students that cheat on exams, submit plagiarized work (see below) or are involved in collusion (helping others cheat or plagiarize) as defined in the Student Handbook under the heading "Discipline and Penalties". The maximum penalty imposed for violations will be an F in the course. The student will also be referred to the Dean of Students for further disciplinary action. Please read through the "Standards of Conduct" in the Student Handbook for a more complete discussion of these issues and your rights and responsibilities.

Plagiarism: Plagiarism is using someone else's words or ideas and claiming them as your own. Plagiarism is a very serious offense. It includes paraphrasing someone else's words without giving proper citation, copying directly from a website and pasting it into your paper, and using someone else's words without quotation marks and citation. 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 disciplinary action.

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, Chair of the Science Department 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/docs/Student_Handbook_2024-2025_v2.pdf.** . Students should always act in a professional manner. 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 professor from teaching is a disruption. Please be respectful of your fellow students and the professor by adhering to the following:

1. For on-campus instruction: Cellphones 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. Headphones and earbuds are not allowed during labs unless explicitly stated by the instructor. Certain devices can be used to view content on the internet; however, this is at the discretion of the instructor. Laptops are permitted during class only to take notes. Surfing the internet or checking email is not permitted. You may be asked to leave if you cannot follow this policy.
2. During exams, **NO electronics will be allowed.** This includes but is not limited to devices such as: cellphones, laptops, tablets, earbuds, headphones, and smart watches. If a 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.**
3. Due to safety reasons, friends, spouses, and children are not allowed in lecture rooms or lab rooms.
4. 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 may need to meet with the Dean of Students before being allowed to return to class.

Lecture & Lab Schedule

Week/ Date/ Weekday	Lecture Topics	Online Assignments	Lab Activities (In Person)
1 March 10 Mon	Ch 1: Biology Today	About Me Discussion Posting Intro to Mastering Biology (MB) How DSMs Work (MB)	Intro to Course & D2L Syllabus Lab Safety
1 March 12 Wed	Ch 2: Essential Chemistry for Biology	Ch. 1/2 Activity (MB) Ch. 1/2 Study Guide (D2L)	Lab 1 – Scientific Method

2 March 24 Mon	Ch 3: The Molecules of Life	DB – Introspections #1 (D2L)	Lab 2 – pH
2 March 26 Wed	Ch 4: A Tour of the Cell	Ch. 3/4 Activity (MB) Ch. 3/4 Study Guide (D2L)	Lab 3 – Biomolecules Lecture Quiz #1 (Ch1-4)
3 March 31 Mon	Ch 5: The Working Cell	DB – The Working Cell (D2L)	Lab 4 – Microscopes
3 April 2 Wed	Ch 6: Cellular Respiration and Fermentation	Ch. 5/6 Activity (MB) Ch. 5/6 Study Guide (D2L) Lab 6 – Diffusion/Osmosis (MB)	Lab 5 – Cells Lab 6 – Cell Transport Lecture Quiz #2 (Ch5-6)
4 April 7 Mon	Ch 7: Photosynthesis		**Lab Practical 1** (Labs 1-6) **Lecture Exam #1** (Chapters 1-6)
4 April 9 Wed	Ch 8: Cellular Reproduction	Ch. 7/8 Activity (MB) Ch. 7/8 Study Guide (D2L) Lab 7 – Enzymes (MB)	Lab 7 – Enzymes
5 April 14 Mon	Ch 9: Patterns of Inheritance	DB – Enzymes (D2L)	Lab 8 – Respiration and Fermentation Lecture Quiz #3 (Ch 7-9)
5 April 16 Wed	Ch 10: Structure and Function of DNA	Ch. 9/10 Activity (MB) Ch. 9/10 Study Guide (D2L)	Lab 9 – Photosynthesis
6 April 21 Mon	Ch 11: How Genes are Controlled	Lab 10 – Mitosis (MB) DB – Genetics (D2L)	Lab 10 – Mitosis and Meiosis
6 April 23 Wed	Ch 12: DNA Technology	Ch. 11/12 Activity (MB) Ch. 11/12 Study Guide (D2L) Lab 11 – Genetics (MB)	Lab 11 – Genetics Lecture Quiz #4 (Ch10-12)
7 April 28 Mon	Ch 13: Evolution and Speciation	DB – DNA/Biotechnology (D2L)	Lab 12 – DNA & Electrophoresis
7 April 30 Wed	Ch 14: How Biological Diversity Evolves	Ch. 13/14 Activity (MB) Ch. 13/14 Study Guide (D2L)	**Lab Practical 2** (Labs 7-12) **Lecture Exam #2** (Chapters 7-10, 12)
8 May 5 Mon	N/A	DB – Introspections #3 (D2L)	In-Class Review

8 May 7 Wed	N/A		**Comprehensive Final Exam** (Chapters 1-14)

***MB =** Mastering Biology online homework questions

***D2L** = Assignments found on D2L course

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 February 26. The last date to withdraw from the 16-week session is April 21. The last date to withdraw for the 2nd 8-week session is April 30.

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.