BIOL 1408.103HY
Biology for Non-Majors I
Spring 2021
Th 1:30-4:20 MS 147

Instructor Information

Professor Ratley

Email: cratley@com.edu

Student Hours**:** Virtual student hours will be available in Blackboard by appointment by accessing the Virtual Office Hours tab. I will be available virtually on Mondays from 1:00pm until 5:00pm and on Tuesdays from 1:00pm until 4:30pm. Appointments should still be scheduled for any audio/video student hours.

Course Information

Required Textbooks and Materials access on day one:

- Textbooks and/or courseware will be available through VitalSource digitally. The cost of the course materials for this course is $56.25. The course materials will be available on the first day of class and you will be given the opportunity to opt-out of the e-book prior to the census day of the class. If you choose not to use the course materials, you will be reimbursed after census day of the class. The materials are not refundable after the census day. You will receive an email with more information about the use of the course materials closer to the start of the semester
- COM BIOL 1406/1408 Lab Manual
  - The lab manual is only available through the COM Bookstore and must be purchased prior to the first lab activity.

Recommended Texts & Other Readings:

- Additional documents will be made available on Blackboard.

Course Description: A survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Prerequisite: TSI Reading 351 or IRW 0320 with a grade of "C" or better.

Course Requirements:

Lecture: Lectures will be delivered through Blackboard via lecture recordings.

Lab: See syllabus schedule for on-campus lab dates; all other labs will be delivered online.

- Courses will be divided into groups for on campus labs to allow for social distancing. Students will be notified of their group at the beginning of the semester.
- Closed toe shoes are required for labs. Students will not be permitted to enter the lab room without proper attire.
- Face mask/covering is required on campus. Students will not be permitted on campus without a face mask/covering.

Online Resources

- COM Blackboard: https://de.com.edu/webapps/login/ COM Blackboard allows students to complete coursework and to communicate with each other and the professor. Many class resources will be available through Blackboard. Training is recommended to access Blackboard. For questions regarding course access or training, contact Educational Technology Services (http://edtech.com.edu/) at 409-933-8453.
  - Mastering Biology: There will be assignments on Mastering Biology for each topic covered.
  - Respondus LockDown Browser: **Exams will be administered online and require a webcam**. See the syllabus schedule for tentative due dates since exams will only be visible during the week that they are available.
    Respondus Lockdown Browser + Monitor will be required to access the exams. Please see the Course Resources tab of Blackboard for the download link and more information about how Respondus Lockdown Browser + Monitor works.
    - Supported Devices: http://edtech.com.edu/devices-supported-by-respondus-lockdown-browser/
    - Introduction: https://youtu.be/XuX8WoeAycs
    - Installation Instructions for Windows: https://youtu.be/pKvcE3oZF2I
    - Installation Instructions for Mac: https://youtu.be/wW8kTxzaQBs
    - Download Respondus LockDown Browser: https://download.respondus.com/lockdown/download.php?id=138331997

Determination of Course Grade

Lecture Grade (500 points):

1. Lecture exams (400 points) – A total of four lecture exams will be given throughout the semester.
2. Homework (100 points) –Mastering Biology homework assignments will be given throughout the semester.

Laboratory Grade (350 points):

1. Lab Daily Grade (150 points) – Each lab will have activities to be completed for a portion of your lab daily grade.
2. Lab Practical (200 points) – One lab practical toward the end of the semester and will cover material from each lab.

Final Exam (150 points):

The final exam is comprehensive and will cover ALL of the material presented in lecture throughout the semester.

Grading Formula:

Lecture Grade (500 points)	
Lecture Exams	400 points
Homework	100 points
Laboratory Grade (350 points)	
Lab Daily Grade	150 points
Lab Practical	200 Points
Final Exam (150 points)	
Comprehensive Final Exam	150 points
Total Possible Points	**1000 Points**

Grading Scale:

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

Letter Grade	Number of Points
A	900 – 1000
B	800 – 899
C	700 – 799
D	600 – 699
F	0 – 599

Lab Science Policy: This course consists of both a lecture and laboratory grade 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.

Make-Up Policy:

- **Online Assignments:** Ample time is given for each online assignment. Failure to meet these deadlines will result in a ZERO for the assignment and no extra time will be allowed to make-up the assignment. In the event of an internet outage or other internet issue, at the discretion of your professor, your assignment may be reset to allow you to take it again. Contact must be made with your professor within 24 hours of the problem.
- **Labs**: There are NO MAKE-UP LABS. Arriving late to lab will 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 any notes from a classmate.

Attendance: Attendance is based on completion of assignments for each week. Students are expected to attend all on campus class sessions as listed on the course calendar.

- **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.

Course Communication: ALL electronic communication with the professor must be through COM email. Due to FERPA restrictions, faculty are unable to share any information about performance in the class through other electronic means.

Student Learner Outcomes: These specific outcomes have been chosen to demonstrate that the core competencies are being met during course instruction.

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.		
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.		
9. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.	Empirical and Quantitative Skills	Lab Activities
10. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.	Critical Thinking	Lab Activities
11. Communicate effectively the results of scientific investigations.	Communication (Written)	Lab Activities
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 Activities

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 Student 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. 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 disciplinary action. In addition, I am providing you with a link to a video on YouTube that correctly defines plagiarism, how to make proper citations and describes the proper use of paraphrasing. I would strongly urge you to look this over early in the course. Plagiarism video: https://youtu.be/Fw6NxvwP41U

Student Concerns: If a student has any questions or concerns about any aspect of the course, the student should contact the professor using the contact information previously provided. If, after discussing the concern with the professor, a student continues to have questions, the student may contact Sheena Abernathy, Chair of the Science Department at 409-933-8330 or sabernathy@com.edu.

Tentative Course Outline:

	Topic(s)	Reading Assignment(s)	Online Course Assignment(s)
1	Intro to Course Learning about Life	Read Syllabus Chapter 1	**Online Course Preparation Quiz and Discussion Board due 1/24 at 11:59pm**
	Lab Safety and Lab 1: Scientific Method **Group 1 On Campus 1/21**		**Lab Safety & Lab 1 due 1/31 at 11:59pm**
2	Essential Chemistry for Biology	Chapter 2	
	Lab Safety and Lab 1: Scientific Method **Group 2 On Campus 1/28**		**Lab Safety & Lab 1 due 1/31 at 11:59pm**
3	The Molecules of Life	Chapter 3	**Mastering Biology Ch 1-3 due 2/7 at 11:59pm**
	Lab 2: pH **Group 1 On Campus 2/4**		**Lab 2 due 2/14 at 11:59pm**
4	A Tour of the Cell	Chapter 4	**EXAM 1: Ch 1-3 due 2/14 at 11:59pm**
	Lab 2: pH **Group 2 On Campus 2/11**		**Lab 2 due 2/14 at 11:59pm**
5	The Working Cell	Chapter 5	
	Lab 3: Biomolecules **Group 1 On Campus 2/18**		**Lab 3 due 2/28 at 11:59pm**
6	Cellular Respiration: Obtaining Energy from Food	Chapter 6	**Mastering Biology Ch 4-6 due 2/28 at 11:59pm**
	Lab 3: Biomolecules **Group 2 On Campus 2/25**		**Lab 3 due 2/28 at 11:59pm**
7	Photosynthesis: Using Light to Make Food	Chapter 7	**EXAM 2: Ch 4-6 due 3/7 at 11:59pm**
	Lab 4: Microscopy & Lab 5: Cells **Group 1 On Campus 3/4**		**Lab 4 & Lab 5 due 3/14 at 11:59pm**
8	The Structure and Function of DNA	Chapter 10	
	Lab 4: Microscopy & Lab 5: Cells **Group 2 On Campus 3/11**		**Lab 4 & Lab 5 due 3/14 at 11:59pm**
9	Cellular Reproduction: Cells from Cells	Chapter 8	**Mastering Biology Ch 7, 8, 10 due 3/28 at 11:59pm**
	Lab 6: Cell Membranes		**Lab 6 due 3/28 at 11:59pm**
10	Patterns of Inheritance	Chapter 9	**EXAM 3: Ch 7, 8, 10 due 4/11 at 11:59pm**
	Lab 7: Enzymes		**Lab 7 due 4/11 at 11:59pm**
11	How Genes Are Controlled	Chapter 11	
	Lab 8: Respiration/Fermentation & Lab 9: Photosynthesis **Group 1 On Campus 4/8**		**Lab 8 and Lab 9 due 4/18 at 11:59pm**
12	DNA Technology	Chapter 12	**Mastering Biology Ch 9, 11, 12 due 4/18 at 11:59pm**
	Lab 8: Respiration/Fermentation & Lab 9: Photosynthesis **Group 2 On Campus 4/15**		**Lab 8 and Lab 9 due 4/18 at 11:59pm**
13	Lecture Exam 4		**EXAM 4: Ch 9, 11, 12 due 4/25 at 11:59pm**
	Lab 10: Cell Division		**Lab 10 due 4/25 at 11:59pm**
14	How Populations Evolve	Chapter 13	**W-day April 26th** **Mastering Biology Ch 13 due 5/2 at 11:59pm**
	Lab 11: Genetics & Lab 12: DNA and Biotechnology		**Lab 11 and Lab 12 due 5/2 at 11:59pm**
15	**Lab Practical**		**Lab Practical Labs 1-12 due 5/7 at 11:59pm**
16	**FINAL EXAM**		**FINAL EXAM (Cumulative) Exams 1-4 due 5/12 at 11:59pm**

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the professor. 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/student-handbook *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the professor'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 career. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor. https://www.com.edu/student-services

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center in the student center. https://www.com.edu/counseling/disability-services

Counseling Statement: Any student that needs counseling services should contact Holly Bankston in the Student Success Center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to set up an appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis. https://www.com.edu/counseling

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: Students may withdraw from the course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the professor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last day to withdraw is April 26, 2021.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the professor. 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 professor.

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. Professors have been asked to refer a student to the program throughout the semester if the student is having difficulty completing assignments or has poor attendance. If a student is referred to the Early Alert Program, the student will be contacted by someone in the Student Success Center who will schedule a meeting with the student to see what assistance the college can offer in order for the student to meet their academic goals.

COVID-19 Statement: All students, faculty and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at www.com.edu/coronavirus. Students are required to watch a training video, complete the self-screening, and acknowledge the safety guidance at: www.com.edu/selfscreen. In addition, students, faculty, and staff must perform a self-screening prior to each campus visit. Finally, students, faculty, or staff who have had symptoms of COVID-19, received a positive test for COVID-19, or have had close contact with an individual infected with COVID-19 must complete the self-report tool.

Course Policies & Guidelines

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. 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 the course.

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 considered to be a disruption. Please be respectful of your fellow students and the professor by adhering to the following:

1. For on campus instruction: put away all electronics. Certain devices can be used to view content on the internet; however, this is at the discretion of the professor.
2. For online instruction: *During online exams, no study materials or additional devices will be allowed. If a student utilizes outside materials during an exam, the student will earn 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 professor. Repeated incidents may result in automatic withdrawal from the class. Students who display this conduct will be removed from the class and required to meet with Dr. Kimbark, Dean of Students, before being allowed to return to class if the professor allows it.

Course Evaluations: Course evaluations for students to complete will be open towards the end of the semester. Be sure to take this opportunity to rate the course. The professor is not able to view student evaluations until after the semester has ended and grades have been entered. Student evaluations matter and are reviewed by the professor to continuously improve this course.