



**BIOL 1407 102 CL**  
**Biology for Majors II**  
**Spring 2023**  
**TR 1:30-4:20, STEAM 301**

**Instructor Information:**

**Christopher Hall**

E-mail: [chall23@com.edu](mailto:chall23@com.edu)

Office Telephone: (409)933-8328

**Office Hours and Location:**

**Office Hours**

Mon & Wed – 9-11

Tues 12:30-1:30

Thurs 9-9:30

Friday 8 – 10 (online)

**Office: STEAM 325-37**

Course Communication: Email preferred method of communication. Office, Lab, Office Phone during office hours.

**Course Information**

**Required Textbook:**

- *Campbell Biology* e-text with Mastering Biology 12<sup>th</sup> edition. You may also purchase any *recent* edition of Campbell Biology as long as you have an access code for the Mastering Biology content. The Mastering content will be available thru Brightspace D2L, in the Dashboard. You will need to finalize your purchase by following the tab on D2L.
- Textbooks and/or courseware will be available through VitalSource digitally. Cost of the course materials for this section will be \$68.75. The course materials will be available on the first day of class. Do not opt out of this as you will not be able to access mastering assignments or your e-text. 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, if you do not receive that email then let me know.*** Let me know as soon as possible if you cannot access content, after completing registration.

**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.

**Course Requirements**

**Required Online Resources**

- COM Brightspace D2L: <http://com.brightspace.com>. ***COM Brightspace D2L will be used for online activities, accessing your lab handouts, reviews, and other course materials.*** In addition, Brightspace D2L will allow students to communicate with each other and the instructor. Many class resources will be available through Brightspace D2L. Please use the handout given to help with accessing online resources thru Brightspace D2L. If you have any questions regarding course access or training, please contact the Distance Education department ([www.com.edu/de/index.cfm](http://www.com.edu/de/index.cfm)) at extension 8476.
- Mastering Biology Course – **Login will be completed through Brightspace D2L**  
Each student must purchase an access code to complete the assignments through the Mastering Biology website. These access codes may be purchased at the COM Bookstore or through the Mastering Biology website which is linked to your Brightspace course page. The cost for the Mastering Biology content alone is around \$70 and for Mastering Biology and the e-text. ***YOU MUST OPT IN***. You will have several assignments on Mastering Biology for each topic covered.

**Required Materials**

- Scantrons (5) – 888E. Purchase before the first exam. I will not provide these during exams.
- Computing resources and reliable internet.

**Suggested/Recommended Texts & Other Readings and Supplies**

Photographic Atlas for Biology

Colored pencils/pens to make notes and drawing in class/lab.

Camera to photograph specimens and lab activities, not required, but would be very useful.

**Course Description**

The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Prerequisites: CPT Reading 78/READ 0370. Successful completion of BIOL 1406 is recommended.

## **Determination of Course Grade/Detailed Grading Formula:**

### **Lecture Grade (810 points):**

1. Lecture exams (400 points) – A total of four exams will be given throughout the semester (see Tentative Course Outline). The material will be from your lectures, chapter reviews, and your textbook. Each exam will be worth 100 points. You may substitute your lowest exam grade with your Comprehensive Final if it is higher than your lowest score.
2. Additional Assignments (120 points) – There will be (6) assignments focusing on groups of organisms, with questions and activities related to that topic. Each is worth 20 points. Due dates are provided with the assignments.
3. Chapter Reviews (80 points) - There will be chapter reviews over the topics covered during the course. These reviews will be worth 20 points each. Due dates are provided with the assignments listing.
4. MasteringBiology (~110 points) - For each topic covered in lecture, you will have assignments using Mastering Biology. They are usually around 10 points each.
5. Comprehensive Final Exam (100 points) – Comprehensive Final Exam that will cover all topics for the semester.

### **Laboratory Grade (540 points):**

1. Labs (11 labs = 220 points) – You will be required to complete and submit all labs related to the topics that we are covering during the semester. Each lab has a corresponding worksheet to be completed related to anatomy, distinguishing characteristics, etc. Due dates will be in the course calendar and correspond to lab meetings. 20 points each. **You may not submit any lab that you missed in person. If you do not attend the lab, you will not be allowed to turn in the lab at a later time.**
2. Lab Attendance and Participation (40 points) – Based on the semester as a whole, the student shows good attendance and is engaged in the activities, they will receive the full credit. The deductions in points are up to the Instructor's discretion.
3. Lab Midterm and Final (200 points) – There will be a comprehensive midterm covering the first 6 labs and a lab final that will cover the rest of the labs, 7-11. It will be in the middle and at the end of the semester.
4. Oral Presentations (40 points) - Students will be placed in groups evenly and given topics related to the semester. The groups will perform research in the library, online, etc. They will compile their information, present it to the others in the course at the end of the semester.
5. Lab Quizzes – (40 points) – There will 4 or 5 quizzes given during lab period that covers the materials from the previous labs. This is just a tool to ensure retention and comprehension of previously covered materials.

## **Determination of Course Grade:**

### **Lecture Grade (810 points)**

Lecture exams	400 points
Additional Assignments	120 points
Chapter Reviews	80 points
MasteringBiology	~110 points
Comprehensive Final	100 points

### **Laboratory Grade (540 points)**

Labs (11 labs/20 pts each)	220 points
Lab Attendance & Part	40 points
Midterm and Lab Final	200 points
Oral Presentations	40 points
Lab Quizzes	40 points

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**Total Possible Points**

**1350 Points**

## TENTATIVE COURSE OUTLINE

	DAY	Topic(s)	Readings	Course Assignment(s)
1	1/17	No Lab this week.		
	1/19	Evolution of Populations Origin of Species, History of Life on Earth, Human Evolution	<ul style="list-style-type: none"> <li>• Cover syllabus</li> <li>• Intro to Course &amp; Lab Safety Chapter 23</li> <li>• Chapter 24, 25, and 34.7</li> </ul>	
2	1/24	Lab 1: Hominid Skull Activity Phylogenetics (Classification) Lab		
	1/26	Origin of Species – Cont'd and Ecology  Phylogeny and the Tree of Life	<ul style="list-style-type: none"> <li>• Ch 24,25, and 34.7</li> <li>• Selected portions from Chapters 52, 54-56</li> <li>• Ch 26</li> </ul>	<ul style="list-style-type: none"> <li>• <b>5 scantrons!!!</b></li> <li>• Mastering HW 1</li> </ul>
3	1/31	Lab 2 : Prokaryotes		
	2/2	<b>EXAM 1</b> Ch 23,24,25,26,34.7, Selected portions from Chapters 52, 54-56 Prokaryotes lecture	<ul style="list-style-type: none"> <li>• Chapter 27</li> </ul>	
4	2/7	Lab 3: Protists		
	2/9	Protist lecture	<ul style="list-style-type: none"> <li>• Chapter 28</li> </ul>	<ul style="list-style-type: none"> <li>• Mastering HW 2</li> </ul>
5	2/14	Lab 4: Seedless Plants		
	2/16	<b>EXAM 2</b> Ch 27, 28	<ul style="list-style-type: none"> <li>• Chapter 29</li> </ul>	<ul style="list-style-type: none"> <li>• Mastering HW 3</li> </ul>
6	2/21	Seedless Plants lecture Lab 5: Seed Plants		
	2/23	Seed Plants	<ul style="list-style-type: none"> <li>• Chapter 30</li> </ul>	<ul style="list-style-type: none"> <li>• Mastering HW 4</li> </ul>
7	2/28	Lab 6: Plant Physiology		
	3/2	Plant Form and Function	<ul style="list-style-type: none"> <li>• Chapter parts of 35 and 39</li> </ul>	<ul style="list-style-type: none"> <li>• Mastering HW 5</li> </ul>
8	3/7	<b>LAB PRACTICAL 1</b>		
	3/9	<b>EXAM 3</b> Ch 28, 29, 30, 35, 39 Fungi lecture	<ul style="list-style-type: none"> <li>• Chapter 31</li> </ul>	
9	3/14	<b>Spring Break – No Labs</b>		
	3/16	<b>Spring Break – No Lectures</b>		<ul style="list-style-type: none"> <li>• Mastering HW 6</li> <li>• <b>Mastering 1 -5 due 3/20</b></li> </ul>
10	3/21	Lab 7: Fungi		
	3/23	Fungi Lecture cont'd Intro to Animals Animals: Porifera-Ctenophora	<ul style="list-style-type: none"> <li>• Chapter 32 and 33</li> </ul>	<ul style="list-style-type: none"> <li>• Mastering HW 7</li> <li>• <i>Groups chosen for presentation</i></li> </ul>
11	3/28	Lab 8: Creatures of the Sea (Porifera – Ctenophora)		
	3/30	Animals: Lophotrochozoans	<ul style="list-style-type: none"> <li>• Chapter 33 cont'd</li> </ul>	<ul style="list-style-type: none"> <li>• Mastering HW 8</li> <li>• <i>Presentation Topic Due</i></li> </ul>
12	4/4	Lab 9: Lophotrochozoans		
	4/6	<b>EXAM 4</b> Ch 31, 32, 33 Animals: Ecdyzoans	<ul style="list-style-type: none"> <li>• Chapter 33 cont'd</li> </ul>	<ul style="list-style-type: none"> <li>• Mastering HW 9</li> </ul>
13	4/11	Lab 10: Ecdyzoans		
	4/13	Deuterostomes	<ul style="list-style-type: none"> <li>• Chapter 34</li> </ul>	<ul style="list-style-type: none"> <li>• Mastering HW 10</li> </ul>
14	4/18	Lab 11: Deuterostomes		
	4/20	Animal Behavior	Select parts of Chapter 40 and 51	
15	4/25	<b>LAB PRACTICAL 2</b>		
	4/27	<b>PRESENTATIONS</b>		
16	5/2	<b>COMPREHENSIVE FINAL EXAM</b> (All Mastering Assignments 6-10 are due on 04/28, by midnight)		

### Grading Scale:

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

Letter Grade	Average (%)
A	90 - 100
B	80 – 89
C	70 – 79
D	60 – 69
F	0 – 59

### Make-Up Policy:

- **Lecture Exams:** Should you anticipate an absence on an exam day you must contact your instructor by email or in person PRIOR to the absence. Your situation will be evaluated by your instructor and at the discretion of your instructor, 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 illness. You must provide legitimate proof for your excuse in the case of missing an exam. Only one make-up exam is allowed during the semester. *The make-up exam MUST be taken at the end of the semester, after you complete all your other course work.* No lab exams can be made up. If you have a legitimate excuse, as outlined above, then we will discuss your options should the situation arise. *If you show up more than 30 minutes late for any exam, then you will not be allowed to take that exam and will be considered absent and you will receive a (0) zero on that exam.*
- **Assignments:** 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, make arrangements with your instructor in order to avoid missing any work. If you miss lab, you may not submit that lab at a later date without an excused absence.
- **Online Assignments:** Ample time is given for each student to complete the online assignments (Mastering assignments, etc.). 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 instructor, your assignment may be reset to allow you to take it again. Contact must be made with your instructor 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 contact your instructor to inform them of your absence.

### 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 show up later than 30 minutes for either lecture or lab, you will be marked as absent. *If you miss more than (6) meetings during the semester, you may be dropped from the course.* If you do have to miss class, course materials are 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.

### Withdrawal Policy:

**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 1<sup>st</sup> 8-week session is March 1. The last date to withdraw from the 16-week session is April 24th. The last date to withdraw for the 2<sup>nd</sup> 8-week session is May 3.

If you are unable to successfully complete the course requirements, you may wish to drop this class. It is **YOUR** responsibility to initiate a request for withdrawal from any course. It is in your best interest to visit with me before making that decision. However, if you decide to drop this class, it is **YOUR** responsibility to withdraw by **April 24th**. You are still enrolled in the course until you have submitted this form. If you do not withdraw by this date, you will receive a grade of “0” (zero) for all remaining work that you did not complete, which may result in a grade of “F” for the class. Students are only permitted to withdraw six times during their college career by State law.

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.

**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.

**Early Alert Program:**

The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention is 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 for you to meet your academic goals.

**Disclaimers/Additional Policies:**

**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/Questions Statement:**

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 Mrs. Sheena Abernathy at ext. 8330, and [sabernathy@com.edu](mailto:sabernathy@com.edu)

**Student Learner Outcomes:**

Student Learner Outcomes	Core Objectives	Assessed Via this Assignment
1. Students will be able describe and demonstrate knowledge of modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.		
2. Students will demonstrate the ability to describe and distinguish between phylogenetic relationships and classification schemes.		
3. Students will demonstrate the ability to identify major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptation, evolutionary history, and ecological significance.		
4. Students will be able to describe basic animal physiology and homeostasis as maintained by organ systems.		
5. Students will demonstrate the ability to compare different sexual and	Critical Thinking	In class activity

asexual life cycles noting their adaptive advantages.		
6. Students will be able to illustrate the relationship between major geologic change, extinctions, and evolutionary trends.	Empirical and Quantitative Skills	Case Study
7. Students will 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
8. Students will demonstrate their ability to use critical thinking and scientific problem-solving to make informed decisions in the laboratory.	Critical Thinking	Lab Activity
9. Students will demonstrate their ability to communicate effectively the results of scientific investigations.	Communication skills (CS1)	Presentation
10. Students will demonstrate the ability to work effectively with others to support and accomplish a shared goal, while recognizing and respecting different viewpoints.	Team Work	Presentation

**QEP (Quality Enhancement Plan):**

This class has been selected to include oral communication in its curriculum, as part of College of the Mainland’s Quality Enhancement Plan (QEP) on oral communication across the curriculum. A small percentage of classes will also be video recorded for institutional purposes.

**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 [Student Handbook 2022-2023 v4.pdf \(com.edu\)](#). *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](mailto:klachney@com.edu). The Office of Services for Students with Disabilities is located in the Student Success Center.

**Counseling Center Website:** <http://www.com.edu/student-services/counseling.php>

**Counseling Statement:** Any student that is needing counseling services is requested to please contact Kimberly Lachney at 409-933-8919 or [klachney@com.edu](mailto:klachney@com.edu) Counseling services are available on campus in the student center for free and students can also email [counseling@com.edu](mailto:counseling@com.edu) to setup their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

**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](mailto:deanofstudents@com.edu) or [communityresources@com.edu](mailto:communityresources@com.edu).

## 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 phone use during class is not permitted. If I see repeated violations of this rule, you will be asked to leave the class and you will not get credit for that day's work. Laptops are ONLY permitted during class to take notes. *First offense:* a warning and you will be allowed to stay in class.
  - a. *Additional Offenses:* you will be asked to leave the class/lab and receive an absence for the day. Repeated violations of this policy may result in your removal from the course.
  - b. *During exams, no electronics will be allowed out. 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. Due to safety reasons, friends, spouses, and children are not allowed in lab.
3. 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 required to meet with Kris Kimbark, Associate VP for Student Success and Conduct, before being allowed to return to class if the instructor allows it.

## Success Tips for Students:

### Build Rapport

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that they can help you find a solution.

## Success Tips for Students:

### 10 Tips to Succeed in Class

1. **Come to class.** In some courses all you have to do is read the book; that's not the case here. The lecture will key you in to what is important and what isn't; it will also provide a framework to stuff all the facts into. If you must miss class, get the notes from a fellow student or the web, and then go over the notes with someone who was present at the live lecture.
2. **Take notes.** Everything that really matters will be discussed in class; the book is just for back up. The PowerPoints are posted online to help you fill in anything you missed. Taking notes helps you pay attention in class and remember the material.
3. **Form a study group or partnership.** Don't try to do it alone. Study groups are generally good because they help you go over the material, give you an opportunity to practice explaining your answers, and provide moral support.
4. **Do the problems.** Seriously and carefully. Do the problems at the back of each chapter and in Mastering Biology. In addition, Mastering Biology has a Study Area that you can take practice quizzes and watch videos and animations.
5. **Make diagrams,** pictures, summary charts, concept maps, etc. The ones in the book (and the ones handed out in class) may be good, but for best results, you should make your own.
6. **Keep up.** The current material is always based on what came before, so once you get behind it is very difficult to catch up. Some students find it is very helpful to quickly look over the notes of the previous lecture right before the current one.
7. **Read** one of the texts before class if the material is new to you. It is very hard to follow the lecture if every word and concept is unfamiliar.
8. **Ask questions.** If you don't understand something, ASK. The more effort you put into asking questions, the more you will get out of the answers.
9. **Master the vocabulary.** The stress in this course may be on *using* the vocabulary, but you won't get anywhere until you learn it first. So try to master all new terms as fast as possible.
10. **See Me.** Talk to me if you're having trouble in the course either in person or by email. Don't let things pile up. Address them early.

### Links and Resources on how to Succeed in Biology

<http://courses.ttu.edu/biol1403-mdini/Regular/howtostudybiology.html>

<http://www.elsevier.com/connect/11-pointers-for-college-success-from-a-professor-and-dad>

The “A” Game book (available in the COM bookstore)

Get Ready for Biology book (can be found online at Amazon, Barnes & Noble, etc)

### **The Tutoring Center:**

The Tutoring Center provides free tutoring services to students, staff and faculty seeking assistance for writing, reading and oral presentations for academic and non-academic assignments/projects. Located in the Industrial Careers Building (ICB), Room 109, the center provides face-to-face and online tutoring sessions in a welcoming environment. Appointments can be made in person, or on the center scheduler at [com.mywconline.com](http://com.mywconline.com), or by clicking the SRWC icon on the COM website.

Hours:

Monday 8:00 AM – 6:00 PM face-to-face and online 6:00 PM – 8:00 PM online only

Tuesday 8:00 AM – 6:00 PM face-to-face and online 6:00 PM – 8:00 PM online only

Wednesday 8:00 AM – 6:00 PM face-to-face and online 6:00 PM – 8:00 PM online only

Thursday 8:00 AM – 6:00 PM face-to-face and online 6:00 PM – 8:00 PM online only

Friday 8:00 AM – 12:00 PM face-to-face and online

Saturday 9:00 AM – 1:00 PM online only

Sunday CLOSED

**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.