



BIO 103 Principles of Biology I (Dual Enrollment-4th Period)

Fall 2026

4 Credit Hours

Course Instructor

Mrs. Natalie Warren

Biology Instructor

Office: Room SC-3 (PHS)

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Phone: (334)365-8804 (front office)

Office Hours: Office hours will be held from 8:45-9:15 AM Wednesdays during Lion Period by appointment only and Monday through Friday 3:00-3:30 PM **by appointment only**.

Course Description: This is an introductory course for both science and non-science majors. It covers physical, chemical, and biological principles common to all organisms. These principles are explained through the study of cell structure and function, cellular reproduction, basic biochemistry, cell energetics, the process of photosynthesis, and Mendelian and molecular genetics. Also included are the scientific method, basic principles of evolution, and an overview of the diversity of life. A 120-minute laboratory per week is required.

Course Delivery Description In-person: This course is delivered 100% in person. This class meets every assigned class period day Monday, Tuesday, Thursday, and Friday in SC-3 unless a school holiday causes the schedule to change. Changes will be announced.

Course Prerequisites Regular Admission Status

Required Course Materials

1. Lab Manual – Exploring Biology in the Laboratory by Pendarvis and Crawley, 3rd Edition (ISBN# 9781617318382)
2. Textbook – Biology, McGraw-Hill by Johnson and Raven, 13th Edition (ISBN# 978-1265128845)
3. Sharpen (App)- Download this free McGraw-Hill app using your school email address. It is an excellent study resource.

These may be purchased on your own or through the bookstore. They must be purchased by the end of the first week of class at the latest. **These are required materials- not optional.** The textbook may be left at home, but the lab manual must be brought to class daily.

Central Alabama Community College uses Honorlock as our College's proctoring service. This is free for students. Students are not required to purchase the software and are not charged additional fees for this service. Honorlock will be required for this course. You must have access to a computer that has Honorlock installed.

Technology Requirements

Central Alabama Community College uses Canvas Learning Management System. Canvas is a cloud-based program that allows instructors to build content for course delivery online. This allows students to access the course materials, to submit assignments, and to view grades online. Canvas supports the latest two versions of the most popular web

browsers (Firefox, Chrome, Edge). If you have issues in one browser, always try another to see if you have the same issue. Please note that Internet Explorer is no longer a supported browser. If you have Windows 10 computer, the default browser is Edge, which is a supported browser.

- *Access to a computer and a stable internet connection*
- *High-speed internet connection (DSL or cable modem, preferred)*
- *Headset with microphone or computer with built-in speakers and microphone*
- *Microsoft Office products (e.g., MS Word, PowerPoint, Excel, etc.) available via a Microsoft 365 account*

Student Learning Outcomes (SLOs)

At the completion of the course, the student will be able to:

1. Apply the scientific method in theory and laboratory
2. Differentiate and identify cell types based on taxonomy, including structural and functional characteristics
3. Differentiate between the biological macromolecules and how they relate to the levels of biological organization.
4. Describe the process of cellular division, including sexual and asexual reproduction.
5. Describe how cells transform energy necessary for life
6. Identify the basic principles of gene theory and inheritance and how they apply to natural selection and evolution.
7. Demonstrate and apply proper use of laboratory techniques and equipment.

Course Outline and Schedule

*Dates are subject to change. Changes will be announced in class and under announcements in Canvas.

Date	Topics & Assignments
Monday, August 17	Orientation to Course Attendance Verification Quiz - Opens Monday, August 17, at 12:00 am and closes Wednesday, August 19, at 11:59 PM. This quiz uses Honorlock. Since this is a traditional (in-person) course, you MUST physically attend class and complete the Attendance Verification quiz online by August 19. If you do not attend class <u>or</u> complete the quiz, you will be dropped for non-attendance.
EXAM ONE Introductory Chemistry Biomolecules	EXAM ONE (Chapters 1-3) Introductory Quiz Chemistry Quiz Biomolecules Quiz
Tuesday, August 18	Orientation to Course (syllabus, lab safety, etiquette, expectations, etc.) Lab: Lab Equipment practice - worksheet on Canvas
Thursday, August 20	Lecture: Introductory
Friday, August 21	Lab: Scientific method practice-worksheet on Canvas
Monday, August 24	Quiz 1: Introductory Quiz Lecture: Chemistry
Tuesday, August 25	Lab: microscope lab- worksheet on Canvas; email me for an alternative assignment if absent Lecture: Biomolecules

Date	Topics & Assignments
Thursday, August 27	Quiz 2: Chemistry Quiz Lab: pH lab (pages 53-55 in the lab manual; pages 57-58 if you are absent)
Friday, August 28	Lecture: Biomolecules Lecture Review
Monday, August 31	Lab: Biomolecules lab (pages 74-75 in the lab manual; pages 77-78 if you are absent)
Tuesday, September 1	Quiz 3: Biomolecules Quiz Lecture Review
Thursday, September 3	Exam One -Introductory, Chemistry, Biomolecules
EXAM TWO Cells Transport Energy/Enzymes	EXAM TWO (Chapters 4-6) Cells Quiz Transport Quiz Energy & Enzymes Quiz
Friday, September 4	Lecture: Cells HW: Cell labeling practice - worksheet on Canvas
Monday, September 7	NO CLASS-Labor Day Holiday
Tuesday, September 8	Quiz 1 Cells Lab: Cell slides lab (pages 81-94 in the lab manual; slides, magnification, and descriptions only; Use PPT if completing from home.)
Thursday, September 10	Lecture: Transport HW: Cell Transport activity - worksheet on Canvas
Friday, September 11	Lab: Cell Transport Lab
Monday, September 14	Quiz 2 Transport Lecture: Energy and Enzymes
Tuesday, September 15	Complete Energy and Enzymes Lecture Lab: Enzymes lab (page 99 in the lab manual; complete pages 107-108 if absent)
Thursday, September 17	Quiz 3 Energy and Enzymes Exam 2 Review
Friday, September 18	Exam 2 Review
Monday, September 21	Exam Two: Cells, Transport, Energy/Enzymes
EXAM THREE Photosynthesis Cell Respiration Cell Division	EXAM THREE (Chapters 7-8, 10-11) Photosynthesis Quiz Cellular Respiration Quiz Cell Division Quiz

Date	Topics & Assignments
Tuesday, September 22	Lecture: Photosynthesis Lab: Pigment Chromatography lab (pages 126-128 in the lab manual; complete pages 133-134 if absent)
Thursday, September 24	Quiz 1 Photosynthesis Lecture: Cellular Respiration
Friday, September 25	Lab: Fermentation lab (pages 137-138 (procedure 1) in lab manual; if absent, complete pages 145-146)
Monday, September 28	Quiz 2 Cellular Respiration Lecture: Cell Division
Tuesday, September 29	Finish Lecture Cell Division Lab: Mitosis/Meiosis slide lab (pgs 150-153 lab manual)
Thursday, October 1	Quiz 3 Cell Division
Friday, October 2	Lab: stages of (starfish) development slides- worksheet on Canvas; use PPT if absent
Monday, October 5	Exam 3 Review
Tuesday, October 6	Exam Three: Photosynthesis, Cellular Respiration, & Cell Division
EXAM FOUR Genetics DNA Evolution	EXAM FOUR CANVAS (Chapters 12-15, 20-21) Genetics Quiz DNA Quiz Evolution Quiz
Thursday, October 8	Lecture: Genetics
Friday, October 9	Lecture: Genetics Continued (PHS early release day)
Week of October 14	Lab: Genetics Problems- worksheet on Canvas Lab: Pedigrees- worksheet on Canvas Quiz 1 Genetics Lab: DNA Extraction (pages 203-204 in lab manual; complete pages 207-208 if absent)
Monday, October 19	Lecture: DNA
Tuesday, October 20	Quiz 2 DNA Quiz Assignment: Genetic Code—worksheet on Canvas
Thursday, October 22	Lecture: Evolution
Friday, October 23	Lab: Natural Selection Simulation – On Canvas
Monday, October 26	Quiz 3 Evolution Exam 4 Review
Tuesday, October 27	Exam Four: Genetics, DNA, Evolution
EXAM FIVE Taxonomy Microbes Protists & Fungi Ecology	EXAM FIVE CANVAS (Chapters 23, 26-28, 31, 54-55) Taxonomy Quiz Microbes Quiz Protist & Fungi Quiz Ecology Quiz

Date	Topics & Assignments
Thursday, October 29	Lecture: Taxonomy
Friday, October 30	Lab: Dichotomous Keys activity- worksheet on Canvas
Monday, November 2	Quiz 1 Taxonomy Lecture: Microbes
Tuesday, November 3	Lab: Taxonomy, classification, and dichotomous keys – worksheet on Canvas
Thursday, November 5	Quiz 2 Microbes Lecture: Protists & Fungi
Friday, November 6	Lab: Protist & Fungi Slides- worksheet on Canvas; Use PPT if absent.
Monday, November 9	Quiz 3 Protist and Fungi Lecture: Ecology
Tuesday, November 10	Lab: Food Web practice – worksheet on Canvas Lab: Ecology- worksheet on Canvas
Friday, November 13	Quiz 4 Ecology
Monday, November 16	Exam 5 Review
Tuesday, November 17	Exam Five: Taxonomy, Microbes, Protists and Fungi, Ecology
Thursday, November 19	Lab Exam Review
Friday, November 20	Lab Exam
Week of November 30	Final Exam Review
TBA – Week of December 7	Final Exam– in class

*The instructor reserves the right to make modifications to the course syllabus to meet the specific needs of the class as a whole. This includes but is not limited to modifying test & activity dates. Exams may also be given online via Canvas using Honorlock. In-class assignments may be completed in class or at home, pending time constraints.

Course Activities, Assessments, & Interactions

This course consists of a sequence of activities, assessments, and interactions to support you in achieving the Student Learning Outcomes (SLO) for this course. You may engage in weekly activities, discussions, research, readings, quizzes, papers, and exams. The primary course activities required to achieve the Student Learning Outcomes (SLO) are described below.

Course Requirements/Assignments

- Quizzes
- Exams
- Lab Exam
- Class assignments
- Labs
- Final exam

Grading Scale

Assessment Type	Assessment	Percentage
Canvas Quiz		10%
	Quizzes	
Lab		10%
	Lab Activities/Assignments	
Exam		50%
	Exam One	
	Exam Two	
	Exam Three	
	Exam Four	
	Exam Five	
Lab Exam		10%
	Lab Exam	
Final Exam		20%
	Final Exam	
		100%

A- 90%-100%

B- 80%-89%

C- 70%-79%

D- 60%-69%

F- below 60%

Note: You must have a 60% or higher to receive credit for the course. You must have a 70% or higher to progress to BIO 201.

Additional Policies (Instructor Specific)

◆ Quizzes

- Canvas quizzes are open the day they are assigned and close before the next class meeting. No late submissions—**no exceptions**.

◆ Labs & Classwork

- Lab grades include in-class labs, computer labs, and Canvas assignments.
- Due dates are posted in Canvas at the start of the semester. Submit all assignments directly in Canvas. Do not submit through email. Students are encouraged to retain their hard copy.
- Submit files as .doc, .docx, or .pdf, and combine all pages into one file. These can be created using the Notes app on iPhones or free downloadable apps such as CamScanner, Genius Scan, etc.
- On lab days, please be sure to return all materials to their appropriate places, clean up your area thoroughly, and dispose of all materials as directed before leaving. Points may be deducted for non-compliance and not wearing appropriate lab clothing and shoes.
- Students are expected to follow all lab rules as outlined in the lab safety contract. CACC, PHS, or the instructor will be held liable for any injuries that may result from the failure to follow these rules/guidelines. A violation of lab safety may result in dismissal from the lab session and a zero for that day's work.

◆ Make-Up Work & Absences

- Students are allowed to make up tests with approved documentation and up to three make-up labs/classes per semester, regardless of excuse status.
- Make-up tests require valid documentation and must be taken in person within 3 school days of the absence. Format may differ from the original test.
- Excused absences (when missing a test) include: school events, medical emergencies (with documentation), court dates, and certain caregiver situations. Travel, work, or undocumented illness are not approved absences. All

other absences will be evaluated on a case-by-case basis (life events, car trouble, etc.). Parent notes are not approved absences.

- Communicate with your instructor and submit documentation before the absence, when possible. If you know about an absence ahead of time, please make arrangements to make up your work/test before your absence. Work may be extended for unexpected emergencies.

◆ Bonus Work

- No individual extra credit will be given.

◆ Late Work

- No late work will be accepted. Double-check all submissions before the deadline.
- Computer or Wi-Fi issues are not grounds for extensions. Plan ahead, back up your work, and submit early.
- Two submission attempts are allowed per assignment. I grade the most recent.
- You may submit up to two attempts before the deadline. I will grade the most recent. No additional attempts will be accepted after the deadline, even for incomplete or incorrect submissions.

◆ Attendance & Punctuality

- Arrive on time.
- Tardy test takers will receive a zero unless excused, which can count as your one make-up.
- Email me ahead of time if you will be late. You may use this sparingly to be allowed entry. Students who abuse this or are excessively late (more than 10-15 minutes) may not be allowed entry.

◆ In-Class Behavior

- Cell phones and other personal (non-PHS issued) devices are not allowed. These should be powered off and stored out of site off your person.
- Headphones/ear buds/airpods, etc. are not allowed unless permission has been granted by the instructor.
- Participate respectfully—no side conversations or off-task tech use.
- Breaks will be provided as needed. Limit breaks during lecture. Students must use one of their issued passes.

◆ Course Materials

- The instructor will provide 1 copy of the notes or any required assignment handouts. If you lose yours, you must print on your own from Canvas.
- Submission of the syllabus quiz confirms your understanding and agreement to follow all course and lab policies. A hard copy of your signed syllabus and lab safety contract are required.

◆ Final Exam Policy

- If you miss one lecture exam, your final exam score may replace it.
- If you complete all lecture exams, the final may replace your lowest one.
- The final exam is mandatory and comprehensive and cannot replace the lab exam.

◆ Communication

- Check Canvas announcements/messages and CACC email daily.
- Allow 24 working hours for email replies (not including evenings, weekends, or holidays).
- Schedule office visits in advance, preferably during office hours.
- Please correspond using your CACC or Canvas email. Include your name, course name/section, and your specific request. Please make sure that your emails are polite and professional.

◆ Academic Integrity (Online Tests)

- All online tests must be taken independently with no outside help or resources.
- Honorlock will be used for monitoring. All footage will be reviewed by the instructor.
- Prohibited during testing:
 - Phones, smartwatches, notes, textbooks, websites, AI tools, or any other resource suspected of providing answers
 - Talking, being in a room with someone (unless testing during class), or leaving the room during testing
 - Testing in bed (If testing at home, please test at a table or desk ONLY), poor lighting, or partial video views
 - Looking off-screen repeatedly or for extended periods
 - Disconnecting from Honorlock during testing

- Additional protocols:
 - Please film yourself turning off your phone and putting it away during the room scan (if the test is taken at home).
 - Please film your ENTIRE workstation/lap during the room scan to confirm there are no outside materials.
- Violations may result in:
 - Zero on the test (not replaceable or dropped)
 - Having to retake a different version of the test
 - Academic report to the dean
 - Potential F in the course and further consequences

◆ Group Work vs. Cheating

- Collaboration is allowed when permitted, but each student must submit original work.
- Identical submissions will be treated as academic dishonesty.
- A zero may be given if academic dishonesty is suspected.

◆ Additional Notes

- Consult the College Catalog for grade appeal procedures.
- Canvas contains all course resources and grade updates.
- Copying from other students (in the same or other sections) is prohibited—grades may differ even when working together.
- Contact me early on with any concerns. Issues should be addressed with me before escalating through the appropriate chain of command.
- Treat classmates and faculty with respect. Disruptive or unprofessional behavior may result in removal from class and the filing of a formal conduct report to the Dean of Students.

Course & College Policies

Academic Integrity and AI

Central Alabama Community College is committed to the highest standards of academic honesty and integrity. Students should avoid cheating, plagiarizing, or committing other forms of academic dishonesty. This includes any use of Artificial Intelligence programs such as ChatGPT. Consequences for violations of academic integrity may include being required to retake an examination or resubmit an assignment, receiving an “F” on an exam or assignment, or receiving an “F” for the course.

Generative artificial intelligence (AI) should not be used to complete course assignments (e.g. by entering exam questions or assignment questions, writing prompts, etc.) unless an instructor authorizes their use. These tools should only be used with explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor. Students who are unsure of policies regarding generative AI tools are encouraged to ask their instructors for clarification. The unauthorized use of AI tools to complete course assignments is a violation of academic integrity.

Prohibited: The use of generative artificial intelligence (AI) tools (e.g., ChatGPT) is strictly prohibited in this course, even if properly attributed. The use of generative AI tools is considered plagiarism and will be handled in accordance with existing policies on student conduct and academic integrity.

Attendance

Students are expected to attend each class session, arrive on time, and stay for the entire class session. Faculty will record attendance from the first day of the semester. Excessive absences, regardless of the reason or circumstance, may interfere with the student’s ability to complete the course requirements. In such cases, the student should withdraw from the class before the last date to drop with a grade of “W”. Withdrawal from class may affect eligibility for federal financial aid. Students should contact the Financial Aid Office for information before withdrawing from a course.

Americans with Disabilities Act

Central Alabama Community College complies with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Students with disabilities who seek accommodations must make their request by contacting the Office of Disability Resources at lmitchell@cacc.edu or 256-378-2003. A faculty member will grant reasonable accommodations only upon written notification from the Office of Disability Resources. Students who are registered with Disability Resources are responsible for providing the instructor with a copy of their accommodation letter and scheduling a meeting with the instructor to discuss how their approved accommodations will apply to this course. Accommodations will not be implemented until the student and instructor have met to review the accommodation letter.

Continuity of Instruction

Inclement weather or other events beyond the control of the College that might cause risk or danger to students, faculty, and staff may occasionally result in changes to normal College operations, including cancellation of classes or events; the calendar schedule may be adjusted. Your instructor will have the course syllabus posted on Canvas and will also communicate via email. Make sure you check your email for guidance from your instructor.

Emergency Readiness

Schoolcast, email, and social media will be used by Central Alabama Community College during a campus emergency. Central Alabama Community College uses Schoolcast for desktop, laptop, tablet, and mobile devices to provide students with information, procedures, and links about what to do in the event of a variety of emergency situations that could occur on campus.

Netiquette

- Treat peers and instructor with respect in email or in any other online communication.
- Use clear and concise language.
- Remember that all college-level communication should have correct spelling and grammar.
- Be cautious when using humor or sarcasm as tone can be lost in an email or discussion post.

Statement on Discrimination/Harassment

It is the official policy of the Alabama Community College System and entities under its control, including all Colleges, that no person shall be discriminated against on the basis of any impermissible criterion or characteristic, including, without limitation, race, color, national origin, religion, marital status, disability, sex, age, or any other protected class as defined by federal and state law. (ACCS Policies 601.02 and 800.00)

Title IX

Central Alabama Community College is committed to the creation and maintenance of a safe learning environment for students and the College community. In accordance with federal policy, all College employees are required to report information related to discrimination and harassment which includes, but is not limited to, sexual assault, relationship violence, stalking, and sexual harassment. For this reason, if you tell an employee about a situation of sexual harassment, sexual violence, or other related misconduct, the employee must share that information with the College Title IX Coordinator. Central Alabama Community College's Title IX Coordinator is the Dean of Students, Cindy Entrekin, and she may be reached at centrekin@cacc.edu.