

BIOL 1306: Biology for Science Majors I

Class: 3 Semester Credit Hours

BIOL 1306 Online

BIOL 1106: Biology for Science Majors I Lab

Lab: 1 Semester Credit Hours

BIOL 1106 Online

Clarendon College
Division of Science and Health
Course Syllabus
Fall 2023

Assistant Professor: Mr. Russell Estlack
E-mail: russell.estlack@clarendoncollege.edu

The “Messages” feature within the online platform is the main method you should use to contact me. I will make every effort to check the course website every weekday and respond to your message requests within 24 hours on business days.

Online Course website: This online course uses Open LMS as its online course management program. All instructions, tutorials, exams, and assignments are provided through your Open LMS course. All assignments must be submitted there. Due dates for all assignments are listed in the “Course Schedule” at the course website. Most communication between you and your instructor and fellow classmates will be handled in the online platform through the “Messages” feature and discussion forums. You will be able to log into the course website once you have officially registered for the course and once you have been added to the course website. The course website will become available to you by the first day of the semester. If you register late, you will generally have access to the course within 24 hours after you register. In order to be successful in completing BIOL 1306, a 3-credit hour course, and BIOL 1106, a 1-credit hour course, you should plan to spend between 8-9 hours per week on the course and between 3-4 hours per week on the lab course.

The information explaining how to log into your course website can be obtained by going to [Clarendon College's](#) home page and clicking on the drop-down menu **Portal Login** then clicking on Online Classes. On that page, click on the link “[Click here to login to Online Courses.](#)” **If you have any difficulty logging in, email our help desk at: administrator@clarendoncollege.edu**

Required Enrollment Verification Activity (EVA)

The required Syllabus Agreement and Enrollment Verification Activity (EVA) is a brief quiz over the syllabus. Marking the quiz “I agree” verifies that you are enrolled in the course, have read the syllabus, understand the expectations of the course, and accept the guidelines for attendance and the grading policy. Students who fail to complete the EVA by the official census date may not be able to continue in the course. This could result in an F for the course and forfeiture of Financial Aid. The published Academic Calendar located in the Inside CC link on Clarendon College’s home page includes the census date.

BIOL 1306 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.

Co-requisite: BIOL 1106 Biology for Science Majors I Lab

BIOL 1106 Course Description: This laboratory-based course accompanies BIOL 1306, Biology for Science Majors I. Laboratory activities will reinforce the fundamental principles of living organisms, including physical and

chemical properties of life, organization, function, evolutionary adaptation, and classification. Study and examination of the concepts of cytology, reproduction, genetics and scientific reasoning are included.

Pre-/Co-requisite: BIOL 1306 Biology for Science Majors I

Statement of Purpose: Biology for Science Majors I partially satisfies the requirements for the Associates Degree at Clarendon College and is designed for transfer to a senior college.

Required Instructional Materials Supplies: This course has a required textbook that is available online at no cost to students. The labs require materials that can be purchased at a grocery and/or variety store.

Required Text: *Biology 2e* textbook authored and published by OpenStax College (License: [CC-BY 4.0](https://creativecommons.org/licenses/by/4.0/)). **You are responsible for reading the Text.** You can access and/or download the textbook material at <https://openstax.org/details/books/biology-2e>. **You do not have to print the textbook as it is available as an e-text on the OpenStax website and available via hyperlinks from Open LMS.**

Methods of Instruction: This course will utilize Readings, PowerPoint presentations, Forum discussions, audio-visual materials, and lab instruction.

Student Rights and Responsibilities: Student Rights and Responsibilities are listed on the College website at: <http://www.clarendoncollege.edu/Resources/Student%20Services/StudentRightsResponsibilities.pdf>

In accordance with recommendations from the Texas Higher Education Coordinating Board (THECB), all life and physical science courses at Clarendon College will address the following core objectives:

- **Critical Thinking Skills** – including creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- **Communication Skills** – including effective written, oral, and visual communication.
- **Empirical and Quantitative Skills** – including application of scientific and mathematical concepts.
- **Teamwork** – including the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.

Specific **Student Learning Outcomes** for the class and lab can be viewed from the THECB website at this link: <https://reportcenter.highered.texas.gov/training-materials/lower-division-academic-course-guide-spring-21/>

Course Expectations:

- You may expect a response time from me of a day (24hrs) on business days for messages or email, and perhaps two to three days for Discussion, Activity, and Assignment grades.
- Etiquette expectations (netiquette) for all types of communication: You are expected to take responsibility in helping to maintain a classroom environment that is conducive to learning. Please be polite and maintain a professional tone in your writing. NO abusive language will be tolerated in this course.

Computer/Technology Requirement: This course uses a variety of web resources that require a good Internet connection and an up-to-date browser. The course will have its best appearance and functionality utilizing Mozilla Firefox.

Note: If you use your iPad or iPhone to work in this course, download and use Mozilla Firefox to access the course instead of using Safari as your internet browser. Note: To use your **mobile device**, install the **Open LMS app**. Some activities cannot be completed on a mobile device.

You must have the following programs on your computer in order to use and complete these online courses:

- Adobe Reader (to view the PDF type of documents)
- Latest version of one of these internet browsers on your computer: **Mozilla Firefox, Google Chrome, or Microsoft Edge.**
- You must also have access to the **Microsoft Office** program that contains Microsoft Word to view some documents and PowerPoint to view some slideshows. (If you don't already have it on your computer, you can download the free Microsoft 365 available through Clarendon College. Click [these instructions](#) for help downloading it as well as accessing your Bulldogs email.)

Grading Policies: You will receive one letter grade for BIOL 1306 and one letter grade for BIOL 1106. Those grades come from the components described below. **Student grades and course averages are viewable in Open LMS by clicking on the “Course Dashboard” and then clicking on the “Gradebook” in Open LMS. All graded activities/discussions/quizzes for BIOL 1306 and BIOL 1106 must be completed and/or submitted in the Open LMS learning platform.**

BIOL 1306: Biology for Science Majors I Class

1. Before the BIOL 1306 Course becomes active you should complete a Syllabus Agreement EVA and answer “I agree.” This is a Course Contract that submits that you understand and will abide by my class policies.
 - a. **Required Enrollment Verification Activity (EVA):** Students who fail to complete the Syllabus Agreement & Enrollment Verification Activity by the official census date may not be able to continue in the course. This could result in an F for the course and forfeiture of Financial Aid. The census date for this term can be found on the Academic Calendar located at the Inside CC link on Clarendon College’s home page.
2. **Writing Requirements: Class discussions and assignments will count as 30%** of your final course grade.
 - a. This portion of your grade comes from your completion of class discussions and assignments that are posted in Open LMS.
3. **Chapter quizzes will count as 30%** of your final course grade.
 - a. Each chapter has at least one quiz.
 - b. BEFORE you attempt the quiz:
 - i. Be sure to read the e-text chapter thoroughly.
 - ii. You may find it helpful to review the included PowerPoints as well as class notes that accompany the chapters.
 - iii. Be certain to complete the discussion or activity for that chapter.
 - c. **You will only have one attempt for each chapter quiz.**
 - d. Once you begin the quiz, you must complete it within the allotted time.
 - a. No quiz grades will be dropped.
4. **Class exams will count as 40%** of your final course grade.
 - a. The exams will have 50 questions.
 - i. The exams will utilize a variety of question formats (objective, matching, multiple choice, true/false, etc.)
 - b. **You will only have one attempt for each exam.**
 - c. Once you begin the exam, you must complete it within the allotted time.
 - d. All class exams, including the final, will be weighted equally.
 - e. Each exam covers the material covered since the last exam (not comprehensive).
 - f. No exam grades will be dropped.

BIOL 1106: Biology for Science Majors I Lab

1. Before the BIOL 1106 Course becomes active you should complete a Syllabus Agreement EVA and answer “I agree.” This is a Course Contract that submits that you understand and will abide by my class policies.
 - a. **Required Enrollment Verification Activity (EVA):** Students who fail to complete the Syllabus Agreement & Enrollment Verification Activity by the official census date may not be able to continue in the course. This could result in an F for the course and forfeiture of Financial Aid. The census date for this term can be found on the Academic Calendar located at the Inside CC link on Clarendon College’s home page.
2. **Writing Requirements: Lab discussions and assignments will count as 30%** of your final lab grade. This portion of your grade comes from your completion of lab discussions and assignments that are posted in Open LMS.
3. **Weekly Lab quizzes will count as 30%** of your final lab grade.
 - a. By clicking on the lab quiz icon in Open LMS you can access the weekly quizzes.
 - b. The quizzes can be taken in sequence as you finish the requirements to activate them.

- c. There will be **One Attempt** per quiz. Even though these quizzes are open notes; it would be to your advantage to watch the Video, read the Lab Exercise, and perform any required lab activities before taking the quiz.
- d. No quiz grades will be dropped.
- 4. **Lab exams will count as 40%** of your final lab grade.
 - a. You will take a midterm a final lab exam.
 - b. These exams are equally weighted and non-comprehensive.
 - c. You will only have **One Attempt** on the exams.
 - d. I will not drop either exam grade.
 - e. Once you begin the lab exam, you must complete it within the allotted time.

Grading Scale for the Class and lab:

<u>Letter Grade</u>	<u>Numeric Grade</u>
A	90-100
B	80-89
C	70-79
D	60-69
F	59 and below

Your official final course grade will appear in your Student Portal.

Grades earned for each graded activity will be available in Open LMS. However, in your Open LMS gradebook, assume that any activity you did not complete is a zero, even if a hyphen appears beside the activity in the gradebook. The current course average shown in the Open LMS gradebook will not be correct until I have replaced the hyphens with zeroes.

Academic Integrity Policy:

Clarendon College is committed to a philosophy of honesty and academic integrity. It is the responsibility of all members of the Clarendon College community to maintain academic integrity at Clarendon College by refusing to participate in or tolerate academic dishonesty. Any act of academic dishonesty will be regarded by the faculty and administration as a serious offense.

Be certain to review the Student Academic Integrity and Classroom Ethics policies in your Student Handbook. You are responsible for both knowing and adhering to these policies. You may access the Student Handbook at this link: <https://www.clarendoncollege.edu/Resources/Student%20Services/2020-2023%20Student%20Handbook.pdf>

Class Policies:

1. **Online Attendance Policy:** Regular attendance is mandatory in all online courses. Specific activities will be identified each week that must be completed in order for students to be considered "in attendance." Failure to complete these assignments can result in forfeiture of Financial Aid and failure of the class.
 - I will submit an attendance report each Tuesday and on the census date. Students who are following the online attendance policy and participating in the weekly designated attendance activity are marked "present."
2. **Make-up work:** Late work will not be accepted unless the missed assignment is due to an emergency (with documentation). Allowing a student to make up late work is solely at the discretion of the instructor.
3. **Final Class and Lab Exams:** Students must take a final for each of their academic courses. The schedule of final exam times is published at the beginning of the semester. I will not give any early finals except in extreme emergencies after students have provided documentation of said emergency. Both the class and lab final will be open from 12:01 a.m. on Monday, December 4, 2023 and will close at 11:55 p.m. on Tuesday, December 5, 2023.
4. **Scholastic Honesty:** I adhere to a strict policy regarding academic honesty. Anyone who is dishonest in any way will receive a zero on that assignment or exam with no opportunity to make up the zero and may be dropped from the course with a grade of F.

5. **Accommodations:** Clarendon College provides reasonable accommodations for persons with temporary or permanent disabilities. Should you require special accommodations, it is your responsibility to notify the Office of Student Services (806-874-3571 or 800-687-9737). Further information about this process is available on the college website at this address: www.clarendoncollege.edu/accommodations. We will then work with you to make whatever accommodations we need to make.
6. **Withdrawal:** If you decide that you are unable to complete this course or that it will be impossible to complete the course with a passing grade, you may drop the course and receive a "W" on your transcript instead. (The last day to drop a course is available on the Academic Calendar, located at the Student link on the Clarendon College website.) Withdrawal from a course is a formal procedure that you must initiate. If you do not go through the formal withdrawal procedure, you will receive whatever grade you have earned.

Whether to drop a class or not requires a lot of thought. According to Texas state law a student is only allowed to drop the same class twice before he/she will be charged triple the tuition amount for taking the class a third time or more. Furthermore, beginning with the Fall 2007 semester, students in Texas may only drop a total of 6 courses throughout their entire undergraduate career. After the 6th dropped class, he/she will no longer be able to withdraw from any classes.

The last day to withdraw from this course with a "W" is Friday, November 3, 2023.

Biology for Science Majors I

Tentative Course Calendar and Outline – Fall 2023

Tentative Course Schedule: This course schedule is also available your Open LMS courses. The course schedule is subject to change. If changes are made, you will receive a message in your Bulldog email. I will also change the course schedule itself to reflect any changes made.

****Discussions and Activities that contribute to your Writing Requirement Grade and are also used to determine weekly attendance. These ONLY open during the week that they are assigned. I record attendance every Tuesday.**

All quizzes and exams are open. You can progress through the course at your own pace and work ahead. However, note that the due dates are absolute. I will not re-open anything once a due date has passed.

CDST = Central Daylight Saving Time CST = Central Standard Time

WEEKS	CLASS TOPICS Completed in Open LMS	LAB ACTIVITIES Completed in Open LMS
Week 1 DUE by Aug 21 at 11:55 p.m. CDST	Classes Begin Wednesday, August 16 – it is important to log in to the course immediately so I can count you present for the college's records <u>Class Orientation & Required EVA Unit Syllabus & Introduction</u> Complete the Syllabus Agreement EVA located in the Class Orientation unit. **Writing Assignment: Discussion – Icebreaker Activity: Introduce Yourself Mon., Aug. 21 - last day to last day to register and add/drop	Labs Begin Wednesday, August 16 – it is important to log in to the course immediately so I can count you present for the college's records <u>Start Here: Unit 1</u> Lab Safety & Protocol Complete the Syllabus Agreement EVA located in the Class Orientation unit. **Writing Assignment: Discussion – The Best Advice You Ever Received Quiz 1 – Lab Safety
Week 2 DUE by Aug 28 at 11:55 p.m. CDST	Chapter 1: The Study of Life Quiz 1 – Scientific Method Quiz 2 – Introduction to Biology **Writing Assignment: Characteristics of Life	Lab Unit 2: The Scientific Process Quiz 2 – Upload pages 2, 8, 9, & 11 of lab handout "Gen Bio Lab – Scientific Process with MMs" Quiz 3 – The Scientific Process **Writing Assignment: Discussion – Scientific Process

Biology for Science Majors I: Tentative Course Calendar and Outline – Fall 2023

****Discussions and Activities that contribute to your Writing Requirement Grade and are also used to determine weekly attendance. These ONLY open during the week that they are assigned. I record attendance every Tuesday. Note that the due dates are absolute. I will not re-open anything once a due date has passed.**

WEEKS	CLASS TOPICS Completed in Open LMS	LAB ACTIVITIES Completed in Open LMS
Week 3 DUE by Sept 4 at 11:55 p.m. CDST	Monday, September 4 – College Holiday Note that my quiz and writing assignment due dates are on Mondays at 11:55 p.m. The quizzes have been open since the semester started. I recommend that you complete them early so that you can enjoy the Monday holiday. Chapter 2: The Chemical Foundation of Life Quiz 3 – The Chemical Foundation of Life Chapter 3: Biological Macromolecules Quiz 4 – Biological Macromolecules **Writing Assignment: Discussion - Properties of Water Thurs., Aug. 31 – Census Day	Monday, September 4 – College Holiday Note that my quiz and writing assignment due dates are on Mondays at 11:55 p.m. The quizzes have been open since the semester started. I recommend that you complete them early so that you can enjoy the Monday holiday. Lab Unit 3: Microscopy Quiz 4 – Microscopy **Writing Assignment: Discussion – Pioneers in Microscopy
Week 4 DUE by Sept 11 at 11:55 p.m. CDST	Chapter 4: Cell Structure Quiz 5 – Cell Structure Chapter 5: Plasma Membranes Quiz 6 – Plasma Membranes **Writing Assignment: Discussion – Tonicity in Cells	Lab Unit 4: Cell Biology Quiz 5 – Cell Anatomy Quiz 6 – Cell Biology **Writing Assignment: Discussion – Spontaneous Generation?
Week 5 DUE by Sept 18 at 11:55 p.m. CDST	Chapter 10: Cell Reproduction Quiz 7 – Cell Reproduction Exam 1 – Chapters 1, 2, 3, 4, 5, & 10 **Writing Assignment: Discussion – Cell Cycle Regulation Friday, September 15 – Constitution Day Celebrated at Clarendon College	Lab Unit 5: Single-Celled Organisms and Mitosis Quiz 7 – Prokaryotic vs. Eukaryotic Cells Quiz 8 – Mitosis **Writing Assignment: Discussion – Prokaryotic & Eukaryotic Cells
Week 6 DUE by Sept 25 at 11:55 p.m. CDST	Chapter 6: Metabolism Quiz 8 – Metabolism Chapter 7: Cellular Respiration Quiz 9 – Cellular Respiration **Writing Assignment: Discussion – Fermentation	Lab Unit 6: Cellular Respiration Quiz 9 – Cellular Respiration **Writing Assignment: Discussion – Do Plants Use Cellular Respiration?

Biology for Science Majors I: Tentative Course Calendar and Outline – Fall 2023

****Discussions and Activities that contribute to your Writing Requirement Grade and are also used to determine weekly attendance. These ONLY open during the week that they are assigned. I record attendance every Tuesday. Note that the due dates are absolute. I will not re-open anything once a due date has passed.**

WEEKS	CLASS TOPICS Completed in Open LMS	LAB ACTIVITIES Completed in Open LMS
Week 7 DUE by Oct 2 at 11:55 p.m. CDST	Chapter 8: Photosynthesis Quiz 10 – Photosynthesis Exam 2 – Chapters 6, 7, & 8 **Writing Assignment: Make a Photosynthesis Poster	Lab Unit 7: Plant Cyclosis, Endosymbiosis, and Video in Elodea Quiz 10 – Cyclosis & Chloroplast Structure <i>The Amazing Lives of Plants – Growing Video</i> Quiz 11 – Private Life of Plants **Writing Assignment: Discussion – Help! I'm trapped!
Week 8 DUE by Oct 9 at 11:55 p.m. CDST	Monday, October 9 – College Holiday Note that my quiz and writing assignment due dates are on Mondays at 11:55 p.m. The quizzes have been open since the semester started. I recommend that you complete them early so that you can enjoy the Monday holiday. Chapter 11: Meiosis and Sexual Reproduction Quiz 11 – Meiosis and Sexual Reproduction **Writing Assignment: Discussion – Meiosis and Sexual Reproduction	Monday, October 9 – College Holiday Note that my quiz and writing assignment due dates are on Mondays at 11:55 p.m. The quizzes have been open since the semester started. I recommend that you complete them early so that you can enjoy the Monday holiday. Lab Unit 8: **Lab Midterm Exam
Week 9 DUE by Oct 16 at 11:55 p.m. CDST	Chapter 12: Mendel's Experiments and Heredity Quiz 12 – Mendel's Experiments and Heredity **Writing Assignment: Discussion – Mendel's Laws	Lab Unit 9: Meiosis and <i>Life's Greatest Miracle</i> Video Quiz 12 – Meiosis Quiz 13 – Life's Greatest Miracle **Writing Assignment: Discussion – Meiosis
Week 10 DUE by Oct 23 at 11:55 p.m. CDST	Chapter 13: Modern Understandings of Inheritance Quiz 13 – Modern Understandings of Inheritance Exam 3 – Chapters 11, 12, & 13 **Writing Assignment: Research Chromosomal Abnormalities	Lab Unit 10: Solving Genetics Problems Quiz 14 – Mendel's Laws Quiz 15 – Monohybrid Genetics Problems Quiz 16 – Dihybrid & NeoMendelian Genetics Problems **Writing Assignment: Discussion – Blending Inheritance?
Week 11 DUE by Oct 30 at 11:55 p.m. CDST	Mon., Oct. 23 – pre-registration for Fall Mini 2023 and Spring 2024 begins. Tues., Oct. 24 – 60% of the term is complete Chapter 14: DNA Structure and Function Quiz 14 – DNA Structure and Function **Writing Assignment: Upload completed DNA Structure & Function Worksheet	Lab Unit 11: DNA Fruit Extraction and <i>The Secret of Life</i> Video Quiz 17 – DNA: The Secret of Life **Writing Assignment: Upload completed DNA Extraction photo and answered questions.

Biology for Science Majors I: Tentative Course Calendar and Outline – Fall 2023

****Discussions and Activities that contribute to your Writing Requirement Grade and are also used to determine weekly attendance. These ONLY open during the week that they are assigned. I record attendance every Tuesday. Note that the due dates are absolute. I will not re-open anything once a due date has passed.**

WEEKS	CLASS TOPICS Completed in Open LMS	LAB ACTIVITIES Completed in Open LMS
Week 12 DUE by Nov 6 at 11:55 p.m. CST	Chapter 15: Genes and Proteins Quiz 15 – Genes and Proteins **Writing Assignment: Discussion – Genes and Proteins Fri., November 3 last day to Drop with a “W” Daylight Saving Time ends at 2:00 a.m. on Sunday, November 5	Lab Unit 12: Molecular Biology & Plasmids Quiz 18 – Genetic Engineering & Plasmids **Writing Assignment: Activity – Genetic Engineering
Week 13 DUE by Nov 13 at 11:55 p.m. CST	Chapter 17: Biotechnology and Genomics Quiz 16 – Biotechnology and Genomics Exam 4 – Chapters 14, 15, & 17 **Writing Assignment: Discussion – Genetic Engineering	Lab Unit 13: Constructing a Dichotomous Key Quiz 19 – Upload your solutions to page 5 of the lab handout “Dichotomous Key” **Writing Assignment: Activity – Upload your Constructed Dichotomous Key using the instructions in the lab handout “Animal Classification”
Week 14 DUE by Nov 20 at 11:55 p.m. CST	Chapter 18: Evolution and the Origin of Species Quiz 17 – History of Evolution Quiz 18 – Evidence of Evolution **Writing Assignment: Research Allopatric and Sympatric Speciation	Lab Unit 14: Evolution and <i>Origin of Species</i> Video Quiz 20 – Origin of Species Quiz 21 – History of Evolution Quiz 22 – Evidence for Evolution **Writing Assignment: Discussion – Evidence of Evolution
Nov 20 – Nov 24	Note that my quiz and writing assignment due dates are on Mondays at 11:55 p.m. The quizzes have been open since the semester started. I recommend that you complete them early so that you can enjoy the fall break holiday. Fall Break – College Holiday	Note that my quiz and writing assignment due dates are on Mondays at 11:55 p.m. The quizzes have been open since the semester started. I recommend that you complete them early so that you can enjoy the fall break holiday. Fall Break – College Holiday
Week 15 DUE by Dec 4 at 11:55 p.m. CST	Chapter 21: Viruses Quiz 19 – Viruses **Writing Assignment: Discussion – Viruses Friday, Dec. 1 – Commencement Ceremony at Clarendon College	Lab Unit 15: Exercise: Hardy-Weinberg Genetics Quiz 23 – Calculating Allele Frequencies Quiz 24 – Population Genetics **Writing Assignment: Discussion – Galapagos Tortoises

Biology for Science Majors I: Tentative Course Calendar and Outline – Fall 2023

The Final Exams will contribute to your course & lab averages, respectfully, and are also used to determine weekly attendance this week. **These ONLY open from 12 a.m. December 5 to 11:55 p.m. December 6.

WEEKS	CLASS TOPICS Completed in Open LMS	LAB ACTIVITIES Completed in Open LMS
FINAL EXAMS <u>OPEN</u> Dec 4 at 12 a.m. <u>CLOSE</u> Dec 5 at 11:55 p.m. CST	**Final Exam – Chapters 18 & 21 to be taken in Open LMS between 12 a.m. CST Monday, December 4 and 11:55 p.m. CST Tuesday, December 5	**Final Lab Exam – Quizzes 12 - 24 to be taken in Open LMS between 12 a.m. CST Monday, December 4 and 11:55 p.m. CST Tuesday, December 5