

GRAYSON COLLEGE

Course Syllabus

Please Note: Due to extenuating circumstances, including public health issues, course and testing delivery methods, instructional schedules, housing contracts, campus procedures and/or operating hours may be altered, interrupted and/or ceased for a limited or extended period of time. Such changes will be posted on the College website.

Course Information

BIOL 1306

Biology I

online lecture course; lecture testing will be online or through testing center by appointment.

Professor Contact Information

Instructor/Professor: Michael B. Keck, PhD

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Although students must register for a separate course number for lab and lecture, the two “courses” are in fact the same course and are separated for scheduling and reporting reasons. Your final grade is derived from the combination of your lecture and laboratory grades (70% lecture and 30% lab). Together the lecture and laboratory satisfy the state core objectives (CS1, CT2, CT3, EQS2, and TW1) and therefore must be taken concurrently.

Concurrent enrollment in a laboratory section (BIOL 1106) is required. Prerequisite: College readiness in reading required.

Course Description

BIOL 1306. Biology I. 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. Laboratory activities will reinforce the knowledge and provide opportunities to practice skills.

Concurrent enrollment in laboratory section (BIOL 1106) is required. Prerequisite: College readiness in reading required. (R)

State Core Objectives Met in this Combined Lecture and Lab Course:

1. Communication Skills, CS1 – Students will develop, interpret, and express ideas through written communication.
2. Critical Thinking Skills, CT2 – Gather and assess information relevant to a question.
3. Critical Thinking Skills, CT3 – Analyze, Evaluate, and Synthesize Information.
4. Empirical and Quantitative Skills, EQS2 – Students will describe, explain, and predict natural phenomena using the scientific method.
5. Teamwork, TW1 – Students will work cooperatively with their peers and leaders to more effectively solve problems by utilizing insights from multiple perspectives.

Student Learning Outcomes Met in this Lecture and Lab Combined Course

(Student Learning Outcomes will be addressed in this class and/or the co-requisite lab.)

Upon successful completion of this course, students should be able to do the following:

1. Describe the characteristics of life.
2. Explain the methods of inquiry used by scientists.
3. Identify the basic requirements of life and the properties of the major molecules needed for life.
4. Compare and contrast the structures, reproduction, and characteristics of viruses, prokaryotic cells, and eukaryotic cells.
5. Describe the structure of cell membranes and the movement of molecules across a membrane.
6. Identify the substrates, products, and important chemical pathways in metabolism.
7. Identify the principles of inheritance and solve classical genetic problems.
8. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
9. Describe the unity and diversity of life and the evidence for evolution through natural selection.
10. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
11. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
12. Communicate effectively the results of investigations.

Required Textbooks (ISBN # included) and Materials

Lecture Text: *Biology* 2nd edition, by [OpenStax College](https://openstax.org/). ISBN-13: 9781506699851. This is a FREE OER (open education resource) provided by Rice University, download the text at www.openstaxcollege.org

To access: 1) go to <http://cnx.org/content/col11448/latest/> 2) you will see options for the downloading of the text. Select what suits your needs, if you do not know your needs, then download the PDF file.

Laboratory Text *Exploring Biology in the Lab*, 3rd edition, Morton Publishing Company.

ISBN: 9781617317552. This can be purchased through bookstore, (retails at \$106.95 new) or an outside vendor.

Required Assignments & Academic Calendar

In case of inclement weather, emergency closings, or other unforeseen disruptions to scheduled classes, student must log onto their Canvas accounts for directions on where or how to continue their coursework. This schedule is subject to change with fair notice. You will be notified in your Canvas shell if a change is required.

	Topics, Readings, Assignments, Deadlines
	Chapter 1 – The Study of Life
	Chapter 2 – The Chemical Foundation of Life
	Chapter 3 – Biological Macromolecules
	Chapter 4 – Cell Structure
	Chapter 5 – Structure and Function of Plasma Membranes
	Lecture Test #1 chapters 1 to 5
	Chapter 6 – Metabolism
	Chapter 7 – Cellular Respiration
	Chapter 8 – Photosynthesis
	Chapter 10 – Cell Reproduction
	Chapters 14 & 15 – DNA Structure & Function
	Test #2 Chapters 6, 7, 8, 10, 14, 15
	Chapter 11 – Meiosis & Sexual Reproduction
	Chapter 12 – Mendel’s Experiments & Heredity
	Chapter 13 – Modern Understanding of Inheritance
	Test #3 Chapters 11 to 13
	Chapter 18 – Evolution and the Origin of Species
	Chapter 19 – The Evolution of Populations
	Chapter 45 – Population and Community Ecology
	Test #4 Chapters 18, 19 and 45
	Lecture Final Exam

Methods of Evaluation

Your final grade will be determined by both lecture and laboratory scores. Seventy percent (70%) of the final grade will be based on your lecture grade and 30% will be based on your laboratory grade. You will receive the SAME grade in lecture and lab.

To calculate a final grade in lecture and lab: You take the lecture grade and multiply by 0.70 and the laboratory grade multiplied by 0.30. You add the two resulting numbers together and get the final grade. e.g., you make a 72% average in lecture and an 86% in the laboratory. So you do the following: $(0.72 \times 0.70) + (0.86 \times 0.30) =$ final grade. If you perform this equation, you calculate $0.50 + 0.26 = 0.76$ or 76% as a final course grade. This calculated grade will then be reported for BOTH lecture and lab sections to the registrar.

In the lecture portion of the course, there will be four regular tests (100 points each), as well as a comprehensive final test (100 points). All students must take the comprehensive final test. The score on the comprehensive final test may be used to replace the lowest test score (which may be a 0 if the student has missed a test). So, the final test will count once if it is the lowest test grade, and it will count twice if it is not the lowest test grade:

Categories	Percentage
Test 1	20%; or dropped if lowest test grade
Test 2	20%; or dropped if lowest test grade
Test 3	20%; or dropped if lowest test grade
Test 4	20%; or dropped if lowest test grade
Final Test	20%; or 40% if NOT lowest test grade

All of these tests will be conducted online. Tests will be available to students during a 48-hour period. Each test has a time limit once it is started; the time limit is one minute per question.

Students MUST inform the instructor before a test if they will be absent: send e-mail to instructor, phone instructor or phone the Science Department. Students that are absent for college-related activities (e.g., drama, athletic events) are still required to personally inform the instructor in advance of any absences. Make-up tests are not online and will be given in the Testing Center by appointment.

Tests may consist of multiple choice, matching, short answer, fill-in-the-blank, true and false, listing, and/or discussion questions.

Opportunities may be available for extra credit; the professor will post the extra credit assignment details into Canvas.

To calculate a lecture grade, add the five test grades and the extra credit grade and divide by five.

The following grading scale will be used to determine your final grade in the course:

90-100	= A
80-89.99	= B
70-79.99	= C
60-69.99	= D
Below 60	= F

Following each test the grades will be posted in the student's grade book in the course shell on Canvas located on the Grayson website: www.grayson.edu.

Methods of Instruction

All material will be accessible through Canvas (an online learning environment).

Class Attendance

An online student is NOT considered attending just by logging in. To be considered attending, a student must be completing tests, and/or responding to messages from the professor, and/or messaging the professor.

Computer Hardware and Software Requirements

Students are expected to have a basic understanding of personal computers, internet browsing, desktop applications such as Microsoft Word, Open Office Adobe Acrobat and file management (uploading, downloading, or sending files). Generally, personal computers purchased in the last 3 years should be adequate to access Canvas. Canvas access through mobile devices will work well for all things except TESTS.

Students needing assistance with accessing instructional technology should contact the GC Help Desk. For more information, visit www.grayson.edu and under “Directory” tab at the top, select the “Help Desk”. Internet students should take full advantage of services provided.

Student Responsibilities, Conduct, & Discipline

Student Needs Services

The goal of Needs Services (disabilities and accommodations) is to provide students with educational opportunities when they have some exceptional situation that requires additional support. Needs Services is located on the second floor of the NEW Student Success Center.

The contact information for administrator of the services is:

Jeffri Hodge

(903) 463-8751 (voice or TTY)

hodgej@grayson.edu

It is the student’s responsibility to notify his or her professors of the need for any accommodations. Needs Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

Tutoring

This is a FREE service provided by the Student Success Center and administered by Jeffri Hodge as well. To schedule tutoring services, login to <https://grayson.upswing.io> Click “Meet with a tutor” and search course or by tutor’s name. There are face to face appointments that can be made here as well. Note: we are ALWAYS looking for tutors, so please talk to your instructor if you are interested in helping other students with their studies and getting paid.

Withdrawing or Dropping the Course

Students need to initiate this process. Instructors should be consulted and typically sign the drop form. Instructors have set office hours for providing these services. Please check with your instructor and make an appointment for consultation. If you wait until the last drop date in the semester, you or your instructor may be unable to complete the request to the college. If the request is incomplete, you will remain in the course and receive a grade.

Classroom Behavior

Students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance and an attitude that seeks to take full advantage of the educational opportunity.

Defacing College Property

Anyone caught defacing property in the lecture or lab will be responsible for cleaning, repairing or replacing the defaced property. The individual will also receive a zero (0) for the current lab assignment. Defacing property includes, but is not limited to, writing, marking or scratching on the tables, tabletops, chairs, cabinets, counter tops, shelving or walls.

Academic Integrity

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the college's policy on plagiarism (see GC Student Handbook for details). Grayson College subscribes to turnitin.com, which allows faculty to search the web and identify plagiarized material.

Plagiarism is a form of scholastic dishonesty involving the theft of or fraudulent representation of someone else's ideas or words as the student's original work. Plagiarism can be intentional/deliberate or unintentional/accidental.

Unintentional/Accidental plagiarism may include *minor* instances where an attempt to acknowledge the source exists but is incorrect or insufficient. Deliberate/Intentional plagiarism violates a student's academic integrity and exists in the following forms:

- Turning in someone else's work as the student's own (such as buying a paper and submitting it, exchanging papers or collaborating on a paper with someone else without permission, or paying someone else to write or translate a paper),
- Recycling in whole or in part previously submitted or published work or concurrently submitting the same written work where the expectation for current original work exists, including agreeing to write or sell one's own work to someone else,
- Quoting or copy/pasting phrases of three words or more from someone else without citation,
- Paraphrasing ideas without citation or paraphrasing incompletely, with or without correct citation, where the material too closely matches the wording or structure of the original,
- Submitting an assignment with a majority of quoted or paraphrased material from other sources, even if correctly cited, when original work from the student is expected,
- Copying images or media and inserting them into a presentation or video without citation,
- Using copyrighted soundtracks or video and inserting them into a presentation or video without citation,
- Giving incorrect or nonexistent source information or inventing source information,
- Performing a copyrighted piece of music in a public setting without permission,
- Composing music based heavily on someone else's musical composition.

Science Department Policy

Any instance of a) plagiarism b) collusion c) cheating or d) falsifying records, will result in a "0" for the assignment. The "0" assigned for cheating cannot be dropped or replaced by another grade when calculating the final course average.

TITLE IX

GC policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation and protected veterans status.

Furthermore, Title IX prohibits sex discrimination to include sexual misconduct: sexual violence (sexual assault, rape), sexual harassment and retaliation.

For more information on Title IX, please contact:

Dr. Molly M. Harris, Title IX Coordinator (903)463-8714

Ms. Logan Maxwell, Title IX Deputy Coordinator - South Campus (903) 415-2646

Mr. Mike McBrayer, Title IX Deputy Coordinator - Main Campus (903) 463-8753

Website: <http://www.grayson.edu/campus-life/campus-police/title-ix-policies.html>

GC Police Department: (903) 463-8777- Main Campus) [\(903\) 415-2501](tel:9034152501) - South Campus)

GC Counseling Center: (903) 463-8730

For Any On-campus Emergencies: 911

Campus-wide Student Policies

Grayson College campus-wide student policies may be found on our Current Student Page on our website:

<https://www.grayson.edu/currentstudents/Academic%20Resources/index.html>

Grayson College is not responsible for illness/injury that occurs during the normal course of classroom/lab/clinical experiences.

These descriptions and timelines are subject to change at the discretion of the Professor.
