

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 2301 & BIOL 2101

Human Anatomy & Physiology I

Hybrid course: The lecture is online. Testing will be done online using the software Respondus Lockdown Browser or making an appointment with the Grayson testing center.

Lab meets approximately 6 hours/week, testing conducted on campus in the lab.

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

Although students must register for a different course number for lab and lecture, the two components are part of the same course and are separated for scheduling and reporting reasons. Final grades are derived from the combination of both lecture and laboratory grades (60%/40%, respectively). Together the lecture and laboratory components satisfy the state learning objectives (CS1, CT2, CT3, EQS2, and TW1) and must be taken concurrently.

Prerequisite: College Readiness in reading required. Students must have passed the reading portion of the THEA (score of at least 230)

Concurrent enrollment in BIOL 2101 is required.

Prior completion of General Biology I (BIOL1306/1106) or Survey A&P (BIOL2404) is strongly recommended.

Course Description

BIOL 2301. Anatomy and Physiology I. (3-0-3). Anatomy and Physiology I is the first part of a two-course sequence. It is a study of the human body's structure and function, including cells, tissues, and organs of the following systems: integumentary, skeletal, muscular, nervous, and special senses. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

BIOL 2101. Anatomy and Physiology Laboratory I. (0-3-1). The lab provides a hands-on learning experience for the exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.

Student Learning Outcomes

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 Combined Lecture and Lab Course:

1. Students will be able to locate and identify the various regions of the human body and the organs and their associated functions.
2. Students will demonstrate an understanding of the integumentary, skeletal, muscular, and nervous systems and their interrelatedness.
3. Students will be able to identify the human cell structures and their related functions, including metabolism and cellular respiration.
4. Students will be able to demonstrate a working knowledge of the chemical process of the human body and the physical properties that govern them.

State Learning Outcomes Met in this Combined Lecture and Lab Course:

Lab component

Upon successful completion of this course, students will:

1. Apply appropriate safety and ethical standards.
2. Locate and identify anatomical structures.
3. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general labware, physiology data acquisition systems, and virtual simulations.
4. Work collaboratively to perform experiments.
5. Demonstrate the steps involved in the scientific method.
6. Communicate the results of scientific investigations, analyze data, and formulate conclusions.
7. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations, and predictions.

Lecture component

Upon successful completion of this course, students will:

1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain the contributions of organs and systems to the maintenance of homeostasis.
5. Identify the causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology.

Course Competencies:

A student completing this course can expect lectures covering the following topics in detail and tested over each section as announced by the instructor. Within each area of Anatomy and Physiology I, the content may or may not be covered in the sequence presented here. Content topics need not be taught in single blocks, yet may be integrated. Unifying themes, such as homeostasis, are emphasized throughout.

Body Plan and Organization-Students who have completed this section of the course should understand the scope of studies in anatomy and physiology and be able to use and understand descriptive anatomical and directive terminology.

Homeostasis-Upon completion of this section of the course, students should be able to explain the basic

concept of homeostasis and how homeostatic mechanisms apply to the body systems.

Chemistry and Cell Biology Overview-Students who have completed this section of the course should be able to identify cellular structures and explain their respective functions.

Histology-Completion of this section of the course should enable the student to be able to describe the basic tissues of the body, indicate their location, and explain their functions.

Integumentary System-Students who have completed this section of the course should be able to identify and describe the major gross and microscopic anatomical components of the integumentary system and describe the functions of the system.

Skeletal System-Completion of this section of the course should enable a student to be able to identify and describe the major gross and microscopic anatomical components of the skeletal system and describe the functions of the system.

Muscular System-Students who have completed this section of the course should be able to identify and describe the major gross and microscopic anatomical components of the muscular system and explain their functional roles in body movement, maintenance of posture, and heat production.

Nervous System-Students who have completed this section of the course should be able to identify and describe the major gross and microscopic anatomical components of the nervous system and explain their functional roles in communication, control, and integration.

Special Senses-Completion of this section of the course should enable a student to be able to identify and describe the major gross and microscopic anatomical components of the eye and ear and explain their functional roles in vision, hearing, and equilibrium. Students should also be able to identify and locate the receptors responsible for olfaction and gustation and briefly describe the physiology of smell and taste.

Required Textbooks

LECTURE (REQUIRED FREE TEXTBOOK)

Anatomy and Physiology, 1st edition, OpenStax College, 1st edition (January 1, 2013). **ISBN-13:** 978-1938168130

This is a FREE download with options to order print copies. Go to: <https://openstax.org/details/anatomy-and-physiology> , select how you want to access the book. I will provide pdfs of the chapters in your Canvas modules.

LAB (REQUIRED)

Exploring Anatomy & Physiology in the laboratory, 3rd Edition by Erin C. Amerman, Morton Publishing Company, ISBN 9781617316203.

LockDown Browser Requirement

This course requires the use of a LockDown Browser and webcam for all online lecture exams. Watch this video to get a basic understanding of LockDown Browser:

<https://www.respondus.com/products/lockdown-browser/student-movie.shtml>

Download Instructions

Download and install *Respondus LockDown Browser* from this link:

<https://download.respondus.com/lockdown/download.php?id=391848676>

Once Installed

- Start LockDown Browser
- Log in to Canvas

- Navigate to the quiz

Note: You won't be able to access a quiz that requires LockDown Browser with a standard web browser. If this is tried, an error message will indicate that the test involves using the LockDown Browser. Simply start LockDown Browser and navigate back to the exam to continue.

If you cannot use this because of computer or software issues, you must schedule an appointment with the GC testing center to take the exam.

Testing Center

Main Campus Testing Center

Student Success Center, second floor
6101 Grayson Drive
Denison, Texas 75020
903.463.8724 or testing@grayson.edu

To better ensure social distancing, all testing will require an appointment. Please use our RegisterBlast system to make an appointment for your specific test: <https://www2.registerblast.com/grayson/Exam/List>. If you do not see your test listed or if you need further assistance, please email us at testing@grayson.edu.

Testing Center hours

Monday 8:00 a.m. to 5:00 p.m.
Tuesday 8:00 a.m. to 8:00 p.m.
Wednesday 8:00 a.m. to 8:00 p.m.
Thursday 8:00 a.m. to 5:00 p.m.
Friday 8:00 a.m. to 5:00 p.m.

Required Assignments & Academic Calendar

(Topics, Reading Assignments, Due Dates, Exam Dates and where/how exams will be administered)

Students must log onto their Canvas accounts for directions on where or how to continue their coursework in case of inclement weather, emergency closings, or other unforeseen disruptions to scheduled classes.

This schedule is subject to change with fair notice. You will be notified in your Canvas shell if a change is required.

SEQUENCE OF INSTRUCTION

Week	Date	Topics, Readings, Assignments, Deadlines
1	LECTURE	Chapter 1 – An Introduction to the Human Body
	LAB	Lab Safety and Rules Lab 1 Introduction to Anatomical Terms, <i>Exercises 1.2 Directional terms, 1.3 Regional terms, 1.4 Body cavities & Membranes, with fetal pig dissection?, 1.5 Planes of Section and 1.6 Organs and Organ Systems</i>
2	LECTURE	Chapter 2 – The Chemical Level of Organization
	LAB	LABOR DAY –September 7 NO CLASSES <u>Take lab quiz over the human body</u> Lab 3 Introduction to the Microscope
3	LECTURE	Chapter 3 – The Cellular Level of Organization
	LAB	<u>Take lab quiz over the microscope</u>

Week	Date	Topics, Readings, Assignments, Deadlines
		Lab 4 Cytology Exercises 4.1 Organelles and cell structures, 4.2 Diffusion, 4.3 Osmosis and tonicity Exercise 4.4 Mitosis and cell cycle
4	LECTURE	Chapter 3 – The Cellular Level of Organization, continued LECTURE TEST 1: Chapters 1, 2, and 3 <i>Respondus LockDown Browser with Webcam required or schedule appointment with the testing center.</i>
	LAB	<u>Take lab quiz over cells, molecular movement, and the cell cycle</u> Lab 5 Histology Exercise 5.1 Epithelial tissue Exercise 5.2 Connective tissue, 5.3 Muscle tissue, 5.4 Nervous tissue
5	LECTURE	Chapter 4 – The Tissue Level of Organization
	LAB	<u>Take lab quiz over tissues</u> REVIEW FOR PRACTICAL 1 PRACTICAL 1 covers labs 1, 3, 4, and 5
6	LECTURE	Chapter 5 The Integumentary System
	LAB	<u>NO QUIZ</u> Lab 6 Integumentary System Exercises 6.1 Skin anatomy and accessory structures, 6.2 Histology of integument, Lab 7 Introduction to the Skeletal System Exercises 7.1 Histology of osseous tissue, 7.2 Chemical components of bone tissue, 7.3 Bone markings, and bone shapes, and 7.4 Anatomy of long bones
7	LECTURE	Chapter 6 Bone Tissue & Skeletal System
	LAB	<u>Take lab quiz over integument & bone microscopy</u> Lab 8 Skeletal System Exercises 8.1 Skull, 8.2 Remainder of the Axial Skeleton, 8.3 Appendicular Skeleton
8	LECTURE	LECTURE TEST 2: Chapters 4, 5, and 6 Chapter 7 Axial Skeleton Chapter 8 Appendicular Skeleton <i>Respondus LockDown Browser with Webcam required or schedule appointment with the testing center.</i>
	LAB	<u>Take lab quiz over BONES</u> Lab 9 Articulations Exercises 9.1 Classification of joints, 9.2 Synovial joints, and some of 9.5 Motions of synovial joints Lab 10 Muscular System: The Gross Anatomy of Muscles Exercises 10.1 Skeletal muscle and 10.2 Muscle origins, insertions, and actions
9	LECTURE	Chapter 9 Joints
	LAB	<u>Take lab quiz over joints & muscle</u> Lab 10 Muscular System, The Gross Anatomy of Muscles continued Exercises 10.1 Skeletal muscle and 10.2 Muscle origins, insertions, and actions
10	LECTURE	Chapter 10 Muscle Tissue
	LAB	<u>Take lab quiz over muscles</u> Lab 11 Muscle Tissue Exercise 11.1 Microscopic anatomy of skeletal muscle

Week	Date	Topics, Readings, Assignments, Deadlines
11	LECTURE	LECTURE TEST 3 covers chapters 7, 8, 9, 10, and 11 but MOSTLY 9 and 10 with some gross anatomy Chapter 12 The Nervous System and Nervous Tissue <i>Respondus LockDown Browser with Webcam required or schedule appointment with the testing center.</i>
	LAB	Take lab quiz over anatomy of muscles REVIEW FOR PRACTICAL 2 PRACTICAL 2 covers labs 6 to 11
12	LECTURE	Chapter 12 The Nervous System and Nervous Tissue, continued
	LAB	<u>NO QUIZ</u> Lab 12 Introduction to the Nervous System Exercise 12.1 Neurons and neuroglia Lab 13 Central Nervous System Exercise 13.1 Anatomy of the brain
13	LECTURE	Chapter 13 Anatomy of the Nervous System
	LAB	Take lab quiz over neurons and brain Lab 13 Central Nervous System, continued Exercise 13.1 Anatomy of the brain and exercise 13.2 The spinal cord Lab 14 Peripheral and Autonomic Nervous System Exercise 14.2 The cranial nerves
14	LECTURE	Chapter 14 The Somatic Nervous System
	LAB	Take lab quiz over the brain and spinal cord Lab 15 General and Special Senses Exercises 15.1 Anatomy of the Eye and Vision, 15.2 Anatomy of the ear, hearing, and equilibrium
15	LECTURE	Chapter 15 The Autonomic Nervous System ONLY parts! LECTURE TEST 4: Chapters 12, 13, and 14 <i>Respondus LockDown Browser with Webcam required or schedule appointment with the testing center.</i>
	LAB	Take lab quiz over eyes & ears REVIEW FOR PRACTICAL 3 PRACTICAL 3 covers labs 12 to 15
16	LECTURE	Lecture Final Test is COMPREHENSIVE & OPTIONAL <i>Respondus LockDown Browser with Webcam required or schedule appointment with the testing center.</i> Lab Final Practical is COMPREHENSIVE & OPTIONAL

Note: The sequence of instruction may be modified during the semester. Students will receive notification from the instructor of any changes.

DISCUSSION TOPICS (20% grade):

Why am I here?

Where do you stand?

Epigenetics

GMOs. What is this all about?

Methods of Evaluation

Anatomy and Physiology I is a composite course composed of a Biology 2301 lecture section and a Biology 2101 laboratory section. 60% of the composite course grade will come from the student's performance in the lecture section. The remaining 40% of the composite course grade will come from the student's performance in the laboratory section. The student's final composite course grade will be calculated by their lecture professor at the end of the semester. **The resulting letter grade will be reported to the registrar as the final grade for both the laboratory and lecture sections.**

LECTURE COMPONENT

Daily work, which may consist of chapter quizzes, study questions, post-tests, or online activities, will be required of students. **Daily work may constitute 20% of the lecture grade.**

Four major examinations will be given at scheduled times throughout the semester. Dates of the examinations will be announced in class. There will be no make-ups taken after an exam has been returned to the students. Students not taking the exam will receive a "0". Exams may be taken early as scheduled with the instructor for special circumstances. Exams may consist of multiple-choice, matching, short answer, fill-in-the-blank, true and false, and/or discussion questions. **Each exam will constitute 20% of the lecture grade.**

A student may have the ability to earn up to 10 extra credit points during the semester. The extra credit points will be added to the total number of points before dividing by five to derive the lecture average.

An optional comprehensive final will be given at the time scheduled by the college. Students who have not taken all four exams must take the final. Students who have taken all four exams have the option of taking the final to replace the lowest exam grade. **The final cannot be used to replace the daily work average.**

Lecture performance will be calculated in the following manner:

Add the daily grade average (if applicable), four highest test grades, and the extra credit (if applicable), then divide by five to get the lecture average.

LAB COMPONENT

LAB QUIZZES/DAILY WORK: Students will be given weekly quizzes over the information taught during the previous week's labs. Therefore your first quiz will cover lab safety and body organization. If a student must miss a lab, they are encouraged to attend another lab session. Students may take the other instructor's quiz **and stay for the entire lab**; otherwise, students will receive a "0" for that quiz and for each quiz they do not take. There will be NO quiz make-ups. **The two lowest quiz grades will be dropped.**

One of your quiz grades will come from a skills assessment. Your skill and use of the microscope will be demonstrated before the first practical. This performance assessment will count as one quiz grade. Students will be given a microscope slide and microscope and asked to find the specimen in the microscope slide within a reasonable time frame at an appropriate magnification, as determined by the professor. **PLEASE note that this quiz CANNOT be dropped.**

A lab report will be submitted to fulfill the Core Competencies for the state. This report will describe the Molecular Movement experiment in lab 4, week 3), as well as the analysis of the data and your conclusions. The report will be written in proper scientific format and will be evaluated for both substance and writing quality. The lab report will be worth a quiz grade. **The lab report grade may NOT be dropped.**

Cumulative points from the lab quizzes and lab reports will be equal to one lab practical.

There will be three lab practicals given at scheduled times throughout the semester. Each practical will consist of 50 questions (each worth 2 points) with an additional bonus of 4 points. The students will be timed at each station of the lab practical (2 questions per station). Partial credit for answers will be awarded due to deductions

such as ¼ point for incorrect spelling and ½ point for failure to designate right or left when identifying structures. The grade for each practical will constitute 25% of the final laboratory grade. Anyone missing a lab practical must take the Comprehensive Final Lab Practical at the scheduled time at the end of the semester. **For those who have taken all three practicals, the Comprehensive Final Lab Practical is optional.** It may be taken and substituted for a lower grade on one of the other three practicals. This will allow those who have taken all three practicals and the Comprehensive Final Practical to drop their lowest practical grade. Those who are satisfied with their grades do not have to take the Comprehensive Final Practical.

Course Grading

Your final grade will be determined by both lecture and laboratory scores. Sixty percent (60%) of the final grade will be based on your lecture grade, and 40% will be based on your laboratory-grade. You will receive the SAME grade in the lecture and lab.

To calculate a final grade in lecture and lab: You take the lecture grade and multiply by 0.60 and the laboratory-grade multiplied by 0.40. You add the two resulting numbers together and get the final grade. e.g., you make a 72% average in lecture and 86% in the laboratory. So you do the following: $(0.72 * 0.60) + (0.86 * 0.40) = \text{final grade}$. If you perform this equation, you calculate $0.43 + 0.34 = 0.77$ or 77% as a final course grade because your lecture grade contributes more to the final grade than your laboratory-grade. This calculated grade will then be reported for BOTH lecture and lab sections to the registrar.

At the end of the semester, the laboratory instructor will communicate students' laboratory grades to the students' lecture professor to calculate the students' final A&P1 course grades.

Lab report and exam grades will be posted on Canvas; students should retain quiz scores to calculate class points

Composite grades will be rounded up or down. For example, an average of 89.5 will be rounded up to a 90, and 89.4 will be rounded down to an 89.

Letter grades will be assigned as follows:

100 - 89.5 = A

89.4 - 79.5 = B

79.4 - 69.5 = C

69.4 - 59.5 = D

Below 59.4 = F

Daily work and exam grades to be posted on Canvas

Methods of Instruction

Students will work in groups to conduct experiments, collect data, draw logical conclusions, and answer questions on biological principles presented in the lecture portion of this course. Students will dissect preserved specimens, work with models, and view prepared slides through the microscope. The instructor will present information on exercises to be done weekly and will be present during the scheduled lab period for assistance and to answer questions.

Class Attendance

Attendance and Participation Academic success is closely associated with regular class attendance and course participation. All successful students, whether on campus or online, are expected to be highly self-motivated. All students must participate in courses regularly and are obliged to participate in-class activities and complete and submit assignments following their faculty's instructions. Students taking classes during compressed semester timeframes such as mini-mester, summer sessions, and 8-week courses should plan to spend significantly more time per week on the course. Responsibility for work missed because of illness, or school business is placed upon the student. Instructors are required to include in their syllabi the attendance policy for the courses(s) they teach. The college considers absences equal to or greater than 15% of the course's requirements to be excessive.

In order for students to be counted as having attended a class before the census date, the following guidelines are to be used: • Physical attendance in class with an opportunity for the instructor and student interaction • Submission of an academic assignment • Completion of an exam, interactive tutorial, or computer-assisted instruction • Attendance at a study group assigned by the faculty • Participation in an online discussion in the class • Contact with a faculty member to ask a question

Student Conduct & Discipline

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 lab will be responsible for cleaning, repairing, or replacing the vandalized 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, countertops, shelving, or walls.

Cell Phone Policy

All cell phones and other electronic devices must be turned off before entering the classroom. Text messaging is not permitted during class. If you have an emergency and need to take a call during the course, you must inform the instructor before the beginning of class. Turn your ringer to vibrate, and when your call comes in, pick up all of your belongings and leave the classroom. You may return to class the next time the class meets.

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.

Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, and 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 an 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 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
- 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.

The policy of the Science Department: 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 laboratory average.

Student Responsibility

You have already made the decision to go to college; now, the follow-up decisions on whether to commit to doing the work could very well determine whether you end up working at a good-paying job in a field you enjoy or working at minimum wage for the rest of your life. Education involves a partnership that requires both students and instructors to do their parts. By entering into this partnership, you have a responsibility to show up for class, do the assignments and reading, be engaged and pay attention in class, follow directions, and put your best effort into it. You will get out of your experience here exactly what you put into it – nothing more and nothing less.

Student Resources & Information

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 the 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 they have a disability and need accommodations. Individuals requiring unique 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, log in to <https://grayson.upswing.io> Click "Meet with a tutor" and search course or by tutor's name. There is 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 a 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.

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 from including 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 (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 - South Campus)

GC Counseling Center: (903) 463-8730

For Any On-campus Emergencies: 911

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.

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>

Basic Rules for the Compound Microscope

1. Check the number on the microscope assigned to you with its corresponding place in the cabinet.
2. Grasp the microscope arm firmly with one hand, and lift the instrument carefully from the shelf. Hold it upright and close to your body when carrying it. Gently place it on the laboratory bench away from the edge of the bench.
3. Remove the dust cover, uncoil the power cord, and plug it into an appropriate outlet.
4. Examine the microscope to see if any damage is apparent or if the microscope was put away in an unacceptable condition. If so, report this immediately to your instructor.
5. Clean all lenses by wiping them several times with a good lens paper. Do not use paper towels, Kleenex, clothing, or other types of material on lenses. Especially do not use Kimwipes!
6. Examine the stage to see if it is free of oil, that no slide has been left on the stage, and that the stage is racked all the way down into the lowest possible position. The scanning objective (or low power objective) should be in the path of light position. In other words, you want the objectives and the stage to be as far

apart as possible.

7. Turn on the light to check if it is functional.
8. Follow your lab manual's and instructor's directions for using the microscope.
9. At the end of each lab session, turn off the light and check the stage to be sure no slide is on it, and it is clean.
10. Clean all lenses with dry lens paper. If the oil immersion objective lens has been used, clean it last to avoid contaminating the other objectives with oil.
11. Rotate the nosepiece so that the scanning objective (low power objective) is in the light path.
12. Rack the stage down so that the objective and stage are as far apart as possible.
13. Unplug the power cord and rewind it. Replace the dust cover.
14. Carry the microscope as previously described back to the cabinet, returning it to its appropriate (numbered) place.

Biology Laboratory Safety Guidelines

1. Locate safety equipment: know where to find the exit(s), fire extinguisher, and first aid kit. Know how to use safety equipment.
2. **Do not eat or drink in the laboratory.**
3. Monitor risk: inform the instructor if you are pregnant, taking immunosuppressive medicines, or have any medical condition that might require special precautions in the lab, such as medications that would influence your response or reflex time. Under NO circumstances should you attend a lab session while "under the influence" of any chemical substance.
4. Avoid spills: place liquids toward the center of the bench, away from the edges.
5. Labels: read labels carefully before removing substances from containers. Properly label glassware before use.
6. Dissection: use care at all times when handling sharp dissection tools. Wear disposable gloves when dissecting preserved materials. Cover open cuts with a bandage before donning gloves. Do not touch face or eyes while wearing soiled gloves, and wash hands immediately after gloves are removed.
7. Discard used chemicals and materials into appropriately labeled containers, do not dispose of them down the sink unless specified by the instructor.
8. Broken glass: be careful handling broken glassware with bare hands. Dispose of all cracked or broken glassware in a puncture-resistant container found in S 200 (chemistry lab), not the regular trash can.
9. Report any spills, accidents, strange occurrences, or other safety incidents to the instructor. Immediately report damaged equipment to your instructor
10. Professional conduct is expected to avoid creating dangerous situations. If you have any questions concerning the safety of a procedure, consult your instructor.

11. To find the MSDS on any product used by Grayson, please go to this link and search <https://msdsmanagement.msdsolnline.com/?ID=C9DFE03B-6CE5-4E53-AD11-CB6588BAE690>
12. Thoroughly wash hands with soap and water before leaving the laboratory.

You will be asked to sign the following during class:

Waiver of Liability

As a Science student in a Grayson College laboratory course, I hereby confirm that I have been advised of laboratory safety measures and rules and agree to comply with these rules at all times during my enrollment in this laboratory course. In addition, I agree to hold harmless GC in any event resulting from the laboratory environment.

Contact Lenses

I am aware of the added health risks associated with wearing contact lenses in the lab but have elected to do so against the advice of my instructor. (If unsigned, I have agreed not to wear contact lenses at any time during this course.)

Student Responsibility

You have already made the decision to go to college; now, the follow-up decisions on whether to commit to doing the work could very well determine whether you end up working at a good-paying job in a field you enjoy or working at minimum wage for the rest of your life. Education involves a partnership that requires both students and instructors to do their parts. By entering into this partnership, you have a responsibility to show up for class, do the assignments and reading, be engaged and pay attention in class, follow directions, and put your best effort into it. You will get out of your experience here exactly what you put into it – nothing more and nothing less.
