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
BIOL1306 1NT and BIOL1106 1NT
General Biology I
Online course: **Biology 1 Lecture** and Lab

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

Although students must register for a different course number for lab and lecture, the two "courses" are 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 (70/30, respectively). Together the lecture and laboratory satisfy the state core objectives (CS1, CT2, CT3, EQS2, and TW1) and must be taken concurrently.

Concurrent enrollment in a lecture (BIOL 1306) and 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 knowledge and provide opportunities to practice skills.
Concurrent enrollment in the laboratory section (BIOL1106) is required. Prerequisite: College readiness in reading required. (R)

BIOL 1106. Biology I. This laboratory-based course accompanies Biology 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. Concurrent enrollment in a lecture section (BIOL 1306) 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 the lecture and the 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 significant 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 essential 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 the results of investigations effectively.

Required Textbooks (ISBN # included) and Materials
Lecture Text: *Biology* by OpenStax College. This is a FREE open education resource provided by Rice University; download the text at www.openstaxcollege.org
ISBN: 978-1-938168-09-3
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.

BIOL1106- ***Lab does not require a book.***

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.

Type of Course/Delivery Mode

Online lecture/lab course with testing conducted at designated times and dates using **Canvas**.

Communication between the instructor and students will primarily be through the course site in GC Canvas. Frequent announcements, comments in the course discussions, email responses, and feedback will be provided regularly. Students will primarily communicate with one another through the course discussions tool. Also, students have the option to use Canvas mail, as well as the Chat tool to communicate with each other.

In an online course, routine participation is essential. Online participation is assessed through a variety of methods, including timely *submission of assignments* as well as logging in and checking the course site regularly. Generally, it would be best if you planned to check the course site, review new course materials at least four times per week. According to the syllabus, a percentage of the course grade will come from online course participation.

Students are expected to understand personal computers, internet browsing, desktop applications such as Microsoft Word, Adobe PDFs, and file management (uploading, downloading, or sending files). Generally, personal computers purchased in the last three years should be adequate to access GC Canvas. Software requirements include the latest updates to your operating system and the latest updates to your anti-virus and spyware protection. DO NOT attempt quizzes and exams on tablets or cell phones.

Students needing assistance with accessing instructional technology should contact the GC Canvas Help Desk. Visit www.grayson.edu and select "Campus Offices" and the "Canvas Help Desk" link for more information. Internet students should take full advantage of services provided at

http://www.grayson.edu/current-students/help-desk/index.html

If you have computer/internet problems, it is your responsibility to locate another computer/location to complete the course work for the lecture and lab. Grayson College has several areas that have computers available for you to use. One example of an alternative location would be public libraries that usually

have community computers with high-speed internet free to use. There is an open computer lab available for GC students during the GC Library's regular operating hours.

***Please do not wait until the last minute to submit assignments and to take exams*! Allow enough time before the due date to submit your assignments. Should there be a technical problem, immediately notify the instructor via external email or internal Canvas email. Alternative arrangements, if permitted, will be discussed at that time. Correspondence with students and instructor should be courteous and respectful.**

LECTURE Required Assignments & Academic Calendar

All regular lecture exams and the final exam will be administered online during test "open" dates and times. These are opened in the **unit modules** found on the Canvas BIOL1306 site. If open, click on the provided link in the Canvas unit module.

Note: all assessments are timed. Do not leave the test before completing it. Be constantly aware of how much time is left on it. The assessments will close and submit if time is up. If closed or if disconnected from the internet during this time, the clock *continues to count down.* Log back on and continue quickly.

The **Lecture Final Exam** will be administered online during Final's Week, according to the schedule listed on the Grayson College Website.

Lecture Course Schedule

(DO NOT attempt quizzes and/or exams on tablets or cell phones.)

Topics, Readings, Assignments, Deadlines **All Exams Open at 8 a.m. on opening day and close at 10 p.m. on the closing date.** *DO NOT WAIT UNTIL THE LAST MINUTE TO TAKE EXAMS.*
1. Submit Academic Integrity Statement* **2. Syllabus and Canvas Orientation Quiz*** Respondus **LockDown Browser Required** ***Required completion before continuing course work.**
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
Test #1 Respondus **LockDown Browser Required**
Chapter 6 – Metabolism
Chapter 7 – Cellular Respiration
Chapter 8 – Photosynthesis
Chapter 10 – Cell Reproduction
Chapter 14, (15) – DNA Structure & Function ***(incorporate transcription from Chapter 15)***
Test #2 Respondus **LockDown Browser Required**
Chapter 11 – Meiosis & Sexual Reproduction
Chapter 12 – Mendel's Experiments & Heredity
Chapter 13 – Modern Understanding of Inheritance
Chapter 17 – Biotechnology and Genomics
Test #3 Respondus **LockDown Browser Required**
Chapter 18 – Evolution and the Origin of Species
Chapter 19 – The Evolution of Populations

Topics, Readings, Assignments, Deadlines **All Exams Open at 8 a.m. on opening day and close at 10 p.m. on the closing date.** *DO NOT WAIT UNTIL THE LAST MINUTE TO TAKE EXAMS.*
Chapter 45 – Population and Community Ecology
Chapter 46 – Ecosystems
Test #4 Respondus **LockDown Browser Required**
Required Comprehensive Final Exam – Respondus **LockDown Browser Required**

The first two assignments must be completed before unit modules will open.

This is a four and a half week course. To complete this course, some exams are scheduled close to a holiday. All assignments are open on the first day of class but have hard closing dates, so *work ahead to avoid interruptions to your holiday plans.*
Some assignments close on the weekend to avoid due dates on holidays.

LAB Required Assignments Calendar

All assessments, quizzes, the lab midterm, regular lecture exams, and the final exams will be administered online during test open dates and times. These are opened in the module on your Canvas **BIOL1106** sites. If available, click on the provided link. When closed or "unpublished," the link may not be seen.

Laboratory Course Schedule

The first two assignments on the schedule below are found in the "Start Here" module in Canvas. They must be completed before the other modules with assignments/assessments will open. You must submit the same assignments in the lecture and in the lab.

On the first day of class, the Lab Report Assessment, and Lab Quiz, will open. (*Opens 8 a.m., and closes at 10 p.m.*). Each assessment/quiz or exam is timed, and the timer will continue if disconnected or logged off until it is submitted. If submitted late (after logging back on), any work done after the time has elapsed will not be graded, and a notice will be posted that it was submitted late.

Some dates for assignments and assessments overlap in lecture and lab.

1. Submit Academic Integrity Statement* (in "Start Here" module) **2. Syllabus and Canvas Orientation Quiz* (in "Start Here" module)** *** Completion required before continuing course work.**	
Lab Report: All labs and lab reports must be completed. The lab report is used to take the Lab Report Assessment and the lab Quiz.	
LRA1 & Q1 Scientific Method (Must be completed **but lab report *not* submitted**)	
LRA 2 & Q2 Biochemistry (Complete lab report, but do not submit)	
LRA 3 & Q3 Cell Membrane and Transport **(*Submitted* by 10 p.m., for Data +5pts)**	
LRA 4 & Q4 Enzyme Kinetics (Completed but not submitted)	
LRA 5 & Q5 Photosynthesis ***START EARLY*** **(*Submitted* by 10 p.m., Data +5pts)**	
LRA 6 & Q6 Respiration (Complete lab report, but do not submit)	
***LAB MIDTERM EXAM* Labs 1-6** **(no makeups, 25% of grade)** Respondus **LockDown Browser Required**	
LRA 7 & Q7 Cell Division (Complete lab report, but do not submit)	
LRA 8 & Q8 Inheritance (Complete lab report, but do not submit)	
LRA 9 & Q9 Replication (Complete lab report, but do not submit)	
LRA 10 & Q10 Protein Synthesis (Complete lab report, but do not submit)	
LRA 11 & Q11 Evolution in Populations **(*Submitted* by 10PM, for Data +5pts)**	
LRA 12 & Q12 Population Ecology (Complete, but do not submit, overlaps lab final)	
***LAB FINAL EXAM* (no makeups, 25% of lab grade)** **covers Labs 7-12 (overlaps lecture exams)** Respondus **LockDown Browser Required**	

All assignments are open on the first day of class but have hard closing dates, so work ahead to avoid interruptions to your plans.
Some assignments close on the weekend to avoid due dates on holidays.

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 the 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 86% in the laboratory. So you do the following: (0.72*0.70) + (0.86 * 0.30) = final grade. If you perform this equation, you calculate 0.50 + 0.26 = 0.76 or 76% 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.

In the lecture portion of the course, there will be four regular tests (100 points each) and a ***required*** comprehensive final test (*your instructor will advise you on this matter*). The score on the final test may be used to replace the lowest test score (which may be a 0 if the student has missed a test). If a student scores lower on the final test than on all other tests, the final test will not count toward that student's final grade. In addition to the tests, students will be required to participate in other assigned assessments as determined by the instructor. Opportunities may be available for an additional 10 points of extra credit.

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

Lecture Categories	**Percentage of the Lecture portion of the grade**
Exam 1	20%
Exam 2	20%
Exam 3	20%
Exam 4	20%
Final Comprehensive Exam	20% (also Replaces lowest test score)

No makeup tests will be given once a test has been returned to the class. **Students MUST inform the instructor before a test if they are absent: email the instructor, phone the 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. Tests may be taken earlier than scheduled with the instructor for special circumstances. The date of each test will be announced at least one week before the test.

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 may be posted in the student's grade book in the course shell on Canvas.

Lecture Extra Credit

Opportunities are available for additional points of extra credit. No more than 10 points of extra credit can be given. Extra credit can be given for ***science-related*** current event reports (up to 2 points each), which must include a summary and critique with the article. If the article cannot be submitted, a full bibliography is expected. As many as 4 extra credit points can be earned by providing your instructor with web addresses for biology web sites that you have visited, (1 point each). You must critique the web site and tell how it was helpful to you in your studies in lecture and/or lab. You may not submit a web site that was visited as part of a lab assignment. All extra credit must be submitted before the last week of the semester.

In the laboratory portion of the course: Students ***must*** complete the lab and lab report. Each lab report will be used to complete the ***lab report assessment and lab quiz*** **online**. **Students will turn in a *lab report* for labs 3, 5, and 11 only**, and 5 points will be given for the data collected after conducting the experiments required for these labs. Students will receive a"0" for each quiz, and lab report assessment, and exam, they do not complete. Quizzes and assessments must be taken during dates here and on the Canvas calendar. Each quiz will be worth a maximum of 40 points and each lab report assessment will be worth a maximum of 60 points, (5 points for the data in lab reports for lab 3, 5, and 11 will be added to 55 points for the lab report assessment). To receive all 60 points on the lab report assessment a student must complete the minimum required activities and answer all of the questions asked during the lab simulation and then take the assessment. Example: 60 points for the *lab report assessment* + 40 points *quiz* =100 possible points for each lab. Some labs allow ***extra credit*** so these labs can provide a possible 105 points. All of the *quiz/lab report assessment* grades will be averaged and will constitute **50%** of the final grade.

Students will be given a ***lab midterm exam*** covering the first seven labs and a ***lab final exam*** covering the last five labs. The assessments, quizzes, and exams will be timed. Each may have a combination of multiple choice, true-false, and/or matching questions, and may include labeling of drawings. The *midterm* and *final* exam will each constitute 25%, (for a total of 50%), of the student's lab grade. THE ***MIDTERM*** AND ***FINAL EXAM*** WILL BE AVAILABLE ON SCHEDULED TEST DATES ONLY. CLICK ON "LAB MIDTERM EXAM" and "LAB FINAL" Canvas modules to find these exams. Each question will be delivered one at a time and may not be revisited.

Categories	**Percentage of Lab grade**
Daily grades (LRA + Q and 3 required lab reports submissions)	50%
Lab Midterm Exam (Labs 1-7)	25%
Lab Final Exam (Labs 8-12)	25%

No makeup tests will be given once a test has closed. **Students MUST inform the instructor before a test if they will be absent: email the instructor, phone the 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. Tests may be taken early as scheduled with the instructor for special circumstances.

Lecture Methods of Instruction

Chapter outlines, short videos, lectures, and/or PowerPoint presentations will be presented to highlight the key topics of each chapter. These are used to supplement **student reading**. To be successful students must read each chapter included in that test section, and use the provided supplements to reinforce/review read materials. Study questions will be provided to aid in preparation for exams. Some students may have difficulty downloading the PowerPoint presentations, depending on the type of internet service available. The PowerPoints are available for viewing and download by clicking on the textbook link on the biology lecture homepage of Canvas. Click on chapter and below the picture will be a PowerPoint hot button. Students are expected to use other internet resources to enhance their study. This course is essentially a self-directed study.

Lab Methods of Instruction

The instructor will provide a CANVAS website and order of lab activities/simulations, videos, and assignments for the students to complete. Students will prepare for the activities by reading support materials from the text and additional information that may be provided by the instructor. All testing for the lab is done online through the CANVAS website and not at a testing center.

MATERIALS:

Some purchased materials will be required to complete 3 labs. See the lab Canvas homepage for this information.

Course & Instructor Policies

Class Attendance

Your instructor is required to report your attendance to the registrar's office weekly. Logging into Canvas does not constitute attendance. A student must have participated by submitting assessments and assignments, to be counted as present. If a student has not participated in the course by the census date, the student will be reported as "Not Attending" and will be dropped from the course.

"Not Attending" is reported if the student has not submitted the academic integrity statement and attempts on the Syllabus/Canvas quiz by the census date.

Academic success is closely associated with regular attendance and course participation.
All successful students, whether on campus or online, are expected to be self-motivated.
All students are required to participate in courses regularly and are obliged to participate in class activities and complete and submit assignments following their professors' instructions. Students taking courses during compressed semester time frames such as mini-mester***, summer sessions***, and mid-semester 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. **Assignments missed in online courses are counted as an absence**. More than two (2) absences are considered to be excessive. Also, students' eligibility to receive financial aid or live in a College dormitory can be affected by withdrawal from courses. When withdrawal occurs, any tuition refund would be made per state regulations.

Student Conduct & Discipline

Internet Decorum

Students are expected to maintain integrity 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.

Students are expected to work with other students and the instructor online through emails and/or bulletin boards using written language that is appropriate and respectful.

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, 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 an unfair advantage to a student or the attempt to commit such acts.

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, 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.

Cheating includes using materials during the examination not authorized by the professor/test administrator, including cell phone resources, personal email, Google, Bing, or any other electronic search engines. The student may not deviate from the Canvas site at ***any time*** while in the testing environment and may not leave the exam at any time once it is opened. As you complete a quiz or an exam, a log is kept for your instructor to view and is evidence of deviation from the Canvas assessment site.

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.

An academic integrity statement must be signed and submitted online, from every student in the lecture and lab.

Student Responsibility

You have already decided 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.

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 campus-wide student policies may be found on our Current Student Page on our website: http://grayson.edu/current-students/index.html

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Laboratory Safety Guidelines

Safety is our number one priority. To that end, these are the 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. Students should wear appropriate attire for laboratory work. Students cannot wear open-toed shoes, e.g., sandals, "flip-flops."

4. 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.

5. Avoid spills: place liquids toward the center of the bench, away from the edges.

6. Labels: read labels carefully before removing substances from containers. Properly label glassware before use.

7. Mouth pipetting is prohibited; use mechanical pipetting devices.

8. 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.

9. Discard used chemicals and materials into appropriately labeled containers, do not dispose of them down the sink unless specified by the instructor.

10. Broken glass: be careful handling broken glassware with bare hands. Dispose of all cracked or broken glassware in special puncture-resistant containers found in the labs, not the regular trash can.

11. Report any spills, accidents, strange occurrences, or other safety incidents to the instructor.

12. Professional conduct is expected to avoid creating dangerous situations. If you have any questions concerning the safety of a procedure, consult your instructor.

13. Know the location of the Material Safety Data Sheets (MSDS's). These are available electronically.

14. Immediately report damaged equipment to your instructor.

15. Thoroughly wash hands with soap and water before leaving the laboratory.

Care of the Microscope

You will be using microscopes in this class. These are expensive and must be shared among laboratory sections. To this end, they must be used and cared for to ensure continued proper operation. The following is a list of basic handling and use of the microscopes.

1. Check the number on the microscope assigned to you with its corresponding place on the bench or 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 an acceptable 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 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 bench or cabinet, returning it to its appropriate (numbered) place**.**

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:
http://grayson.edu/current-students/index.html