General Biology 109L Laboratory

Room 1027- Forbes

Department of Organismal and Environmental Biology Christopher Newport University Spring Semester, 2019

Instructor:

Adam M. LundquistRoom 216 Menchville High School (office);Phone: 757.560.0821757.886.7722 ext 45216Adam.Lundquist@nn.k12.va.us (primary method of communication)Office Hours: by appointment; Tuesdays & Thursdays 1730 to 1800 Forbes 1027.

Course Goals and Objectives

- 1. This is a science class and thus, the emphasis will be on how science is done (methods and techniques). However, a portion of your grade will be based on your knowledge of scientific information provided during class and noted in your lab manual.
- 2. You will learn to collect and analyze data primarily as a group effort. However, your final report must be *written individually, unless otherwise directed,* to earn credit.
- 3. You will be expected to communicate scientifically. Therefore, your final written paper will include an introduction, methods, data, and conclusion. It is expected that all assignments be complete, organized, typed, and reflect knowledge learned (or at least, discussed) in class.
- 4. Biology 109 lab, along with one of the following lecture classes, is designed to meet one of the requirements of the Liberal Learning Core Curriculum: Biology, 107, 108, 111, 112, 113, 114, or 115. This class also satisfies the Natural Sciences distribution requirement listed in the older catalogs when taken with both Biology 107 and Biology 108. This course *is only provided to non-biology major students*.

Grades:

- 1. Assignments (60%)- There will be six (6) required assignments: five(5) subject specific assignments that correspond to scientific writing as a whole (8.6% per assignment), these assignments will break down a scientific paper into its 4 main components: introduction, methods, data, and conclusion. One (1) formal report will focus on the "Science and Wine" lab and will include all four parts, in which you will introduce your hypothesis using a MINIMUM of three (3) sources, state your procedures, and discuss the data you collected. Lastly explain your data using those three (3) sources or others in a comprehensive conclusion where you will either ACCEPT or REJECT your original hypothesis. The final report will count double the others (17% of your overall grade) and is due by the last day the class meets (the week of April 22nd). While assignments may be filed as partners, the formal report will be individually turned in. ALL reports must be turned in ELECTRONICALLY prior to class. *Google Documents will NOT be accepted, and corrupted files will be considered late.* Late reports may be accepted only with *prior approval and will be penalized on a case by case basis.*
- 2. **Quizzes (30%)** -There will be six (6) ten question quizzes, each given through Google forms. You will have a full week to complete the quiz, starting from when the topic is introduced in lecture till the next time class meets. Under *no circumstances* will you be able to take the quiz late, or make them up. If there is a technical problem with your quiz during the week contact me directly and I will work with you. Technical problems are not a valid reason for missing a quiz.
- 3. **Oral report (10%):** One (1) lab your partner and you will present orally. On the second day of class (the week of Jan. 14th), you will sign up with your partner for a presentation. It is your responsibility to prepare accordingly, no presentations will be allowed to be given late. Presentations should be under 10 minutes, and include:
 - **a.** *Introduction*: where you discuss interesting things on the topic at hand, and eventually draw a connection to the variables you tested;
 - **b.** *Methods*: where you VERY briefly discuss your procedures; keep in mind we all did the lab too, so how was your set up different from ours?
 - c. Data: Show and discuss your analyzed data
 - **d.** *Conclusion*: why did your data pan out the way it did? Could you have done something differently? What could you do to follow up this experiment? How does this experiment relate to your life? Etc.

There is NO final exam

Lab Text:

"Biological Science in the Laboratory" 6th Edition (Academx Publishing) by R.S. Mollick. Each student is expected to have a copy of this text. In some cases, the exercise protocol will assume that you have read an accompanying appendix/exercise. Preparation for each lab is expected.

Other Information:

Attendance policy:

<u>Students are expected to attend all labs</u>. There will be no opportunity to make-up missed lab activities. Students who miss class due to a medical or family emergency must contact Mr. Lundquist *as soon as possible* to discuss their individual situation. Students who miss class to represent the university must contact Mr. Lundquist *in advance* if they wish to arrange an alternative activity to receive credit for the week's assignment.

With the exception of an emergency in the field (not the case for these classes), cell phones are not to be used at any time during lab; please do not answer calls, make calls, <u>text</u>, or check your phone display in the classroom or in the field. Second warning will involve dismissal from class and an incomplete for the lab.

Academic integrity:

Students will strictly adhere to the high level of academic conduct expected of the CNU community. Each student's work submitted for evaluation should be the *sole product of that student's* effort unless specifically instructed otherwise. Violations of academic integrity include (1) all forms of cheating, including but not limited to copying another student's work, submitting false or constructed data, stealing or fraudulently obtaining exam questions or answers, and collaborating with other students when the instructor has designated the work should be done individually; (2) plagiarism, including submitting the written work of another as one's own; and (3) aiding another student in cheating. It is the responsibility of every student and instructor to report violations of academic integrity. Cases of academic dishonesty will be addressed according to university policy. Students should familiarize themselves with the CNU Honor Code found in the University Handbook.

Disabilities:

In order for a student to receive an accommodation for a disability, that disability must be on record in the Office of Student Affairs, 3rd Floor, David Student Union (DSU). If you believe that you have a disability, please contact Dr. Kevin Hughes, Vice President of Student Affairs (594-7160) to discuss your needs. Dr. Hughes will provide you with the necessary documentation to give to your professors.

Students with documented disabilities are to notify the instructor at least seven days prior to the point at which they require an accommodation (the first day of class is recommended), in private, if accommodation is needed. The instructor will provide students with disabilities with all reasonable accommodations, but students are not exempted from fulfilling the normal requirements of the course. Work completed before the student notifies the instructor of his/her disability may be counted toward the final grade at the sole discretion of the instructor.

Success:

I want you to succeed in this course and at Christopher Newport. I encourage you to come see me during office hours or to schedule an appointment to discuss course content or to answer questions you have. If I become concerned about your course performance, attendance, engagement, or well-being, I will speak with you first. I also may submit a referral through our Captains Care Program. The referral will be received by the Center for Academic Success as well as other departments when appropriate (Counseling Services, Office of Student Engagement). If you are an athlete, the Athletic Academic Support Coordinator will be notified. Someone will contact you to help determine what will help you succeed. Please remember that this is a means for me to support you and help foster your success at Christopher Newport.

Academic Support:

The Center for Academic Success offers free tutoring assistance for Christopher Newport students in several academic areas. Staff in the center offer individual assistance and/or workshops on various study strategies to help you perform your best in your courses. The center also houses the Alice F. Randall Writing Center. Writing consultants can help you at any stage of the writing process, from invention, to development of ideas, to polishing a final draft. The Center is not a proofreading service, but consultants can help you to recognize and find grammar and punctuation errors in your work as well as provide assistance with global tasks. Go as early in the writing process as you can, and go often!

You may visit the Center for Academic Success to request a tutor, meet with a writing consultant, pick up a schedule of workshops, or make an appointment to talk one-on-one with a University Fellow for Student Success. The Center is located in Christopher Newport Hall, first floor, room 123.

General Biology Lab 109L

Room 1027-Forbes Instructor: Adam M. Lundquist

Week of:*	Lab Exercise	Assignments Due
Jan 7	Introduction to the Biological Sciences	
Jan 14	Hands on Variation Part 1	Quiz One: Introduction to science
Jan 21	Hands on Variation Part 2	Quiz Two: Genetic variation & the Red Queen Hypothesis
Jan 28	Sweating and Sports Drinks Part 1	Assignment (Data)
Feb 4	Sweating and Sports Drinks Part 2	Quiz Three: Passive Transport & why fingers prune
Feb 11	Sweating and Sports Drinks Part 3	Assignment (Methods) Presentations
Feb 18	Evolution and Snails Part 1	
Feb 25	Evolution and Snails Part 2	Quiz Four: Evolution & Pokémon
Mar 4	Your Spring Break – No Lab	
Mar 11	Evolution and Snails Part 3	Assignment (Conclusion) Presentations
Mar 18	Science and Wine Part 1	
Mar 25	Science and Wine Part 2	Quiz five: Fermentation & ethanol
Apr 1	My Spring Break – No Lab	
Apr 8	Science and Wine Part 3	Assignment (Bibliography) Presentations
Apr 15	Nutrient Pollution Part 1	Quiz Six: BEES! FINAL PAPER
Apr 22	NO FINAL EXAM - EXAM WEEK	

*subject to change as necessary

If for any reason you cannot attend your lab section please come to one of my other sections either Tuesday 6-8pm, 8-10pm, or Thursday 6-8pm, 8-10pm. As a point of courtesy please inform me of when you wish to come. Due to the wide availability for make up, you will not be excused from any assignment, lab, or quiz for any reason.