**BIOLOGY 1015: General Biology Laboratory**

**Instructor contact info can be found on Canvas, under “Files.”**

**Lab Manager: Nick Wilbur**  **Email:** **NWilbur@uvu.edu**

Office: **SB 158 Phone: (801) 863 – 5785**

**Required Text:** NO TEXT REQUIRED – You will be supplied lab manual readings and worksheets via Canvas

**Required Materials:** Computer or electronic device capable of connecting to Canvas and completing Virtual labs. Proctorio will be used for quizzes, which requires a webcam and microphone as well as the use of a Google Chrome Extension. An optional quiz will be provided on the first day of class to test your system. If your system is not suited to meet these requirements, you should contact your instructor for alternative options or consider withdrawing from the course.

NOTICE:

THIS COURSE WILL FOLLOW AN A/B SCHEDULE DUE TO CONCERNS SURROUNDING COVID-19. This means that you will be assigned to either group A or B, and will attend class on alternating weeks based on which group you are in. Some weeks, you will attend a face-to-face lab as usual, and other weeks, you will complete a lab at home. – This is NOT an optimal method of instruction for a lab. You will lose valuable hands-on experience that would otherwise be present in a face-to-face lab. You should also consider that various professional and graduate programs may not accept online courses. If this is a concern, you should reach out to your Academic Advisor for guidance.

Approximately 50% of this course will be held on Canvas. You will need access to a computer that have internet capabilities and can run Respondus Lockdown Browser. Several at-home lab assignments will also require you to submit a picture of your experiment and/or results as evidence of completion - follow in-assignment instructions for submission requirements. If you do not have access to the technology necessary to complete the course, you should consider dropping and taking it at a time that it can be offered completely face-to-face. Exceptions to assignments will not be made for technical difficulties. Extra time and flexibility are already worked into each lab, so there will be no late-work accepted except in extreme circumstances where documentation is provided – Acceptance of late-work is at the sole discretion of the lab manager.

**Upon successful completion of this course, you should be able to:**

1. Demonstrate safe and effective use of basic laboratory equipment.
2. Use the processes of scientific inquiry to examine biological concepts including diffusion and osmosis, photosynthesis, cellular respiration, and ecological interactions.
3. Explain the biological principles of cell division, genetics, evolution, and the rationale behind the techniques used in biotechnology.
4. Effectively communicate scientific findings with peers and through written laboratory reports.
5. Compare and contrast reproductive structures of plants and animals.

**Evaluation**

Each lab will be evaluated with a worksheet and a quiz. There are a total of 11 labs but the lowest lab score will be dropped, allowing you a cushion to miss a lab should an emergency arise. It is advised that you do not miss ANY labs if possible because you will miss out on the information and it still allows you to drop your lowest score if you happen to do poorly on a quiz or worksheet.

**Grading**

Worksheets 220pts

Quizzes 100 pts

Final exam 100 pts.

Participation 33 pts.

**Total 453 pts.**

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| 94% and above | 90-93% | 87-89% | 83-86% | 80-82% | 77-79% | 73-76% | 70-72% | 66-69% | 60-65% | 55-59% | 55% and below |
| A | A- | B+ | B | B- | C+ | C | C- | D+ | D | D- | E |

**Participation**

This is a laboratory experience, which means that learning occurs through actual experiences. Because the course focuses on hands on experiences it is ESSENTIAL that you ATTEND class and stay for the ENTIRE class period. To encourage attendance, you will be given participation points. These are earned by arriving on time, being prepared for class, and working within your group. Participation points are at the discretion of the instructor. The lowest participation grade will be dropped. Basis for attendance for at-home labs will be determined by the instructor. **There are NO Make-up labs.**

**Quizzes**

Quizzes are given on Canvas and must be completed BEFORE the start of Class. Read the lab information/worksheet provided on Canvas before attempting the quiz. **There are NO Make-up quizzes**. All quizzes are multiple choice and the questions will be taken from the information found in the reading. You will need to study the lab carefully in order to do well on the quizzes. The lowest quiz will be dropped from your grade.

 **Worksheets**

Worksheets are meant to guide you through the lab exercise and you will be required to turn these in within 24 hours of the completion of the lab period. All lab worksheets must be submitted on Canvas. The lowest worksheet will be dropped from your grade

**Final Exam**

A final exam will be given on Canvas on the same day that you’d normally have class. All of the material for the final exam will be taken from the lab worksheets, quizzes, and labs. The final is comprehensive. The Final Exam MUST be taken during the assigned time, and there are no makeup finals. **DO NOT MISS THE EXAM!**

# **At Home Lab Materials**

The Lab Managers will be assembling items that you’ll need in order to complete at-home labs on your assigned weeks. The items in the package are carefully measured and you will need to be precise during your activities to ensure that you have enough materials. You will be responsible for coming to UVU campus to pick up your materials. These will be distributed at the end of the preceding lab (face-to-face), but you’ll need to make alternative arrangements if you miss that class. Keep in mind that all items provided by the Biology Department are intended for use with material relating to Biol 1015 and MUST be used only as directed.

**Attention students with disabilities**

Students who need accommodations because of a disability may contact the UVU Office of Accessibility Services (OAS), located on the Orem Campus in LC 312. To schedule an appointment or to speak with a counselor, call the OAS office at 801-863-8747. Deaf/Hard of Hearing individuals, email nicole.hemmingsen@uvu.edu or text 385-208-2677.

**Cheating**

Any students caught cheating will receive an “E” in the class and reported to academic affairs.

Biology 1015 Lab Schedule: Fall 2020

*Please take a close look at the schedule and plan accordingly!*

|  |  |
| --- | --- |
| **Weeks Labs take place (Group A and B):** | **Lab Name and Number** |
| 1 (A)2 (B) | Lab #1 Animal Behavior ***FACE-TO-FACE*** |
| 2 (A)1 (B) | Lab #2 Biological Macromolecules ***AT-HOME*** |
| 3 (A)4 (B) | Lab #3 Microscopes and Cells ***FACE-TO-FACE*** |
| 4 (A)3 (B) | Lab #4 Photosynthesis ***AT-HOME*** |
| 5 (A)6 (B) | Lab #5 Cellular Respiration ***FACE-TO-FACE*** |
| 6 (A)5 (B) | Lab #6 Cell Division ***AT-HOME*** |
| 7 (A)9 (B) | Lab #7 Microbiology ***FACE-TO-FACE*** |
| 9 (A)7 (B) | Lab #8 Genetic ***AT-HOME*** |
| 10 (A)11 (B) | Lab #9 Plant reproduction and Bio Classification ***FACE-TO-FACE*** |
| 11 (A)10 (B) | Lab #10 Natural Selection and Evolution ***AT-HOME*** |
| 12 (A)13 (B) | Lab #11 Animal Reproduction ***FACE-TO-FACE*** |
| 13 (A)12 (B) | Lab #12 Ecology and Animal Behavior ***AT-HOME*** |
| 14 (A and B) | **Final Exam *AT-HOME*** |

**Week 8 falls on Fall Break and no labs will be due**

**– DO NOT PROCRASTINATE – Your instructor will have limited ability to assist you with last minute questions/problems – get things done early so that you have time to get help if you need it**

**\* The Fall 2020 semester is heavily affected by the influence of COVID-19. Many decisions regarding course design and implementation are being made on a day-to-day and case-by case basis. For these reasons, all items on this syllabus are subject to change at any point.**