

BZ310: Cell Biology Lab – Fall 2023

Lab GTA: _____ Lab Section: _____

GTA Email: _____

Office Hours: _____

Welcome to BZ310 labs! This part of the course is intended to provide you with hands-on skills for investigating cell biology and to complement the lecture portion of the course. You and your group members will have various levels of knowledge and experience with science. Our goal is to work together as a team to help everyone succeed in BZ310. Each laboratory section will meet once a week for 2 hours and 50 minutes in Yates 303. We hope you enjoy your laboratory experience.

CSU Principles of Community

The principles of community support the CSU mission and vision of access, research, teaching, service and engagement. A collaborative and vibrant community is a foundation for learning, critical inquiry, and discovery. Therefore, each member of the CSU community has a responsibility to uphold these principles when engaging with one another and acting on behalf of the university.

INCLUSION	We create and nurture environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents and contributions.
INTEGRITY	We are accountable for our actions and will act ethically and honestly in all our interactions.
RESPECT	We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.
SERVICE	We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.
SOCIAL JUSTICE	We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all respects.

Course Objectives

The goal BZ310 lab is to develop the following lab competencies and skills within the field of cell biology:

- Ability to apply the process of science
- Ability to use quantitative reasoning
- Ability to use modeling and simulations
- Ability to tap into the interdisciplinary nature of science
- Ability to communicate and collaborate with others
- Ability to understand the relationship between science and society

Required Materials

- Access to Canvas; all lab handouts and procedures are found on the Canvas site for this course
- Lab Notebook
- Lab Coat
- Access to Microsoft Excel

Evaluation and Grading

The laboratory portion of the course accounts for 30% of your total course grade. Within the lab sections your grade is based on:

Grading Category	Description	Percentage of total
Assignments	2-5 assignments, 5-10 pts. each	10%
Quizzes	5 quizzes, 25-30 pts. each	35%
Lab Reports	2 lab reports, 40-50 pts. each	35%
Lab Notebook	Checked 3 times, 20 pts. each	10%
Participation	Checked 3 times, 10 pts. each	10%
TOTAL		100%

Reminder: You do not get a separate grade for BZ310 lab. Your BZ310 total grade will be incorporated as a percentage into the lecture gradebook. You will receive a letter grade in BZ310 that is a combination of lecture (70%) and lab (30%).

Lab Schedule

Week	Date	Topic	Items Due
1	21-Aug	Lab 1 Microscopy Participation Goals Setting	Science Laboratory Environment Inventory Pre-Survey Library Assignment
2	28-Aug	Lab 2 Basic Cell Biology Lab Equipment Using Excel	Excel Graph Quiz 1 - Online
3	4-Sep	No labs – Labor Day week	
4	11-Sep	Lab 3 Yeast Mating Type Analysis - Part I	
5	18-Sep	Lab 3 Yeast Mating Type Analysis - Part II	
6	25-Sep	Lab 4 Measuring the Activity of the Catalase Enzyme Lab Notebook Check 1	Quiz 2 - Online
7	2-Oct	Lab 5 DNA Analyses - Part I	
8	9-Oct	Lab 5 DNA Analyses - Part II	Quiz 3 - Online
9	16-Oct	GTA guided in-class discussions Participation Goals Check-In Laboratory Notebook Check 2	Catalase Enzyme lab report due
10	23-Oct	Lab 6 Insect Cell Culture Heat Shock – Part I	
13	30-Oct	Lab 6 Insect Cell Culture Heat Shock - Part II	
12	6-Nov	Lab 6 Insect Cell Culture Heat Shock – Part III	Quiz 4 - Online
13	13-Nov	Lab 6 Insect Cell Culture Heat Shock – Part IV	
14	20-Nov	Overeating and family strife week. No labs	
15	27-Nov	Lab 7 Membrane Permeability	Heat Shock lab report due Lab Notebook Check 3
16	4-Dec	Participation Goals Evaluation Science Laboratory Environment Inventory Post-Survey Final Quiz	

Academic Integrity

This course adheres to the CSU Academic Integrity Policy as found on the Student's Responsibilities page of the CSU General Catalog and in the Student Conduct Code.

All work turned in for grading (lab reports, quizzes, and lab notebooks, etc.) must be your original work. You may receive support from another classmate, textbooks, or the internet but do not use the work and present it as your own. At a minimum, violations will result in a grading penalty in this course and a report to the Office of Student Resolution Center.

Student Honor Pledge

I will not give, receive, or use any unauthorized assistance.

*See the course syllabus page in Canvas for additional information about BZ310 lab expectations and CSU student policies and resources.