

BZ120: Principles of Plant Biology Lab – Fall 2023

Lab GTA: _____ Lab Section: _____

GTA Email: _____

Office Hours: _____

Welcome to BZ120 labs! This part of the course is intended to provide you with hands-on skills for understanding plant 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 BZ120. Each laboratory section will meet once a week for 2 hours and 50 minutes in Yates 211. 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 BZ120 lab is to develop the following lab competencies and skills within the field of plant 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

- *Principles of Plant Biology: Laboratory Manual for BZ120, 4th Ed.* available at the CSU Bookstore. You should obtain a copy of the lab manual and bring it with you to the lab each week.
- Access to Canvas.
- Lab Notebook

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
Pre-Lab	2-5 pts. each	15%
Post-Lab	5-10 pts. each	25%
Assessments (quizzes)	10-20 pts. each	25%
Science Communication- Lab report, Plant of the Week Presentation	15-25 pts. each	25%
Participation	5-10 pts. each	10%
TOTAL		100%

Reminder: You do not get a separate grade for BZ120 lab. Your BZ120 total grade will be incorporated as a percentage into the lecture gradebook. You will receive a letter grade in BZ120 that is a combination of lecture (70%) and lab (30%).

Course Calendar

	Prior to Lab	Lab Topic	Following Lab
8/22-25		Lab 1 Experimental Design; Scientific Tools Participation Goals	Post Lab 1
8/29-9/1	Pre-Lab 2	Lab 2 Evolution of Plants	Post Lab 2
9/5-8	Pre-Lab 3	Lab 3 Seedless Plants	Post Lab3
9/12-15	Pre-Lab 4	Lab 4 Gymnosperms	Quiz 1
9/19-22	Pre-Lab 5	Lab 5 Angiosperms	Post Lab 5 Lab Report Part I
9/26-29	Pre-Lab 6	Lab 6 Natural Selection	Post Lab 6
10/3-6	Pre-Lab 7	Lab 7 Plant Growth - Mitosis	Post Lab 7
10/10-13	Pre-Lab 8	Lab 8 Stem Anatomy Participation Check-In	Quiz 2
10/17-20	Pre-Lab 9	Lab 9 Root Anatomy	Post Lab 9 Lab Report Part II
10/24-27	Pre-Lab 10	Lab 10 Leaf Anatomy; Water Relations	Post Lab 10
11/31-11/3	Pre-Lab 11	Lab 11 Respiration	Post Lab 11
11/7-10	Pre-Lab 12	Lab 12 Photosynthesis	Quiz 3
11/14-17	Pre-Lab 13	Lab 13 Plant Reproduction – Meiosis Plant of the Week Presentations	Post Lab 13
11/21-24		NO LABS: FALL BREAK	
11/28-12/1	Pre-Lab 14	Lab 14 Plant Growth - Hormones; Environmental Responses Plant of the Week Presentations	Post Lab 14
12/5-8	Pre-Lab 15	Lab 15 Plant/Animal Interactions Plant of the Week Presentations Participation Evaluation	Quiz 4

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 BZ120 lab expectations, GT Pathways, and CSU student policies and resources.