

BZ111 Biology of Animals Lab Syllabus (Fall 2023)

Welcome to the BZ111 Lab! BZ111 is a separate course from BZ110, for which you will receive an independent grade. ***This lab is intended to be a course for science majors***; the material covered, and the grading of assignments, is carried out with this expectation.

Required Materials:

Lab Manual: The text, ***Biology of Animals – BZ111 Lab Manual (4th edition)***, by Alpana Damle, Bluedoor Publishing, is **required**. The lab manual is available at the CSU Bookstore.

Laboratory Policies:

Attendance in laboratory is mandatory. There will be **no make-up labs, quizzes, exams, or practicals**. If you cannot attend your assigned lab section (for a legitimate reason, such as a university excused absence) during a given week, you may arrange to attend another lab section (to avoid receiving a “0” for that week’s lab quiz). To do this, you must ask permission of **both** your regular lab TA and the TA of the lab section you wish to attend. Please do not abuse this privilege of attending another lab section– this may be used for emergencies only. Be aware that a lab TA can require students to leave lab if they appear extremely ill and pose an issue of spread of a contagious disease. Lab times and contact information for all the TAs are available on your lab Canvas under ‘Lab Items.’

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.

Grading Policies:

Your laboratory grade will be based on weekly quizzes, 3 practicals, 2 lab reports, and attitude and participation in lab. The point break-down will be as follows:

Weekly quizzes	9 (highest of 11) @ 15 pts each	= 135 pts
Practical	3 @ 25 pts each	= 75 pts
Lab Reports	1 @ 20 pts	= 20 pts
	1 @ 50 pts	= 50 pts
<u>Attitude and Participation</u>		<u>= 20 pts</u>
Total possible points:		300 pts

The **quizzes** (worth **15 pts** each) will include questions relevant to the material you covered the previous week (12 pts.), plus material you will be covering in the current week's lab (3 pts.). **Therefore, you should read and become familiar with the introductory material and laboratory exercises each week before coming to class.** *If you miss the quiz, you will not be permitted to take it later or make it up at another time.* Lab reports must be typed in and submitted to Turnitin on canvas. Printed copies of lab reports will not be accepted for grading. Lab practicals will be given in-person or online – the nature of those will be decided in the first few weeks of the semester. Your TA will guide you through the practical format before the first practical is given in class.

You may drop your 2 lowest quiz scores. Lab report and practical scores may not be dropped. To earn the participation points fully, you must attend lab and participate in all lab activities each week.

Note: Your quiz or practical **will not be graded** if you do not **complete all of the lab exercises, including filling in your lab manual and/or cleaning up your work area** at the end of the laboratory period. For quizzes, practicals, and lab reports, you have ONE week after they are handed back to discuss your grade for points back. Once that week has passed, the grade will be frozen in the grade book. **There will be no extra credit given in this course.**

Students are responsible for cleaning up their work area and returning supplies to the appropriate location. Please make sure you complete the following items before leaving the laboratory:

1. All used blank slides washed, **dried**, and returned to the appropriate box
2. All prepared slides returned to the correct box
3. Your bench top (work area) wiped down with paper towel and cleaning solution
4. Any trash you generate must be disposed of properly (in the trash/dissection receptacle or glass waste container provided).
5. All dissecting equipment washed and returned to the appropriate location

NO FOOD OR DRINK IS ALLOWED IN THE LABORATORY!

Cell phones and other electronic devices must be in silent mode, and stored away during lab time (unless cell phones / cameras are being used as part of a laboratory activity)

For the latest information about the University's COVID resources, please visit the CSU COVID-19 site (<https://covidrecovery.colostate.edu/>).

If you are struggling in lab, it is strongly advised to attend your TA's office hours or set up another appointment if those times do not work for you. If you do not understand something, get help as soon as possible.

Academic dishonesty of any kind will not be tolerated and must be reported to student judicial affairs. We adhere to the CSU policies on academic integrity and classroom behavior which can be found in the CSU General Catalog for 2022-2023 at <http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/#academic-integrity>

*** If you have any general questions or concerns regarding the BZ111 Laboratory, you may contact the Laboratory Coordinator: Dr. Alpna Damle at apdamle@colostate.edu.** Please include your course name, section number, and lab instructor's name in any emails or phone calls.

Laboratory Schedule for BZ111 Fall 2023

<u>Week #/ Date</u>	<u>Topic</u>	<u>Exercise in Lab Manual</u>
1: 8/22-8/24	Scientific Method and Experimental Design	Ex. 1
2: 8/29-8/31	Quiz 1 Human Cardiopulmonary Physiology	Ex. 2
3: 9/5-9/7	Quiz 2 Lab Report Title, Intro, Materials/Methods with citations due to Turnitin Mitosis and Meiosis	Ex. 3
4: 9/12-9/14	Quiz 3 Mendelian Genetics	Ex. 4
5: 9/19-9/21	Quiz 4 Population Genetics	Ex. 5
6: 9/26-9/28	Practical 1 Using the Microscope: Cells and Protists	Ex.6
7: 10/3-10/5	Quiz 5 Porifera and Cnidaria Lab Report Results and Discussion with citations due to Turnitin	Ex. 7
8: 10/10-10/12	Quiz 6 Platyhelminthes, Nematoda, Annelida	Ex.8
9: 10/17-10/19	Quiz 7 Mollusca	Ex. 9
10: 10/24-10/26	Quiz 8 Complete Revised Lab Report due to Turnitin Arthropoda	Ex. 10
11: 10/31-11/2	Practical 2 Echinodermata	Ex. 11
12: 11/7-11/9	Quiz 9 Chordata	Ex. 12
13: 11/14-11/16	Quiz 10 Vertebrate Behavior and Diversity	Ex. 13
14: 11/21-11/23	NO LABS – FALL BREAK	
15: 11/27-11/29	Quiz 11 Fetal Pig Dissection	Ex. 14
16: 12/5-12/7	Practical 3	

Need Help?

CSU is a community that cares for you. If you are struggling with drugs or alcohol and/or experiencing depression, anxiety, overwhelming stress, or thoughts of hurting yourself or others please know there is help available. Counseling Services has trained professionals who can help. Contact 970-491-6053 or go to <http://health.colostate.edu>. If you are concerned about a friend or peer, tell someone by calling 970-491-1350 to discuss your concerns with a professional who can discreetly connect the distressed individual with the proper resources (<http://safety.colostate.edu/tell-someone.aspx>). Rams take care of Rams. Reach out and ask for help if you or someone you know is having a difficult time.

GT Pathways program course approval:

The Colorado Commission on Higher Education has approved BZ111 for inclusion in the Guaranteed Transfer (GT) Pathways program in the GT-SC1 category. For transferring students, successful completion with a minimum C– grade guarantees transfer and application of credit in this GT Pathways category. For more information on the GT Pathways program, go to <http://highered.colorado.gov/academics/transfers/gtpathways/curriculum.html>.

The content criteria and student learning outcomes (SLOs) listed below are required for GT-Pathways courses in the Natural and Physical Sciences content area, in the GTSC-1 (Lecture course with required laboratory) category. The peculiar numbering of the SLOs is due to the fact that they are excerpted from a comprehensive list of SLOs across all GT-Pathways courses. The SLOs are listed within categories that the GT-Pathways program calls “competencies” and are displayed in italics below.

Upon successful completion of this course students will be able to

Inquiry & Analysis:

1. Select or Develop a Design Process

a. Select or develop elements of the methodology or theoretical framework to solve problems in a given discipline.

2. Analyze and Interpret Evidence

a. Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus.

b. Utilize multiple representations to interpret the data.

3. Draw Conclusions

a. State a conclusion based on findings.

Quantitative Literacy:

4. Interpret Information

Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).

5. Represent Information

Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words).

Additional course-specific learning objectives:

6. Apply the scientific method to investigate scientific questions, and communicate their results to others;
7. Collect and analyze data to test hypotheses;
8. Demonstrate the proper and safe use of basic biological/scientific equipment, such as microscopes, balances, pipettes.
9. Demonstrate fundamental conceptual knowledge of plant cell structure, physiology, and metabolism;
10. Demonstrate fundamental conceptual knowledge of genetics & inheritance;
11. Demonstrate fundamental conceptual knowledge of whole-plant structure & physiology;
12. Demonstrate fundamental conceptual knowledge of the evolutionary diversity of plant-like organisms and plants.