

BIOL 1108L: Principles of Biology II Laboratory
Department of Biology
College of Science and Math
Valdosta State University
Spring 2024; Laboratory Syllabus

Laboratory: Bailey Science Center, room 1073 – Wednesday, 11:00 AM – 1:50 PM

Section A: CRN# 24681 (1 credit hour)

Instructor: ~~Instructor:~~ Eric Chambers (Dr. Chambers) Office: BSC 2214 Phone: 229-249-2736

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Course Description: A laboratory course to accompany BIOL 1108, with exercises dealing with anatomy and physiology of plants and animals.

Course Prerequisites: Grade of C or better in BIOL 1107 or permission of instructor

Course Overview: This lab is a companion to BIOL 1108. Lab exercises will provide you greater insight into the physiological processes of plants and animals. The lab will also introduce you to the diversity of life within the animal and plant Kingdoms as well as highlight evolutionary relationships among the phyla within these Kingdoms.

See Department of Biology Educational Outcomes and the University General Educational Outcomes as listed at the end of this syllabus

Required materials:

Lab Text: Grove, T. 2015. Biology Lab Manual. This is an e-book lab manual. You can purchase the lab manual in one of two ways:

1. Purchase an Access Cod at the Valdosta State University Bookstore and use the code to access the lab manual at <https://www.grlcontent.com/>
2. Purchase the Access Code directly through the publisher at the web site <https://www.grlcontent.com/>. The second option is less expensive than option #1 but you cannot use your VSU student aid, you must use a credit or debit card. There is a link in Blazeview to a pdf that explains registration for the lab manual.

How to Use the Lab Manual: The lab manual is an online manual. I will go over how to use this manual during the first week of class. But, briefly, each lab includes all the content necessary to understand and complete the lab. You are required to read the background information and you may complete the pre-lab assignment before coming to lab as extra credit. The page after the pre-lab assignment contains pdfs of the exercises that you will complete during lab and another pdf with all the background information. You can either view these documents on your phone, tablet, laptop computer, etc. in lab, OR you can print them off. You will need to be able to view the background information during lab in order to complete each lab, but you do NOT need to print them off if you have an electronic method for looking at the information. There are no computers in the lab for you to use.

I will provide you with a pdf for Lab #1 that includes background material as well as the homework assignment associated with this lab. This will allow you to complete the lab even if you are not able to purchase the lab manual before our first lab. If you have problems buying the manual because of slow financial aid please let me know. I will work with you until you are able to purchase the manual. **If you are retaking the class do not buy another access code for the manual, simply email Great River Support and they will give you access. Let me know if you have issues.**

Attendance: Lab will be held weekly on Wednesday at 11:00 am. Our lab is scheduled for 2 hours and 50 minutes each session. You are expected to attend **each** weekly lab session. This course follows the university policy on class absences:

“Whether online or face-to-face, a student who misses or does not participate in more than 20% of the scheduled course or course activities **could be** subject to receiving a failing grade in the course” – 2019-2020 Undergraduate Catalog

Also, as stated in the Undergraduate Catalog, “the University does not issue an excuse to students for class absences. In case of absences as a result of illness or special situations, instructors may be informed of reasons for absences, but these are not excuses”. I will consider all absences on a case-by-case basis.

Students who miss 3 or more labs during the course of the semester could be subject to the stated policy. If you are absent from the lab or know you will be absent from the lab, please contact me within 24 hours with the reason. If I consider it an excused absence, I may be able to give you an opportunity to attend another lab session during that same week.

No labs can be made up once the week has ended.

Athletes and other University representatives: Please let me know in advance if you will be missing a lab due to an away game or other required event, we can make arrangements for you to attend an alternative lab section.

Lab quizzes, assignments, and exams:

1. **In-class activities and homework assignments:** During each lab there will be graded activities that might involve the practical demonstration by the student of a laboratory skill (e.g., pig dissection), drawings of animal/plant specimens, and completion of data table from laboratory exercise. There will also be a limited number of homework assignments where you will perform data analysis and presentation (statistical tests and graphs).
2. **Online post lab quiz:** Each week there will be a Post-lab online assignment available for you to complete. These are open book quizzes of variable points and are found in your online lab manual. **They must be completed by 10:55 am each Wednesday of the week after completing the lab. You will be given two attempts for each quiz.**
3. **Lab Practical Exams:** There will be two lab practical exams, each worth 100 points. One will Questions are typically based upon PowerPoint images, but they may include microscope slides and whole/partial organism specimens. Lab practical exams can only be taken the day that they are scheduled.

- 4. Extra-credit points (up to 25 pts):** Extra-credit points can be earned taking the pre-lab quizzes found in the online laboratory manual. You will have two attempts for each quiz and the highest grade will count toward the extra-credit point calculation. The grade for each quiz will be automatically uploaded in the gradebook within the online lab manual (not on Blazeview). The percentage of correct answers will be used to calculate the extra-credit points. For example, if you have 85/93 correct answers for the pre-lab questions, that is equal to 0.9139; therefore $25 \text{ pts} \times 0.9139 = 22.85$ extra-credit points earned.

The pre-lab quizzes must be completed by 10:55 am each Wednesday before we complete that lab in class. For example, the pre-lab assignment for Lab 7 would need to be completed by 10:55 am on Wednesday, Jan. 24 in order to receive credit.

Lab grade:

Category	Points
Online Post Labs	137
In-class and Homework Assignments	120
Lab Practical Exams	200
Extra Credit	25
Total	457

Lab Conduct:

- Arrive on time
- It is recommended that you keep a lab notebook for taking lecture notes, recording lab data, preparing drawings of specimens and microscopic slides, etc. The notebook, along with the online lab manual, will be a great help to you as you prepare for the lab practical exams.
- No eating or drinking during the lab!!
- Students must take care of lab equipment. Notify the professor if something is not working properly or if something breaks during the course of the lab
- Each student will be assigned a microscope. It is the student's responsibility to properly use the microscope. Notify the professor if your microscope is not functioning properly.
- No texting! – Cell phones are only to be used for lab purposes (taking pictures, calculator, timer, etc.)

Academic Integrity: By taking this course, you agree that all required course work may be subject to submission for textual similarity review to Turnitin, a tool within BlazeVIEW.

Mid-term, or in-progress grades: The instructor is required to submit in-progress grades prior to mid-term (February 29, 2024). I will assign an overall average grade at this point on the normal scale of A-F viewable on Banner. Students receiving a grade of "D" or lower should therefore carefully evaluate their option of dropping this course by midterm without academic penalty. The deadline for withdrawal through Banner is March 7, 2024.

Biology Tutoring: The Academic Support Center (ASC) at Valdosta State University is located on the second floor of the Odum Library. The ASC provides free peer tutoring in core curriculum courses, including biology. Call 333-7570 to make an appointment, or visit their website at <https://www.valdosta.edu/asc/>

Privacy Act (FERPA): The Family Educational Rights and Privacy Act (FERPA) prohibits the public posting of grades by social security number or in any manner personally identifiable to the individual student. No grades can be given over the telephone or over email because positive identification can't be made.

Access Statement: Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit VSU's Access Office or email: access@valdosta.edu.

Title IX Statement: Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including pregnancy status, sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, national origin, disability, genetic information, or veteran status, in the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Title IX Coordinator: Maggie Viverette, Director of the Office of Social Equity, titleix@valdosta.edu, 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31608, 229-333-5463.

Campus Gun Carry Statement (HB 280): If you choose to carry a concealed weapon on campus, you are responsible for knowing and following the law. Refer here for FAQ: <https://www.valdosta.edu/administration/finance-admin/police/campuscarry/>

SOI Statement: At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available through SmartEvals. Students will receive an email notification through their VSU email address.

TENTATIVE LAB SCHEDULE AND TOPICS SPRING 2024

Jan. 8-12	No Lab
Jan. 15-19	Lab #1 – Basic Statistics
Jan. 22-26	Lab 7 - Animal Diversity I
Jan. 29-Feb. 2	Lab 8 - Animal Diversity II
Feb. 5-9	Lab 9 – Introduction to Animal Tissues
Feb. 12-16	Lab 10 – External and Internal Anatomy of the Fetal Pig
Feb. 19-23	Lab 11 – Sensory Systems
Feb. 26-1	Lab 12 – Cardiovascular System
Mar. 4-8	Lab Practical #1
Week of Mar. 11-15	Spring Break
Mar. 18-22	Lab 2 – Non-vascular plants
Mar. 25-29	Lab 3 – Vascular Plants
Apr. 1-5	Lab 4 – Plant cells, organs, and growth
Apr. 8-12	Lab 5 - Angiosperm Development
Apr. 15-19	Lab 6 – Plant Growth and Transpiration
Apr. 22-26	Lab Practical #2

BIOL 1108: General Principles of Biology II

This is a Core IMPACTS course that is part of the Technology, Mathematics & Sciences area.

Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help master course content, and support students' broad academic and career goals.

This course should direct students toward a broad Orienting Question:

- How do I ask scientific questions or use data, mathematics, or technology to understand the universe?

Completion of this course should enable students to meet the following Learning Outcome:

- Students will use the scientific method and laboratory procedures or mathematical and computational methods to analyze data, solve problems, and explain natural phenomena.

Course content, activities and exercises in this course should help students develop the following Career-Ready Competencies:

- Inquiry and Analysis
- Problem-Solving
- Teamwork

Valdosta State University General Educational Outcomes (GEO)

1. Students will demonstrate understanding of the society of the United States and its ideals.
2. Students will demonstrate cross-cultural perspectives and knowledge of other societies.
3. Students will use computer and information technology when appropriate.
4. Students will express themselves clearly, logically and precisely in writing and in speaking, and they will demonstrate competence in reading and listening.
5. Students will demonstrate knowledge of scientific and mathematical principles and proficiency in laboratory practices.
6. Students will demonstrate knowledge of diverse cultural heritages in the arts, the humanities, and the social sciences.
7. Students will demonstrate the ability to analyze, to evaluate, and to make inferences from oral, written and visual materials.
8. Students will demonstrate knowledge of principles of ethics and their employment in the analysis and resolution of moral problems.
9. Students will demonstrate understanding of the physical universe and the nature of science, and they will use scientific methods and/or mathematical reasoning and concepts to solve problems.

Department of Biology Educational Outcomes (BEO)

1. Develop and test hypotheses, collect and analyze data, and present the results and conclusions in both written and oral format used in peer-reviewed journals and at scientific meetings.
2. Describe the evolutionary process responsible for biological diversity, explain the phylogenetic relationships among the other taxa of life, and provide illustrative examples.
3. Demonstrate an understanding of the cellular basis of life.
4. Relate the structure and function of DNA/RNA to the development of form and function of the organism and to heredity
5. Interpret ecological data pertaining to the behavior of the individual organism in its natural environment; to the structure and function of populations, communities, and ecosystems; and to human impacts on these systems and the environment.