

BIOL 1108L: Principles of Biology II Laboratory
Department of Biology, College of Science and Math, Valdosta State University
Spring 2022; Laboratory Syllabus

Instructor: Dr. Eric W. Chambers, Associate Professor of Biology

Laboratory: BSC 1073 Section A: (CRN# 24676) Monday, 11:00 AM – 1:50 PM

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Office hours: Tues/Thurs 10:00-11:30 AM or by appointment.

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 complete the pre-lab assignment before coming to lab. 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.

Because our first lab, an introduction to statistics, will be a virtual lab because we cannot meet in the computer lab due an inability to practice physical distancing there. I will provide you with a pdf 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 Monday mornings. 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 lab or know you will be absent from 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 Conduct:

Lab quizzes, assignments, and practical exams:

Assignments will consist of weekly online assignments, periodic homework assignments, and two practical exams.

Pre-lab and Post lab assignments:

Each week there will be Pre-lab and Post-lab online assignments. Pre-lab online assignments must be completed by the start of the lab session. Pre-lab assignments will be worth 5 points (0 points if not completed and 5 points if completed).

Online post-lab assignments through the lab manual will be due at the start of your next lab period. The online post-lab assignments will be worth variable points. I will provide you with a schedule of due dates for pre-lab and post-lab assignments. No late assignments (unless I approve an exception). I am able to see when you complete the online assignments.

Homework assignments:

Some labs will require you to perform statistical analysis of data and to prepare graphs or tables using Microsoft Excel software. Data analysis for a lab will be discussed during the lab you collect data and will be due at the start of the next lab period. These assignments will be worth variable points. No late assignments (unless I approve an exception) and no emailed assignments will be accepted. Do not assume that you will have time immediately before lab to print assignments or finish online assignments; nonfunctional printers, no paper, slow internet etc. are not acceptable reasons for why you did not complete an assignment. It is good practice to plan ahead and have assignments completed and/or printed the day before your lab.

Lab Practical Exams:

There will be two lab practical exams, each worth 100 points. One will cover the unit on plants, and one will cover the unit on animal diversity and physiology. 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.

Lab grade:

60% - pre-lab and post-lab online assignments and homework assignments

40% - Lab Practical Exams

Lab Conduct:

- Arrive on time – Please maintain proper physical distancing while waiting in the hallways outside of class
- 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 (March 3, 2022). 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 10, 2022.

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.

Coronavirus Resources for Students: VSU cares about student success both on and offline, and a variety of resources are available to help students both academically and personally during the Spring 2022 semester.

One of the best resources is VSU's Coronavirus FAQ page located at <https://www.valdosta.edu/health-advisory/faq.php>. Information is available there about a variety of topics in VSU's return-to-campus plan. A website devoted to the health and wellness of VSU students can be seen at <https://www.valdosta.edu/administration/finance-admin/campus-wellness/student-resources.php>.

You can find information, including how you can access the Brightspace Pulse app that will allow you to view BlazeVIEW on your smartphone at <https://www.d2l.com/products/pulse/>. In BlazeVIEW, all VSU students have a course with guides for how to use tools in BlazeVIEW; search for "VSU BlazeVIEW Student Tutorial 2020."

VALDOSTA STATE UNIVERSITY GENERAL EDUCATIONAL OUTCOMES (GEO)

3. Students will use computer and information technology when appropriate. They will demonstrate knowledge of computer concepts and terminology. They will possess basic working knowledge of a computer operating system. They will be able to use at least two software tools, such as word processors, spreadsheets, database management systems, or statistical packages. They will be able to find information using computer searching tools.

4. Students will express themselves clearly, logically and precisely in writing and in speaking, and they will demonstrate competence in reading and listening. They will display the ability to write coherently in standard English; to speak well; to read, to understand, and to interpret the content of written materials in various disciplines; and to listen effectively and to understand different modes of communication.

5. Students will demonstrate knowledge of scientific and mathematical principles and proficiency in laboratory practices. They will understand the basic concepts and principles underlying scientific methodology and be able to collect, analyze, and interpret data. They will learn a body of scientific knowledge and be able to judge the merits of arguments about scientific issues. They will be able to perform basic algebraic manipulations and to use fundamental algebraic concepts to solve word problems and equations. They will be able to use basic knowledge of statistics to interpret and to analyze data. They will be able to evaluate arguments based on quantitative data.

TENTATIVE LAB SCHEDULE AND TOPICS SPRING 2022

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| Week of Jan. 10-14 | Lab 1 - Introduction to Basic Statistics |
| Week of Jan. 17-21 | No Labs due to Martin Luther King Jr. Holiday |
| Week of Jan. 24-28 | Lab 7 - Animal Diversity I |
| Week of Jan. 31-Feb. 4 | Lab 8 - Animal Diversity II |
| Week of Feb. 7-11 | Lab 9 – Introduction to Animal Tissues |
| Week of Feb. 14-18 | Lab 10 – External and Internal Anatomy of the Fetal Pig |
| Week of Feb. 21-25 | Lab 11 – Sensory Systems |
| Week of Feb. 28-Mar. 4 | Lab 12 – Cardiovascular System |
| Week of Mar. 7-11 | Lab Practical #1 Animal Diversity and Physiology |
| Week of Mar. 14-18 | Spring Break |
| Week of Mar. 21-25 | Lab 2 – Non-vascular plants |
| Week of Mar. 28-Apr. 1 | Lab 3 – Vascular Plants |
| Week of Apr. 4-8 | Lab 4 – Plant cells, organs, and growth |
| Week of Apr. 11-15 | Lab 5 - Angiosperm Development |
| Week of Apr. 18-22 | Lab 6 – Plant Growth |
| Week of Apr. 25-29 | Lab Practical #2 – Plant Diversity and Physiology |