BIOL 1108L: Principles of Biology II Laboratory
Department of Biology, College of Science and Math, Valdosta State University
Spring 2020; 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
Section C: (CRN# 24678) Tuesday: 2:00-4:50 PM

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Office hours: Tuesday and Thursdays @10:00-11:30 AM.

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 t 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. You can purchase the lab manual by purchasing an Access card at the Valdosta State University Bookstore.

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.

I will bring handouts for the first statistics lab, but I will not bring handouts for any of the later labs. If you have problems buying the manual because of slow financial aid see me. 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.

Lab quizzes, assignments, and practical exams:

Assignments will consist of weekly online assignments, periodic homework assignments, in class quizzes, 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 0 or 2 points (0 points if not completed and 2 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 Quizzes: At the start of lab each week I will give you a quiz over the previous week's lab exercise. These will be timed, PowerPoint quizzes (5 pts each). Unlike BIOL 1107 these quizzes **are not open-book**. The purpose of these quizzes is to help you prepare for the lab practical exams at the end of each lab unit. If you arrive late to lab or if you miss the lab for an unexcused reason you will not be able to take the quiz. All lab quiz grades will be figured into your final course grade (no quiz grades are dropped).

Lab Practical Exams
There will be two lab practical exams, each worth 50 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
50% - pre-lab and post-lab online assignments, homework assignments, and in-class quizzes
50% - Lab Practical Exams

Attendance Policy: 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 Conduct:

- **Arrive on time**. Assignments are due at the start of lab.
- A lab notebook is not required **but** it is strongly advised to maintain a laboratory notebook with drawings, descriptions, data etc. of the laboratory exercises. The notebook will help you study for the 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.
- Cell phones are not to be used in lab.

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 5, 2020). 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 12, 2020.

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@valosta.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 2020

Week of January 13	Lab 1 - Introduction to Basic Statistics (Room 3018)
Week of January 20	**Martin Luther King Jr. Holiday; NO LABS**
Week of January 27	Lab 7 - Animal Diversity I
Week of February 3	Lab 8 - Animal Diversity II
Week of February 10	Lab 9 – Introduction to Animal Tissues
Week of February 17	Lab 10 – External and Internal Anatomy of the Fetal Pig
Week of February 24	Lab 11 – Sensory Systems
Week of March 2	Lab 12 – Circulatory System
Week of March 9	**Lab Practical #1 – Animal Diversity and Physiology**
Week of March 16	**Spring Break; NO LABS**
Week of March 23	Lab 2 – Nonvascular, Seedless Plants
Week of March 30	Lab 3 – Vascular Plants
Week of April 6	Lab 4 – Plant Cells, Organ Structures, and Growth
Week of April 13	Lab 5 - Angiosperm Development
Week of April 20	Lab 6 - Growth and Transpiration
Week of April 27	**Lab Practical #2 – Plant Diversity and Physiology**

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.