

Syllabus
BIOL 1107L Sections G, I & Q: Principles of Biology Lab 1
Valdosta State University, Fall 2021

Laboratory (BSC 1085): Section G (CRN# 83337) Tuesday 9:30 - 12:20 pm
 Section I (CRN# 83339) Tuesday 2:00 - 4:50 pm
 Section Q (CRN# 83347) Thursday 2:00 - 4:50 pm

Dr. Mark Blackmore (BSC 2218), Ph: 259-5114, e-mail: mblackmo@valdosta.edu
Office hours: MWF 12-1:00 pm; Thurs 10-11 or by appointment

Course Objectives: The goal of this course is to assist students in learning, understanding, and implementing the scientific method using a variety of experimental techniques.

Learning Outcomes:

1. Develop and test hypotheses
2. Collect, analyze, and interpret data
3. Present data using graphs, tables and figures
4. Develop analytical skills necessary to interpret and explain graphs/figures
5. Acquire an understanding of basic biochemistry and enzymology
6. Develop and understanding of the cellular basis of life
7. Understand energy transformation in biological systems through the study of photosynthesis and metabolic reactions
8. Develop an understanding and appreciation for biotechnology and the molecular basis of life

Required Materials:

- 1) Goddard, R. H. 2010. Methods and Investigations in Basic Biology. 6th edition. Hayden-McNeil Publishing, Plymouth, Michigan.
- 2) Composition Book: 9 ¾ X 7 ½ in (Mead or similar is fine; Office Max, Office Depot, Walmart, Target, etc. – usually available for less than \$1.50)

Laboratory Assignments and Grading: Students will be graded on their performance in laboratory based on attendance, quiz grades, group lab projects, selected homework assignments, and other assignments as specified by your instructor. **There are NO MAKEUP LABS.**

Lab Quizzes or Assignments (100 points): Quizzes (worth 10 points each) are given weekly during the first 10 minutes of each laboratory. **DO NOT BE LATE.** You will not be allowed extra time if you are late. If you miss the quiz completely, you will receive a zero for the quiz. Some of the questions will cover the procedures and results of the previous week's exercises. Other questions will pertain to procedures for the upcoming lab. **You may use your lab notebook for the quizzes.**

Lab Reports (50 points): Information for each assignment will be provided in lab. There will be both individual and at least one group report in which a summary of the group lab results will be presented in standard scientific format.

N1 Lab notebook (50 points): A laboratory notebook is an important element for conducting scientific research. Each student will maintain a lab notebook for recording methods and materials employed in the experiment as well as the experimental results. Students are required to have their notebook at every lab class. Lab notebooks will be submitted and graded at periodic intervals throughout the semester. I will provide additional details throughout the semester.

Lab Conduct:

1. Please arrive on time. If you are late and the quiz has started, you will not be given additional time to complete it.
2. You **MUST** maintain a laboratory notebook with drawings, descriptions, data, etc. of the laboratory exercises. Please bring your notebook to lab each week. You may use your lab notebook during lab quizzes.
3. No eating or drinking in the lab is allowed. You may step out of the lab if you need to eat or drink something.
4. You 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.
5. You will be assigned a microscope. It is your responsibility to properly use the microscope. At the conclusion of the lab I will check each scope to make sure that it was put away properly. Please notify me if the microscope is not functioning properly.
6. Cell phones are not to be used in lab. This means no texting during the lab **unless** I give permission for cell phones to be out.
7. A laboratory course is a collaborative effort. You will often work with your lab group or a lab partner. Please be prepared for lab each week and be fully engaged in the lab experiments.

Attendance Policy: Attendance in lab is mandatory unless you are sick. Students should be seated at the beginning of class. If you are late, your attendance may not be acknowledged. The student is responsible for all material missed regardless of the reason for absences. **ABSOLUTELY NO LABORATORIES CAN BE "MADE UP"**. Laboratories in particular are important not to miss as stated above. In the event that a student will miss a lab, they should notify the instructor in writing within 24 hours of the missed lab. It is the instructor's prerogative to accept the excuse or not. Attendance will be recorded for lab sessions using the lab quiz. Students who miss two labs without an excuse or three labs total cannot receive a grade above a "D" in this lab course.

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. You will need to make arrangements with me to attend an alternative lab section.

LABORATORY EXERCISES

Week	Dates:	Topic:
1	Aug 16 – 19	Introduction to the Lab, Safety, and Laboratory Notebooks
2	Aug 23 – 27	Exercise 1: Introduction to the Use of the Scientific Method
3	Aug 30 – Sept 3	Exercise 2: Basic Light Microscopy
4	Sept 6 – 10	Labor Day week - NO LABS
5	Sept 13 – 17	Exercise 3: Light Microscopy Observations of cells and organisms
6	Sept 20 – 24	Exercise 4: Data Collection for Microscopy Project
7	Sept 27 – Oct 1	Exercise 5: Cellular Water Relations
8	Oct 4 – 8	Exercise 6: Protein Extraction & Quantification from Living Tissues Read Appendix C & D
9	Oct 11 – 15	Fall Break- NO LABS
10	Oct 18 – 22	Exercise 7: Enzymology Lab: Basics of Amylase Enzyme Activity
11	Oct 25 – 29	Exercise 9: Photosynthesis
12	Nov 1 – 5	Exercise 10: Cellular Reproduction: Cell Cycle, Mitosis & Meiosis
13	Nov 8 – 12	Handout: Crime Scene DNA Forensic RFLP Lab & Gel Electrophoresis
14	Nov 15 – 19	Exercise 14: Transformation of pGLO Plasmid into Bacteria
15	Nov 22 – 26	Thanksgiving Break- NO LABS
16	Nov 29 – Dec 3	Finish Ex. 14- Analyze Transformations

Special notes to students:

To protect the privacy of each student, grades will not be posted at any time nor will they be revealed over the telephone. This is university policy. Students are advised to consult the VSU web site for more information. Students are able to view their grades in the Gradebook of BlazeVIEW D2L.

Policy on cell phone, smart phones, and other internet-enabled devices:

Students should NOT use these devices during labs (turn them OFF). Exceptions may be made for use of timer or calculator functions, or camera for recording experimental data.

Academic Integrity:

Academic Honesty Policy: Cheating, and plagiarism (submitting another person's material as one's own, or doing work for another person which will receive academic credit) are impermissible. This includes the use of electronic devices, unauthorized books, notebooks, or other sources in order to secure or give help during an assignment or exam. If substantial evidence exists for a violation of this policy, the student(s) involved will receive a grade of 'F' for the course and an official record will be filed following the Academic Integrity Response along with a letter to the Dean of Students. See also: <http://www.valdosta.edu/academic/AcademicHonestyPoliciesandProcedures.shtml>
<https://www.valdosta.edu/academics/academic-affairs/academic-honesty-at-vsua.php>

Special needs:

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. For more information, please visit VSU's Access Office or email: access@valdosta.edu.

Administration of online Student Opinion of Instruction (SOI):

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 on BANNER. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one week before the end of the term). SOI responses are anonymous to instructors/administrators. Instructors will be able to view only a summary of all responses after they have submitted final grades. While instructors will not be able to view individual responses or to access any of the data until after final grade submission, they will be able to see which students have or have not completed their SOIs. These compliance and non-compliance reports will not be available once instructors are able to access the results. Complete information about the SOIs, including how to access the survey and a timetable for this term is available at SOI Procedures and Timelines (located at <https://www.valdosta.edu/academics/academic-affairs/sois/> under "Information for Students - Directions for Accessing and Completing SOIs").

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 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: The Director of the Office of Social Equity, titleix@valdosta.edu, 1208 N. Patterson St., N. Patterson St., Valdosta State University, Valdosta, Georgia 31698, 229-333-5463.

Policy on Face Coverings

As the Blazer Creed articulates, members of the VSU community are expected to live by the high standards of civility, integrity, and citizenship, and embrace their responsibility as a member of the Blazer community. In recognition of this responsibility, and in response to the best available science and current guidance from the Centers for Disease Control and Prevention and the Georgia Department of Public Health, every student is strongly encouraged to wear a face covering that covers their nose and mouth at all times while in any campus building, including in this classroom. Students should also be sure to maintain a safe distance from their fellow students and instructor, wash their hands often and cover coughs and sneezes. The best protection from the SARS-CoV-2 virus (Covid-19) is vaccination. Vaccines are available at no cost at the Student Health Center.

Coronavirus Resources Available 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 Fall 2021 semester. One of the best resources is VSU's Coronavirus FAQ page located at <https://www.valdosta.edu/health-advisory/coronavirus.php>. Information is available there about a variety of topics in VSU's campus plan. A website devoted to the health and wellness of VSU students can be seen <https://www.valdosta.edu/administration/student-affairs/student-health/covid-19-health.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 2021."