

Valdosta State University

BIOL 1107: Principles of Biology I (Lab syllabus) Spring 2016

Laboratory (BC 1083): **Section A: Monday 10:00 AM -12:50 PM**
 Section B: Monday 2:00-4:50 PM
 Section D: Wednesday 11:00 AM – 1:50 AM

Instructor: Dr. Eric W. Chambers
Office: Bailey Science Center, Room 2214
Phone: 249-2736
E-mail: ewchambers@valdosta.edu
Office hours: Wednesday 1:00-2:00 PM

Text:

- Goddard, R. H. 2010. Methods and Investigations in Basic Biology. 6th edition. Hayden-McNeil Publishing, Plymouth, Michigan.

Lab Conduct

- **Arrive on time!!!** If you are late and the quiz has started, you will be given no additional time to complete it.
- You **MUST** maintain a laboratory notebook with drawings, descriptions, data, etc. of the laboratory exercises. The notebook will help you study for the quizzes.
- **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.
- Students will be assigned a microscope. It is the student's responsibility to properly use the microscope. After lab the professor will check each scope to make sure that it was put away properly. Failure to do so will result in one (1) point being subtracted from the student's total lab points (not the final percentage) each week it is not put away properly. Notify the professor if your microscope is not functioning properly.
- Cell phones are not to be used in lab. **Do NOT text during labs!**

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 (100 points): A 10-point quiz will be administered at the beginning of each lab. You will have 10-minutes to complete the quiz. All quizzes are open lab book. In order to achieve high quiz scores you will need to (a) review/read the each lab exercise before attending that week, and (b) complete the lab and all associated graphs and tables. **The lowest quiz score will be dropped.**

Lab Assignments (75 points): Information for each assignment will be provided in lab.

A1 Independent Group Microscope Project (25 points): Each lab group will develop and complete an experiment and write a summary of the group lab results in standard scientific format. Further information will be provided in lab. All students are required to complete this assignment.

A2 Enzymology report (25 points): Each student will complete a short report on data collected during Exercise 8 Enzymology: Investigation of the effects of temperature and pH on enzyme activity. This will be a data intensive project where you will create and interpret graphs. Further information will be provided in lab. All students are required to complete this assignment.

A3 Lab Notebooks (25 points): Each student will keep a detailed lab notebook. The lab notebook must be a composition notebook (9.75" X 7.5"). An example of an acceptable lab notebook will be shown to you in lab. **Three ring binders are not an acceptable form of the lab book.** Information regarding how to fill out your notebook will be provided to you during the first lab session of the semester.

Course Assessment exercise (10 points): each student will complete a 10-point course assessment quiz on the final day of lab. This test will cover basic concepts that you learned in both lecture and lab.

To assess your lab grade divide the total points earned by the total possible points (185) & then multiply by 100.

Table 2.

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	R1	A1	A2	A3	Total*
10	10	10	10	10	10	10	10	10	10	10	10	25	25	25	

Q= Laboratory Quiz, A= Laboratory Assignment in or outside of class, R1 = lab

assessment. Use the empty second row in the table above to keep track of your individual points and lab percentage at any point in the semester.

*The lowest quiz score is dropped

Notes on grading: Students should note that a grade of "A" in this course represents an exemplary command of the material covered. To obtain this grade of excellence, it is recommended that students study daily and clarify with their instructor any problems regarding course information, as they arise.

Mid-term, or in-progress grades: The instructor is required to submit in-progress grades prior to mid-term as posted. In theory, a mid-term grade is necessary for a student to assess how s/he is doing in class by midterm. In this course, students will have feedback on at least one major exam by midterm, several lab quizzes, lab assignments, and any homework or writing assignments. The instructor will, in general, 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.

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, s/he 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 the lab.

Athletes and other University representative: 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 for you to attend an alternative lab section.

Attention!: You must attend the entire lab session. If you leave early or don't return following a break you will be counted as absent for that lab session

Tentative Laboratory Schedule, BIOL 1107, Section A,B, D – SPRING 2016

LABORATORY EXERCISES

Lab	Week of	Topic	Assignment
1	JAN 11	Ex. 1 Lab Introduction and Scientific method	
--	JAN 18	No lab – Martin Luther King Jr. Holiday	
2	JAN 25	Ex. 2 Basic Light Microscopy	Quiz 1
3	FEB 1	Ex. 3 Observation of Living Cells with Light Microscopy	Quiz 2
4	FEB 8	Ex. 4 Independent Group Microscopy Projects	Quiz 3
5	FEB 15	Ex. 5 Cellular Water Relations	
6	FEB 22	Ex. 6 Protein Extraction and Quantification from Living Tissues	Quiz 4; Microscopy Lab report due.
7	FEB 29	Ex. 7 Enzymology: α -Amylase Activity	Quiz 5
8	MAR 7	Ex. 8 Enzymology: Investigation of the Effects of Temperature and pH on α -Amylase Activity	Quiz 6; Turn in lab Notebooks for initial evaluation
--	MAR 14	No Lab – Spring Break	
9	MAR 21	Ex. 13 – Identification of Foodstuffs from Genetically Modified Organisms	
10	MAR 28	DNA Fingerprinting using Restriction Enzymes (handout)	Quiz 7; Assignment 2 due at beginning of lab
11	APR 4	Ex. 10 Mitosis/Meiosis	Quiz 8
12	APR 11	Transformation of the pGLO Plasmid into Bacteria	Quiz 9
13	APR 18	Mendelian Genetics Lab (handout)	Quiz 10
14	APR 25	Lab Assessment	Quiz 11; Submit lab notebooks for second evaluation.