

Valdosta State University

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

Laboratory (BC 1083): **Section M: Wednesday 12:00-2:50 PM**
 Section N: Thursday 9:30 AM-12:20 PM

Instructor: Dr. Eric W. Chambers
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Phone: 249-2736
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Office hours: Tuesday and Thursday 1:45-2:45 pm or by appointment

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): Quizzes (worth 10 points each) are given weekly during the first 10 to 15-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. The lowest quiz score will be dropped.**

Lab Assignments and Lab notebook (70 points): Information for each assignment will be provided in lab.

A1: Group Microscope Project Proposal (15 points): The group members will work together to write a proposed experiment that will be completed the following week. Each experiment will state a hypothesis with predicted results. Further information will be provided at a later date.

A2: Independent Microscopy Lab Report (35 points): Each lab member 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.

N: Lab Notebook (20 points): Each lab member will keep a detailed laboratory notebook. You will be provided with additional details about the notebook during the first lab. Notebooks will be checked at midterm and at the end of the semester.

Course Assessment exercise (10 points): You will complete a 20 question course assessment quiz on the final day of lab.

To assess your lab grade divide the total points earned by the total possible points (170) & then multiply by 100.

Table 2.

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	LA1	A1	A2	N	Total*
10	10	10	10	10	10	10	10	10	10	10	10	15	35	20	170

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 M, N - FALL 2016

LABORATORY EXERCISES

Lab	Week of	Topic	Assignment
1	AUG 15-19	No Lab	
2	AUG 22-26	Lab Introduction and Ex. 1 Black box/Scientific method	
3	AUG 29- SEPT 2	Ex. 2 Basics of the light microscope	Quiz 1
--	SEPT 5-9	Labor Day – No Class	
4	SEP 12-16	Exercise 3 – Observation of living cells	Quiz 2
5	SEP 19-23	Ex. 5 – Cellular water relations	Quiz 3
6	SEP 26-30	Ex. 4 Independent Group microscope project	Quiz 4; A1 Due: Group Proposal (end of class) N1: Notebook check # 1
7	OCT 3-7	Ex. 4 Independent Group microscope project See Appendix B	Quiz 5 Complete experiment
--	OCT 10,11	Fall Break – No labs	
8	OCT 17-21	Exercise 6: Protein extraction & Quantification from living tissues Read Appendix C & D	Quiz 6
9	OCT 24-28	Exercise 7: Enzymology Lab: basics of α -amylase activity	Quiz 7 A2 Due: Group Research Paper (Exercise 4)
10	OCT 31- NOV 4	Exercise 8: Enzyme Regulation: Investigation of the effects of temperature and pH on α -amylase activity	Quiz 8
11	NOV 7-11	Exercise 10: Cellular Reproduction: Cell Cycle, Mitosis & Meiosis Mendelian Genetics Handout- In class exercise	Quiz 9
12	NOV 14-18	Exercise 14: GMO Detection with PCR	Quiz 10
13	NOV 21-25	Thanksgiving Break- NO LABS	
14	NOV 28- DEC 2	Finish Ex. 14- Gel electrophoresis	Quiz 11 LA #1 Lab Assessment Quiz N2: Notebook check # 2