

# Valdosta State University

## BIOL 1107: Principles of Biology I (Lab syllabus) Fall 2015

**Laboratory (BC 1085):**    **Section A: Monday 9:00-11:50 AM**  
                                  **Section B: Monday 1:00-3:50 PM**  
                                  **Section E: Wednesday 1:00-3:50 PM**

Instructor: Dr. Eric W. Chambers

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Office hours: Tuesday and Thursday 10:00 -11:00 am 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 ( points):** Information for each assignment will be provided in lab.

**A1 Group Microscope Project (35 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 Biotechnology report (25 points):** Each student will complete a short report on data collected during one of the biotechnology experiments conducted during the last third of the semester. Further information will be provided in lab. All students are required to complete this assignment.

**BIOL 1107 Assessment exercise (15 points)**

**To assess your lab grade divide the total points earned by the total possible points (200) & then multiply by 100.**

**Table 2.**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	A1	A2	A3	R1	Total*
10	10	10	10	10	10	10	10	10	10	10	35	25	25	15	200

**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 E - FALL 2015**

**LABORATORY EXERCISES**

<b>Lab</b>	<b>Week of</b>	<b>Topic</b>	<b>Assignment</b>
1	AUG 17	Lab Introduction and Ex. 1 Black box/Scientific method	
2	AUG 24	Ex. 2 Basics of the light microscope	Quiz 1
3	AUG 31	Exercise 3 – Observation of living cells	Quiz 2
--	SEP 7	<b>Labor Day – No Class</b>	--
4	SEP 14	Ex. 5 – Cellular water relations	Quiz 3
5	SEP 21	Ex. 4 Independent Group microscope project	Quiz 4, Design and begin experiment
6	SEP 28	Ex. 4 Independent Group microscope project	Complete experiment
7	OCT 5	Ex. 6 – Protein extraction and quantification	Quiz 5
--	OCT 12	Ex. 7 - $\alpha$ -amylase activity	Quiz 6, Assignment 1 due at beginning of lab
8	OCT 19	<b>Fall Break – No Class</b>	--
9	OCT 26	Ex. 8 – Enzymology: Investigation of the effects of temperature and pH on enzyme activity	Quiz 7, Begin Assignment 2
10	NOV 2	Ex. 10 – Cell reproduction: Mitosis, Meiosis, and cytokinesis	Quiz 8, Assignment 2 due at beginning of lab
11	NOV 9	Mendelian genetics lab, Handout	Quiz 9
12	NOV 16	Ex. 13 – Identification of Foodstuffs from Genetically Modified Organisms	Quiz 10
--	NOV 23	<b>No Labs – Thanksgiving break</b>	--
13	NOV 30	Crime Scene Lab, Handout	Quiz 11, Assignment 3 due at the beginning of lab