Valdosta State University

BIOL 1107: Principles of Biology I (Lab syllabus)
Fall 2012

Laboratory (BC 1083): M 12:00 - 2:50 PM
Section P (CRN #80540)

Instructor: Dr. Eric W. Chambers
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Office hours: Thursday 1:00-2:00 PM or by appointment

Text:

- Goddard, R. H. 2010. Methods and Investigations in Basic Biology. 5th 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 with the exception of using them as timers when necessary**. 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*:* 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.**

Lab Assignments: Information for each assignment will be provided in lab.
Group Microscope Project*:* 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.

Laboratory Notebook: Each member of a lab group should actively participate in the lab work and should keep a well-organized notebook of his or her lab work. Notebooks can be used during the lab quizzes. More information will be provided in lab.

To assess your lab grade divide the total points earned by the total possible points & multiply by 100.
Table 2.

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	A 1	A 2	A 3	Total
10	10	10	10	10	10	10	10	10	10	10	10	20	15	15	170

Q= Laboratory Quiz, **A**= Laboratory Assignment in or outside of class
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.

<u>Notes on grading:</u> 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.

Those students with other laboratory instructors can calculate your overall grade as follows:
(Lab percentage grade X 0.25) + (lecture percentage grade X 0.75) = Overall percentage grade

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.

Tentative Laboratory Schedule, BIOL 1107, Section P - FALL 2012

LABORATORY EXERCISES

Lab	Week of	Topic:
1	August 13	Laboratory Introduction Ex. 1 Introduction to the Use of the Scientific Method
2	August 20	Ex. 2 Basics of the Light Microscope.
3	August 27	Ex. 3 Observation of Living Cells with Light Microscopy; Group project proposal
--	September 3	**Labor Day – No Labs**
4	September 10	Ex. 4 Independent Group Microscopy Project: Data collection lab
5	September 17	Ex. 5 Cellular Water Relations; lab report 1 due
6	September 24	Ex. 6 Protein extraction & quantification
7	October 1	Ex. 7 Enzymology: α-amylase activity
8	October 8	Ex. 8 Enzymology: Investigation of the effects of temperature on enzyme activity
--	October 15	**Fall Break – No Labs**
9	October 22	Ex. 9 Photosynthesis; enzyme activity assignment due
10	October 29	Ex. 10 Cellular reproduction: Mitosis, Meiosis, & Cytokinesis
11	November 5	Ex. 11 Start isolation of plasmid DNA from E. coli Ex. 12 PCR-based VNTR Human DNA typing
--	November 12	**No Lab – ASTMH meeting**
12	November 19	Run and analyze gels for exercise 11 and 12 Ex. 14 Start Transformation of pGLO plasmid into bacteria
13	November 26	Day 2 of 2: Complete Ex. 14; last quiz