

**BIOL 1107K: Principles of Biology I**  
**Valdosta State University, Fall 2017, Lab syllabus**

Laboratory (BSC 1085):       Section H (CRN# 82060) Tues. 9:30 am - 12:20 pm  
  Section K (CRN# 82063) Wed. 12:00 - 2:50 pm

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Office hours: Tuesday and Thursday 2:00 -3:30 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 (100 points):** Information for each assignment will be provided in lab.

**A1 Group Microscope Project (50 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 Course Assessment Quiz (10 points):** A short lecture/lab quiz will be completed on during the final lab period.

**N1 Lab notebook (15 points):** each student will maintain a lab notebook for recording procedures and data. It will be reviewed by the instructor during the final lab period.

**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	N1	Total*
10	10	10	10	10	10	10	10	10	10	10	50	25	10	15	200

Q= Laboratory Quiz, A1, A2 = Laboratory Assignment, A3 = lab assessment, N1 = lab notebook. 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

**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, Sections H, K - FALL 2017

### LABORATORY EXERCISES

Lab	Week of:	Topic:
1	Aug.14-18	Introduction to the Lab, Safety, and Laboratory Notebooks
2	Aug. 21-25	<b>Exercise 1:</b> Introduction to the Use of the Scientific Method
3	Aug. 28- Sept. 01	<b>Exercise 2:</b> Basic Light Microscopy
--	Sept. 04-09	Labor Day- <b>NO LABS</b>
4	Sept. 11-15	<b>Exercise 3:</b> Light Microscopy Observations of cells and organisms; Basic "5 Kingdom" levels of organization.
5	Sept. 18-22	<b>Exercise 4:</b> Independent Microscopy Project <b>Read Appendix A &amp; B</b>
6	Sept. 25-29	<b>Exercise 4 Cont'd:</b> Independent Microscopy Project: Data collection lab; Distribution of microscopic flora and fauna.
7	Oct. 02-06 <b>Oct. 5- Midterm</b>	<b>Exercise 6:</b> Protein extraction & Quantification from living tissues <b>Read Appendix C &amp; D; A1 Rough draft due</b>
--	Oct. 09-13	Fall Break- <b>NO LABS</b>
8	Oct. 16-20	<b>Exercise 7:</b> Enzymology Lab: basics of $\alpha$ -amylase activity <b>A3 Due: Final draft of lab report (Exercise 4)</b>
9	Oct. 23-27	<b>Exercise 8:</b> Enzyme Regulation: Investigation of the effects of temperature and pH on $\alpha$ -amylase activity
10	Oct. 30-Nov. 03	<b>Human Identification / Crime Scene:</b> RFLP & Gel Electrophoresis <b>Mendelian Genetics Handout-</b> In class exercise;
11	Nov. 06-10	<b>Bioinformatics Exercise:</b> Handout in class & computer lab; <b>A2 enzymology assignment due</b>
12	Nov. 13-17	<b>Exercise 14:</b> Transformation of pGLO plasmid
--	Nov. 20-24	Thanksgiving Break- <b>NO LABS</b>
13	Nov. 27- Dec. 01	<b>Finish Ex. 14-</b> Analyze Transformations Lab Assessment Exam <b>(A3)</b> <b>N1: Notebook check</b>