

**BIOL 1107: Unifying Principles of Biology
Valdosta State University, Spring 2017: Laboratory Syllabus**

Lecture (BC 1011): M W F 12:00 – 12:50 p.m.- Dr. Emily Cantonwine

Laboratory (BC 1083): Section A (CRN # 21240): M / 9:00 - 11:50 a.m. - Dr. Ring

Section E (CRN # 21244): W / 9:00 - 11:50 a.m. - Dr. Ring

Ring Office hours (BC 2084): M & W 3:30-4:30 p.m. **Phone:** 249-4841, **Email:** bcring@valdosta.edu

TENTATIVE LABORATORY EXERCISES:

Lab	Week of:	Topic:
1	Jan.09	Introduction to the Lab, Safety, and Laboratory Notebooks
--	Jan. 16	MLK Day- NO LABS
2	Jan. 23	Exercise 2: Basic Light Microscopy
3	Jan. 30	Exercise 3: Light Microscopy Observations of cells and organisms
4	Feb. 06	Exercise 4: Group Microscopy Project: <u>Proposal Discussion</u> Read Appendix A & A1 Due: Group Proposal (end of class)
5	Feb. 13	Exercise 4 Cont'd: Independent Microscopy Project: Data collection lab; Distribution of microscopic flora and fauna. A2 Due: Exercise 4, Summary of Group Results (end of class), See Appendix B N1: Notebook check # 1
6	Feb. 20	Exercise 5: Cellular Water Relations
7	Feb. 27 Mar. 2- Midterm	Exercise 6: Protein extraction & Quantification from living tissues Read Appendix C & D
8	Mar. 06	Exercise 7: Enzymology Lab: basics of α -amylase activity A3 Due: Group Research Paper (Exercise 4)
9	Mar. 13	SPRING BREAK- NO LAB
--	Mar. 20	Exercise 8: Enzyme Regulation: Investigation of the effects of temperature and pH on α -amylase activity
10	Mar. 27	DNA Fingerprinting: Crime Scene Investigation (Handout)
11	April 03	Exercise 10: Cellular Reproduction: Cell Cycle, Mitosis & Meiosis
12	April 10	Exercise 13: Genetically Modified Organisms- Part I
13	April 17	Exercise 13: Genetically Modified Organisms- Part II Genetics Handout- Part I
14	April 24	Exercise 13: Genetically Modified Organisms- Part III Genetics Handout- Part II N2: Notebook check # 2

Summary of Laboratory Grade (100% points):

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	A1	A2	A3	N1	N2	P	Total
20	20	20	20	20	20	20	20	20	20	20	20	20	20	45	25	25	25	400

Q= Laboratory Quiz, **A=** Laboratory Assignment in or outside of class, **N=** Laboratory Notebook Check, **P=** Participation

Your laboratory grade is computed as a percentage of your total points (x) from the total possible (y), where $(x / y) \times 100 =$ laboratory percentage. Use the empty third row in the table above to keep track of your individual points and lab percentage at any point in the semester. Quizzes are given weekly at the beginning of lab during the first 20 minutes. Quizzes may be given by clicker or a combination of paper and clicker. You will have only the time allotted at the beginning of lab to take the quiz. **No make-up quizzes allowed.** Assignments are listed in the above Laboratory Exercises as A1-A3 along with a short description. Notebook checks are listed twice during the semester and are performed during class time as indicated or at the discretion of your instructor(s). Participation is awarded based on continuous effort of the student both individually and as a group member as observed by the instructor.