

**BIOL 1107: Unifying Principles of Biology**  
**Valdosta State University,**  
**Fall 2014: Laboratory Syllabus**

Lab Instructor: Fiifi A.D  
 Biol 1107 (CRN # 81729)  
 Lab Room: Science Building 1083  
 Time - T 9:30am-12:20pm  
 Office: Science Building 1218

Office Hours: T 2:00 – 3:15 pm or by  
 appointment  
 Phone: Office 333-5769  
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**Tentative Laboratory Exercises:**

<b>Lab</b>	<b>Week of:</b>	<b>Topic:</b>
<b>1</b>	Aug.18-22 (M)	Introduction to the Lab, Safety, and Laboratory Notebooks <b>Exercise 1:</b> Introduction to the Use of the Scientific Method
<b>2</b>	Aug. 25-29 (M)	<b>Exercise 2:</b> Basic Light Microscopy
--	Sept. 01-05 (M)	Labor Day- <b>NO LABS</b>
<b>3</b>	Sept. 08-12 (M)	<b>Exercise 3:</b> Light Microscopy Observations of cells and organisms; Basic "5 Kingdom" levels of organization.
<b>4</b>	Sept. 15-19 (M)	<b>Exercise 4:</b> Group Microscopy Project: <u>Proposal Discussion</u> <b>Read Appendix A</b>  <b>Exercise 5:</b> Cellular Water Relations
<b>5</b>	Sept. 22-26 (M)	<b>Exercise 4 Cont'd:</b> Independent Microscopy Project: Data collection lab; Distribution of microscopic flora and fauna.
<b>6</b>	Sept. 29- Oct. 03 (M) <b>Oct. 2- Midterm</b>	<b>Exercise 6:</b> Protein extraction & Quantification from living tissues <b>Read Appendix C &amp; D</b>
<b>7</b>	Oct. 06-10 (M)	<b>Exercise 7:</b> Enzymology Lab: basics of $\alpha$ -amylase activity
<b>8</b>	Oct. 13-17 (M)	<b>Exercise 8:</b> Enzyme Regulation: Investigation of the effects of temperature and pH on $\alpha$ -amylase activity
<b>9</b>	Oct. 20-24 (M)	<b>Exercise 9:</b> Photosynthesis
<b>10</b>	Oct. 27-31 (M)	<b>Exercise 10:</b> Cellular Reproduction: Cell Cycle, Mitosis & Meiosis
<b>11</b>	Nov. 03-07 (M)	<b>Crime Scene Forensic Biology Lab-</b> Part I (Handout)
<b>12</b>	Nov. 10- 14 (M)	<b>Crime Scene Forensic Biology Lab-</b> Part II
<b>13</b>	Nov. 17-21 (M)	<b>Exercise 14:</b> pGLO Transformation
--	Nov. 24-28 (M)	Thanksgiving Break- <b>NO LABS</b>
<b>14</b>	Dec. 01-05 (M)	<b>Exercise 14:</b> pGLO Transformation Analysis

**Grading system**

Task	Maximum Points Possible
12 quizzes	120
3 Assignments	50
2 Note book checks	50
Participation	30
<b><i>Total</i></b>	<b><i>250</i></b>

(Your total / 250) X 100 = laboratory grade

Final lab grades are based on the following cumulative point totals:

Score	Percentage %	Grade
225 and above	90 and above	A
224.9 - 200	80	B
199.9 - 175	70	C
174.9 - 150	60	D
149.9 and lower	Lower than 60	F

Quizzes are given weekly at the beginning of lab during the first 10 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.