

**BIOL 1107K: Principles of Biology I**  
**Summer II Semester 2012, 4 Credit hours (weekly: 3 hr lecture, 3 hr lab)**  
**Department of Biology, College of Arts & Science, Valdosta State University**

**Lecture (BC 1025): M T W R 9:35 a.m. 11:00 a.m.**

**Laboratory (BC 1083): Section A (CRN #50099): T & R / 11:10 a.m. - 2:00 p.m.**

**Section B (CRN #50852): T & R / 2:10 a.m. - 5:00 p.m.**

**Instructor: Dr. Brian C. Ring**

Office: BC 2092

Office hours: **M W** 11:00 a.m. 12:00 p.m. (after lecture)

Phone: 229-249-4841 (Dept. office 333-5759)

email: bcring@valdosta.edu (**please use WebCT first**)

**Pre-Requisites:** None. Note this course is for science majors.

**Co-**





**TENTATIVE LABORATORY EXERCISES:**

<b>Lab</b>	<b>Day:</b>	<b>Topic:</b>
<b>1</b>	June 07 (R)	Introduction to the Lab, Safety, and Laboratory Notebooks
<b>2</b>	June 12 (T)	<b>Exercise 1:</b> Introduction to the Use of the Scientific Method
<b>3</b>	June 14 (R)	<b>Exercise 2:</b> Basic Light Microscopy
<b>4</b>	June 19 (T)	<b>Exercise 3:</b> Light Microscopy Observations of cells and organisms; Basic "5 Kingdom" levels of organization.
<b>5</b>	June 21 (R)	<b>Exercise 4:</b> Group Microscopy Project: Proposal Discussion <b>A1 Due: Group Proposal (end of class), read Appendix A</b>
<b>6</b>	June 26 (T)	<b>Exercise 4</b> : Independent Microscopy Project: Data collection lab; Distribution of microscopic flora and fauna. <b>A2 Due: Exercise 4, Summary of Group Results (end of class), see Appendix B</b>
<b>7</b>	June 28 (R)	<b>Exercise 5:</b> Cellular Water Relations
<b>8</b>	July 3 (T)	<b>Exercise 6:</b> Protein extraction & Quantification from living tissues <b>Read Appendix C &amp; D</b> <b>N1:</b> Notebook check # 1
--	July 5 (R)	<b>NO LABS</b>
<b>9</b>	July 10 (T)	<b>Exercise 7:</b> Enzymology Lab: basics of -amylase activity <b>A3 Due: Group Research Paper (Exercise 4)</b>
<b>10</b>	July 12 (R)	<b>Exercise 8:</b> Enzyme Regulation: Investigation of the effects of temperature and pH on -amylase activity
<b>11</b>	July 17 (T)	<b>Exercise 10:</b> Cellular Reproduction
<b>12</b>	July 19 (R)	<b>DAY 1 of 2:</b> <b>Exercise 14:</b> Bacterial Transformation of Recombinant Green Fluorescent Protein (GFP) <b>Exercise 12:</b> PCR-based VNTR Human DNA Typing
<b>13</b>	July 24 (T)	<b>DAY 2 of 2:</b> Finish above.

6 20Q 14

July 26 6 20Q