

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)

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

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

Co-

TENTATIVE LABORATORY EXERCISES:

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

6 20Q 14

July 26 6 20Q