

**VALDOSTA STATE UNIVERSITY**  
**BIOLOGY 1107: Principles of Biology I**  
**Fall 2014—Lab Section L**

**INSTRUCTOR:** Dr. J. A. NIENOW

**OFFICE:** 2089 Biology/Chemistry Building; 249-4844

**OFFICE HOURS:** Mondays & Wednesdays 4:00 – 5:00, Thursdays 1:00 – 2:00, or by appointment

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**GENERAL LAB RULES**

- Arrive on time. Weekly quizzes start as soon as the lab is scheduled to start and end when the instructor says they end; no extra time is given to late arrivals.
- Maintain a laboratory notebook with drawings, descriptions, data etc. of the laboratory exercises. The type of notebook is up to you, what you put in it must conform to the format provided on the handout.
- No eating or drinking during the lab.
- Attendance to lab is mandatory. If a student misses three labs **for any reason** the student cannot earn higher than a D for his/her final grade. Except under extenuating circumstances, labs cannot be made up outside of scheduled laboratory sessions. Students are still responsible for all lab content even if they received an excused absence.
- 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. Microscopes will be assigned to individual students; failure to properly care for and put away the microscopes will result in 1 point being subtracted from total number of points available during the semester (not final grade percentage).
- 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 two (2) points being subtracted from the student's quiz grade for each infraction (up to 14 points per quiz) each time it is not put away properly. Notify the professor if your microscope is not functioning properly.

**GRADING**

**LAB QUIZZES (GEO 5 & 7; BEO 1):** Expect a 20-minute, 10- to 20-point quiz at the beginning of each laboratory. **DO NOT BE LATE.** As stated previously, quizzes start as soon as the lab is scheduled to start and end when the instructor says they end; no extra time is given to late arrivals. If you miss the quiz completely, you will receive a zero for the quiz; microscope penalties will still be assessed. The questions will cover the procedures and results of the previous week's exercises--pay particular attention to the independent and dependent variables when appropriate.

**LABORATORY NOTEBOOK (GEO 5):** Each member of a lab group should actively participate in the lab work and should keep a well-organized notebook of his or her labwork (see separate handout for details). Notebooks will be collected at the end of each week and checked for style and completeness.

**SEMI-INDEPENDENT LABORATORY PROJECT(GEO 3, 4 & 5, BEO 1):** Each group is responsible for developing and carrying out an semi-independent project involving the use of a microscope as directed by the instructor. See exercise 4 in the lab manual.

**LABORATORY REPORT (GEO 3, 4 & 5, BEO 1):** Each student is responsible for writing, and re-writing as directed two formal lab reports in the style of scientific papers, based on a labs assigned by the instructor.

**OTHER ASSIGNMENTS:** Other laboratory work may be assigned periodically. Be prepared.

The total number of points you earn on the lab assignments and quizzes will be submitted to your lecture instructor, who will use them in the calculation of your final grade.

## TENTATIVE LAB SCHEDULE AND TOPICS

Week of August 18	Exercise 1: The Black Box
Week of August 25	Exercise 2: Basic Light Microscopy
Week of September 1	NO LABS—HOLIDAY
Week of September 8	Exercise 3: Observing Living Cells
Week of September 15	Exercise 5: Cellular Water Relations
Week of September 21	Exercise 4: Semi-Independent Microscope project—Part I
Week of September 29	Exercise 6: Protein Extraction and Quantification
Week of October 6	Exercise 7: Enzymology—Measuring $\alpha$ -amylase Activity
Week of October 13	Exercise 8: Enzymology—Investigation of Temperature and pH
Week of October 20	Exercise 9: Photosynthesis
Week of October 27	Exercise 10: Cell Reproduction
Week of November 3	Exercise 11: Isolation of DNA from bacteria
Week of November 10	Exercise 13: Genetically modified food
Week of November 17	Exercise 14: Transformation of E. coli with pGLO
Week of November 25	NO LABS—HOLIDAY
Week of December 2	Data analysis, end of course assessment