

**VALDOSTA STATE UNIVERSITY**  
**BIOLOGY 1107: Principles of Biology I**  
**Fall 2018—Lab Section K**

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

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

**OFFICE HOURS:** MW 1:00 - 2:00, TTh 2:00 - 3:00 or by appointment

**EMAIL:** [jnienow@valdosta.edu](mailto:jnienow@valdosta.edu)

**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.
- 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 lab work (see separate handout for details). Notebooks will be collected weekly 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 a 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

August 16	Exercise 1: The Black Box
August 23	Exercise 2: Basic Light Microscopy
August 30	Exercise 3: Observing Living Cells Exercise 4: Semi-Independent Microscope project—Part I
September 6	LABOR DAY – NO LABS (work on proposals)
September 13	Exercise 5: Cellular Water Relations Exercise 4: Semi-Independent Microscope project—Part II
September 20	Exercise 4: Semi-Independent Microscope project—Part III
September 27	Exercise 6: Protein Extraction and Quantification
October 4	Exercise 7: Enzymology—Measuring $\alpha$ -amylase Activity
October 11	FALL BREAK – NO LABS
October 18	Exercise 8: Enzymology—Investigation of Temperature and pH
October 25	Exercise 9: Photosynthesis
November 1	Exercise 10: Cell Reproduction
November 8	Exercise 12: DNA fingerprinting Exercise 13: Genetically modified food
November 15	Exercise 14: Transformation of <i>E. coli</i> with pGLO
November 22	THANKSGIVING – NO LABS
November 29	Data analysis, end of course assessment