

VALDOSTA STATE UNIVERSITY
BIOLOGY 1107: Principles of Biology I
Spring 2019—Lab Section G

INSTRUCTOR: Dr. J. A. NIENOW

OFFICE: 2089 Biology/Chemistry Building; 249-4844

OFFICE HOURS: Mondays, Tuesdays & Thursdays 2:00 – 3:00 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.
- 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. Associated with this project will be a formal lab report written in the style used by scientists when they publish their work (GEO 3, 4 & 5, BEO 1).

OTHER ASSIGNMENTS: Other homework base on laboratory exercises 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.

BIOLOGY 1107—SPRING 2019
LAB SCHEDULE AND TOPICS

Week of January 14	Exercise 1: The Black Box
Week of January 21	NO LABS—MLK HOLIDAY
Week of January 28	Exercise 2: Basic Light Microscopy
Week of February 4	Exercises 3: Observing Living Cells Exercise 4: Microscope project—Introduction
Week of February 11	Exercise 4: Microscope project—Proposals due Exercise 5: Cellular Water Relations
Week of February 18	Exercise 4: Microscope project—Set up Exercise: Mushroom project—Microscopic observations
Week of February 25	Exercise 4: Microscope project—Data collection and analysis
Week of March 4	Exercise 6: Protein Extraction and Quantification
Week of March 11	Exercise 7: Enzymology—Measuring α -amylase Activity
Week of March 18	NO LABS—SPRING BREAK
Week of March 25	Exercise 8: Enzymology—Investigation of Temperature and pH
Week of April 1	Exercise 9: Photosynthesis
Week of April 8	Exercise 10: Cell Reproduction
Week of April 15	Exercise: Mushroom project—Isolation & analysis of DNA
Week of April 22	Exercise: Mushroom project—Gel electrophoresis Exercise 14: Transformation of <i>E. coli</i> with pGLO Exercise: Introduction to Bioinformatics
Week of April 29	Exercise 14: Transformation of <i>E. coli</i> with pGLO—Data analysis Exercise: Mushroom project—Applied bioinformatics End of course assessment

