

BIOL 1107L Sections A and D: Principles of Biology Laboratory I

Spring 2023: Laboratory Syllabus

Instructor: Dr. Emily Cantonwine (she/her)
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Office (Student) hours: **Mondays and Wednesdays 3:30 PM – 5:00** **Fridays 10:30 – 12:00**

Laboratory Sections: **A: Mondays** 11:00am – 1:50pm – **BC 1083**
 D: Wednesdays 11:00am – 1:50pm – **BC 1083**

Pre- or Corequisite: BIOL 1107: Unifying Principles of Biology I.

*Note a grade of C or higher is required in both lecture and lab for Science and Math students and some Health Science students.

Course Description: A laboratory course to accompany BIOL 1107 lecture, with exercises dealing with the cellular nature of life.

Required Laboratory Manual: R. H. Goddard. *Methods and Investigations in Basic Biology* (Custom VSU manual). 6th Edition.

Required Laboratory Notebook: A dedicated bound notebook (e.g., “mead composition notebook”) must be maintained for deposition of each laboratory exercise following the guidelines in the above lab manual. This notebook must always be present with you during lab sessions for data collection.

Laboratory Assignments and Grading: Your grade is computed as a percentage of your total points (x) from the total possible (y), where $(x / y) \times 100 =$ laboratory percentage. Quizzes are given weekly at the beginning of lab during the first 10 minutes. You will have only the time allotted at the beginning of lab to take the quiz. **No make-up quizzes allowed.** Assignments & due dates are listed in the tentative schedule.

Attendance Policy: Attendance will be recorded using the lab quiz. Students arriving between 11:10-11:30, may put their name on a quiz to be counted present, but may not complete the quiz. Students arriving >30 minutes late may enter the lab but will not be counted as present. Any student leaving lab without my permission before the lab is complete will be counted absent. In the event that a student misses a lab with an excuse, she/he/they should contact me within 24 hours of the missed lab and schedule a time to take the missed quiz. This must happen before the following lab period. It is my prerogative to accept the excuse or not.

SORRY, LABORATORIES CAN NOT BE "MADE UP." Absences (excused or otherwise) resulting in >20% of missed laboratory time (i.e. three labs) may result in an automatic grade of F as per University policy. Full absence regulations are available in the online catalog at <http://catalog.valdosta.edu/undergraduate/academic-affairs/>

Cell phone policy: Cell phone use is not allowed during lab. One point will be taken off of your quiz if a cell phone is observed during lab for any unapproved purpose. This includes, checking your text messages. Refer to the Lab manual for lab rules.

Academic Integrity: By taking this course, you agree that all required course work may be subject to submission for textual similarity review to Turnitin, a tool within Blazeview.

LABORATORY SCHEDULE (tentative per professor's discretion)

Week	Date	Topic
1	Jan. 9–12	Introduction - Exercise 1: Introduction to the Scientific Method
2	Jan. 16–19	MLK Week- NO LABS
3	Jan. 23–26	Skills - Exercise 2: Basic Light Microscopy
4	Jan. 30 – Feb. 2	Application - Exercise 3: Microscopy of Living and Preserved Organisms
5	Feb. 6–9	Experimentation - Exercise 4: Group Microscopy Project
6	Feb. 13–16	Skills and Application - Exercise 5: Cellular water relations – assays and dilutions. <i>Draft of Assignment 1 due – Hypothesis, Results, & Conclusions</i>
7	Feb. 20–23	Skills - Handout: Spectroscopy and micro-pipetting <i>Assignment 1 due – Hypothesis, Results, & Conclusions</i>
8	Feb. 27–Mar. 2	Application- Exercise 6: Protein Extraction & Quantification from Living Tissues
9	Mar. 6–9	Application- Exercise 7: Enzymology Lab: Basics of Amylase Enzyme Activity
10	Mar. 13–16	Spring Break – NO LABS
11	Mar. 20–23	Experimentation - Exercise 8: Enzymology Investigation of pH and temperature
12	Mar. 27–30	Experimentation - Handout: Photosynthesis <i>Draft of Assignment 2 due – Hypothesis, Results, & Conclusions</i>
13	Apr. 3–6	Skills and Application - Handout: Mushroom barcoding, Part I (microscopy, DNA extraction & PCR) <i>Assignment 2 due – Hypothesis, Results, & Conclusions (final report)</i>
14	Apr. 10–13	Skills and Application - Handout: Barcoding Part II (electrophoresis, PCR clean-up, dilution for sequencing)
15	Apr. 17–20	Skills and Application - Handout: Molecular Exercise 2, Part I
16	Apr. 24–27	Skill and Application - Handout: Barcoding Part III (Sequence interpretation, species hypothesis testing); Molecular Exercise 2, Part II <i>Assignment 3 completed in class; Assignment 4 due – lab notebook</i>
17	May 1–4	NO LAB. FINALS WEEK

Summary of Laboratory Grade (100% points):

Quizzes											Assignments				Total
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	A1	A2	A3	A4	
10	10	10	10	10	10	10	10	10	10	10	25	25	15	50	225

Q= Laboratory Quiz, A= Laboratory Assignment in or outside of class

Privacy Act (FERPA): The Family Educational Rights and Privacy Act (FERPA) prohibit the public posting of grades by social security number or in any manner personally identifiable to the individual student. No grades can be given by email or over the telephone, as positive identification cannot be made by this manner. Grades will be posted through Blazevue course website.

Biology Tutoring: The Academic Success Center (ASC) at Valdosta State University is located in the Odum Library and is available to all students. The ASC provides free peer tutoring in core curriculum courses, including biology, chemistry, math, writing, and foreign languages. The SSC also provides free professional academic advising and on-campus job information in one location. Call 333-7570 to make an appointment or visit the website: www.valdosta.edu/asc.

Access Office: Students requesting classroom accommodations or modifications due to a documented disability must contact the Access Office for Students with Disabilities located in the Farber Hall. The phone numbers are 245-2498 (V/VP) and 219-1348 (TTY) or visit the website or email access@valdosta.edu.

Title IX Statement: Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, disability, genetic information, or veteran status, in the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Title IX Coordinator: the Director of the Office of Social Equity, titleix@valdosta.edu, 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31698, 229-333-5463.

Campus Gun Carry Statement (HB 280): If you choose to carry and concealed weapon on campus, you are responsible for knowing and following the law. Refer here for FAQ: valdosta.edu/administration/finance-admin/police/campuscarry/