

Valdosta State University, BIOL 1107 Section F Spring, 2014 Laboratory Syllabus & Policies

Lab Instructor: Prafull C. Shah

Office: BC 2092

Phone: (229) 259-5035

Email: pcsah@valdosta.edu

Office hours: After classes, or Wednesdays 3:30 PM to 5:00 PM or by appointment by Email.

Required Text

R.H. Goddard. 2011. Methods and Investigations in Basic Biology. Sixth Edition. Hayden-McNeil Publishing, Plymouth, MI.

Lab Grade (25% of BIOL 1107 grade)

Quizzes (12): Graded as follows:

Quiz 1: 11 points

Quiz 2: 13 points

Quiz 3: 13 points

Quiz 4: 13 points

Quiz 5: 13 points

Quizzes 6 – 12: 10 points each

Lab assignments (3): 25 points each

Lab Assessment (1): 25 points

For a TOTAL of 233 points you may earn during Semester.

Your lab grades will be posted to the BIOL 1107 section Grade Book on Blazeview

Lab quizzes. There will be a 9 point quiz at the beginning of each lab session, so do not be late for lab! The quizzes will be based on material from the **previous lab, Appendices (8 pt.), and the current lab (3 pt.)**. Quizzes are open notebook, but the lab manual may not be used.

Lab Assignments. Each assignment is worth 25 points. For Freshman Learning Communities, these assignments may be a joint effort between BIOL 1100, MATH 1111, MATH1112, or ENGL 1101.

Lab Notebook. Students are required to keep a lab notebook in a ½" 3-ring binder. The lab notebook will be used on weekly lab quizzed, so it is each student's responsibility to see that it contains all the information required to provide answers to quizzes.

Attendance Policy: Students who miss two labs without an excuse or three labs total cannot receive a **lab grade** above a "D" (60%). Attendance will be recorded using the lab quiz, which will be given the first 10 minutes of the lab. So, do not be late to lab. In the event that a student misses a lab with an excuse, s/he should email the instructor within 24 hours of the missed lab. It is the instructor's prerogative to accept the excuse or not. **ABSOLUTELY NO LABORATORIES CAN BE "MADE UP."**

Student Conduct: 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.

Laboratory Schedule, BIOL 1107 Section "F", Spring, 2014

LABORATORY EXERCISES:

Week	Day:	Topic:
1	Jan. 16	Laboratory Introduction – What is Science, Exercise 1 – “The Black Box”
2	Jan. 23	Exercise 2: Basic Light Microscope Operation and Microscope checkout. Use of Light Microscope
3	Jan. 30	Exercise 3: Observation of living cells with Light Microscopy; Basic cellular organization Independent microscopy lab proposals discussed.
4	Feb. 6	Exercise 5: Cellular water Relations
5	Feb. 13	Exercise 4: Independent Microscopy Projects; Project proposal Lab; How to collect useful data
6	Feb. 20	Exercise 4: Independent Microscopy Projects; Distribution of Microscopic flora and fauna; data collection lab
7	Feb. 27	Exercise 6: Protein extraction from biological tissues and determination of total protein, Spectrophotometry and standard curves
7	March 6	Exercise 7: Enzymology Lab: Basics of α-Amylase Activity
8	March 20	Spring Break
9	March 27	Exercise 8: Enzyme Regulation: “Investigation of the effect of temperature and pH on enzyme activity”
10	April 3	Exercise 9: Photosynthesis
11	April 10	Exercise 11: Isolation of plasmid DNA from <i>E. coli</i> and restriction with MspA11:
12	April 17	Exercise 12: PCR-based VNTR Human DNA typing or GMOs in food
13	April 24	Exercise 14: Transformation of the pGLO plasmid into bacteria
14	May 1	Analyze transformation experiment Exercise 10: Mitosis and Meiosis