

BIOL 1050 LAB - SPRING 2018

SECTION 010 – THU 6PM-8:50PM

Instructor: Dr. Kamal Dulai

Email: kdulai@csustan.edu (include BIOL 1050 in subject line)

Office: N251 **Office Hours:** T R 4:55 pm – 5:55 pm

CHECK YOUR CSUSTAN EMAIL EVERY DAY.

Required Materials: 1. Symbiosis Lab Manual (at the campus bookstore; photocopies not allowed)
 2. A traditional calculator

Blackboard: www.csustan.edu/blackboard BIOL 1050 lab section (automatic enrollment)

Lab Safety Quiz: on Blackboard, titled “BioLabSafety” (automatic enrollment) - Perfect score required by week 2, or you will be dropped from the entire course.

Grading

Assignment	Points
Quizzes (10 x 10 points)	100
Lab Report 1: Photosynthesis	50
Lab Report 2: Nematode Worm Gene Amplification	50
Lab Final Exam	50
TOTAL POINTS	250

Lab Reports

Laboratory scientists keep lab notebooks, in which they carefully describe every experiment (hypotheses, methods, results, conclusions). Scientists must be confident that research results are replicable, by themselves or by other scientists as a part of the peer review process. Therefore, these notebooks are incredibly valuable, because they document the steps of the scientific method and stand as a record of research. There will be several laboratory exercises that we will be performing this semester that are appropriate for reporting in this style.

You will be performing these lab exercises with a partner or as a group, but both lab reports will be written **independently**. You can share data and discuss concepts and results with your classmates, but **the lab report must be written in your own words**. You will submit an electronic copy of your lab reports through Blackboard Assignments, in MS Word or PDF format. GoogleDocs are acceptable if the format is in MS Word. Your instructor has access to software programs that detect plagiarism, **so it is critical that you produce a lab report that is written completely in your own words** (even the methods section must be written in your own words, not copied from the lab manual). **Plagiarism will earn a zero grade. Two instances of plagiarism will earn an F grade in the course.**

Lab reports are due at the beginning of lab section on the dates indicated. Late submissions are penalized 20 points per day. The expectations regarding each lab report will be discussed in that class meeting, and explicit instructions will be provided through email.

One of the goals of this course is to equip you with the fundamental skill of scientific report writing.

Quizzes

There will be a quiz every week (11 total, check your schedule). This quiz will cover material we covered in the previous meetings, but mostly test your basic understanding of the material we will cover that day (so read the **introduction section** in the lab manual for that day's lab exercise!). Your lowest quiz grade will be dropped.

Absences

Attendance is required. Do not enroll in this class if you have conflicts or other commitments during your lab period. I will take attendance and mark any absences. Every absence will result in one or more zero grades. See below.

Excused absences:

1. illness documented by a physician (personal illness or a child's illness, or emergencies due to pregnancy)
2. documented jury duty or military duty
3. CSU Stanislaus athletics games (documented by coach; doesn't include team practice)

If you miss a lab, you cannot make it up, and you cannot earn any credit for writing up that lab activity. There are no exceptions to this rule, but in the case of excused absences a grade adjustment is possible so you are not penalized. Missed quizzes **can** be made up if the absence is excused but you must e-mail me that week regarding a make-up quiz. If I don't hear from you promptly, you get a zero grade. During the first few minutes of each class period we will discuss the day's activities and take the quiz, so tardiness will hurt your grade.

Personal Conduct

Most labs will run the full three hours. Develop a cordial working relationship with your lab group, and **always** do your share of the work. The laboratory is a place for work. Remain focused on your lab activity for the entire period. Practice lab safety always. Clean up after yourself.

Cell phone use as a timer or calculator is acceptable; **texting or checking email is not acceptable. It is rude.** I will dock you 10 points if I observe this behavior. Computers are only allowed in class as a tool for class exercises.

Flexibility Clause

Circumstances may arise during the course that may prevent the instructor from fulfilling every component of this syllabus; therefore, the syllabus may be subject to minor adjustments. Students will be notified prior to any changes, if possible.

Welcome & Great Learning!

Biol 1050 Lab schedule for Spring 2018

Week	Lab	Quiz
1/22	No Lab This Week	
1/29	Attendance this week is mandatory for a place in the class. Lab safety, neurophysiology of learning, study skills, time management	
2/5	Lab 1 Scientific Investigation (pg 5 in lab manual)	
2/12	Lab 2 Microscopes and Cells (pg 33 in lab manual)	Quiz 1
2/19	Lab 3 Bioinformatics, introduction to nematode worm biology (pg 141 in lab manual) BRING YOUR LAPTOP OR TABLET FOR AN IN-CLASS EXERCISE Practice pipetting	Quiz 2
2/26	Lab 4 DNA extraction, PCR (pg 153 in lab manual)	Quiz 3
3/5	Lab 5 Mitosis and Meiosis (pg 119 and 125 in lab manual)	Quiz 4
3/12	Lab 6 Solving genetics problems (pg 131, 137, 139, 157 in lab manual) Gel electrophoresis (pg 157 in lab manual)	Quiz 5
3/19	Lab 7 Enzymatic Activity (pg 85 in lab manual) Set up seed germination lab	Quiz 6
3/26	Lab 8 Photosynthesis (pg 109 in lab manual) Collect and analyze data from seed germination	Quiz 7
4/2	Spring Break No Labs	
4/9	Lab 9 Respiration/Fermentation (pg 113 in lab manual)	Quiz 8
4/16	Lab 10 Natural Selection Predator-Prey (pg 187 in lab manual)	Quiz 9
4/23	Lab 11: Population Genetics and Evolution (pg 159 in lab manual)	Quiz 10
4/30	Lab 12: Diffusion and Osmosis (pg 57 in lab manual)	Quiz 11
5/7	Comprehensive Lab Practical Exam	
5/14	NO LAB SECTIONS MEET THIS WEEK	