

BIOL 1050 GENERAL BIOLOGY LAB SPRING 2017

Dr. Jennifer Cooper
Office hours: M 11am-1pm
Th 2pm-3pm

Office: Naraghi 256
E-mail: jcooper3@csustan.edu
Write BIOL 1050 in the subject line!
Check your Stan State 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)

Week of	Lab
1/23	ALL LAB SECTIONS DO NOT MEET THIS WEEK
1/30	Attendance this week is mandatory for a place in the class. Lab safety, neurophysiology of learning, study skills, time management
2/6	Lab 1 Scientific Investigation
2/13	Lab 2 Microscopes and Cells Quiz 1
2/20	Lab 3 Diffusion and Osmosis Set up seed germination lab Quiz 2
2/27	Lab 4 Enzymatic Activity Collect and analyze data from seed germination Quiz 3
3/6	Lab 5 Mitosis and Meiosis Quiz 4
3/13	Lab 6 Solving genetics problems Quiz 5
3/20	SPRING BREAK NO LABS THIS WEEK
3/27	Lab 7 Photosynthesis Quiz 6
4/3	Lab 8 Respiration/Fermentation Quiz 7
4/10	Lab Report 1 due (Photosynthesis) Lab 9 Bioinformatics, introduction to nematode worm biology BRING YOUR LAPTOP OR TABLET FOR AN IN-CLASS EXERCISE Practice pipetting Quiz 8
4/17	Lab 10 DNA extraction, PCR Quiz 9
4/24	Lab 11 Natural Selection Predator-Prey Gel electrophoresis Quiz 10
5/1	Lab 12: Population Genetics and Evolution Quiz 11
5/8	Lab Report 2 due (Nematode Worm Gene Amplification) Comprehensive Lab Practical Exam
5/15	ALL LAB SECTIONS DO NOT MEET THIS WEEK

Grading	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 4 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 all three lab reports will be written **independently**. You are allowed to 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 email, in MS Word format. GoogleDocs are acceptable as long as 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 10 points per day. The expectations regarding each lab report will be discussed in that class meeting, and explicit instructions will be provided through email.

Quizzes

There will be a quiz every week (11 total, check your schedule). This quiz will cover material we covered in the previous meetings, and will 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 at all times. 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.