

**GENERAL BIOLOGY I LAB
BIOLOGY 1050-004 & 012
FALL 2017**

Instructor: Sandra Lehmann Vierra, MPH

E-mail: slehmannvierra@csustan.edu (Include BIOL-1050 + sec. # on subject line of all emails.)

Phone: 209-667-3838 (prefer email)

Blackboard for lab safety and lab in your portal

FB: <https://www.facebook.com/groups/CSUStanislausGenBiolSandraVierra/>

Office Hours: Room N252, M 9am-9:50am & T 11:30am-12:20pm, F 2pm-2:50pm, or by appt.

Note: Students are responsible for reading and knowing the information within this syllabus. The instructor reserves the right to make changes to the syllabus, points, and grading scale as necessary.

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- 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)

<u>GRADING</u>	<u>Points</u>
Quizzes (10 x 10 points...lowest quiz score dropped)	100
Lab Report 1: Nematode Worm Gene Amplification	50
Lab Report 2: Natural Selection Predator-Prey	50
Lab Final Exam	50
TOTAL POINTS	250

LAB REPORTS

Laboratory scientists keep lab notebooks, in which they carefully describe every experiment — hypotheses, predictions, methods, results, and 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. We will perform two experiments (lab exercises) this semester that are appropriate for reporting in this style.

You will perform 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 Jupiter, in MLA format and saved as a pdf. GoogleDocs are acceptable as long as the document is saved as a pdf. I have 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 and not copied from the lab manual). **Plagiarism will earn a zero grade. Two instances of plagiarism will earn an F grade for the entire course.**

Lab reports are due at the beginning of your lab section, in the week 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 lab, and will test your basic understanding of that material. It can also contain a question or two about the current lab, 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. **I have indicated in boldface type the weeks where missing the lab activity would be especially ill-advised.** 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 time and place for understanding material; don't waste time with the idea of understanding it later. 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. As well, computers are only allowed in class as a tool for class exercises

GENERAL BIOLOGY I LAB SCHEDULE

Week	Lab	Quiz
8/21	ALL LAB SECTIONS DO NOT MEET THIS WEEK	
8/28	Attendance this week is mandatory for a place in the class. Lab safety, neurophysiology of learning, study skills, time management Lab 1 Scientific Investigation (p.5 - lab manual)	
9/4	Lab 2 Microscopes and Cells (p.33 - lab manual)	Quiz 1
9/11	Lab 3 Mitosis and Meiosis (p.119 & 125 - lab manual)	Quiz 2
9/18	Lab 4 Bioinformatics, Intro. to Nematode Worm Biology (p.141 - lab manual) BRING YOUR LAPTOP OR TABLET FOR AN IN-CLASS EXERCISE Practice pipetting	Quiz 3
9/25	Lab 5 DNA Extraction, PCR (p.153 - lab manual)	Quiz 4
10/2	Lab 6 Solving genetics problems (p.131, 137, 139, 157 - lab manual) Gel electrophoresis (p.157 - lab manual)	Quiz 5
10/9	Lab 7 Diffusion and Osmosis (p.57 - lab manual) NON-INSTRUCTIONAL DAY 10/11 – WEDNESDAY LABS DO NOT MEET THIS WEEK	Quiz 6
10/16	Lab 8 Enzymatic Activity (p.85 - lab manual) Set up seed germination lab	Quiz 7
10/23	Lab 9 Photosynthesis (p.109 - lab manual) Collect and analyze data from seed germination Lab Report 1 due in lab (Nematode Worm Gene Amplification)	Quiz 8
10/30	Lab 10 Respiration/Fermentation (p.113 - lab manual)	Quiz 9
11/6	VETERAN'S DAY observed 11/10 – ONLY WEDNESDAY LABS MEET THIS WEEK	
11/13	Lab 11 Natural Selection Predator-Prey (p.187 - lab manual)	Quiz 10
11/20	THANKSGIVING HOLIDAY – ALL LAB SECTIONS DO NOT MEET THIS WEEK	
11/27	Lab 12 Population Genetics and Evolution (p.159 - lab manual)	Quiz 11
12/4	Lab Report 2 due in lab (Natural Selection Predator-Prey) Comprehensive Lab Practical Exam	
12/11	ALL LAB SECTIONS DO NOT MEET THIS WEEK	