

## BIOL 1050 GENERAL BIOLOGY LAB FALL 2016

Dr. Jennifer Cooper

Office hours: Tuesday 12:15 - 1:15

Thursday 12:15 - 1:15

Friday 11:15 – 12:15

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

**Lab Safety Quiz:** on Blackboard, titled "BioLabSafety" (automatic enrollment)

A perfect score required by your lab period the week of 9/5, or you will be dropped from the entire course.

Week of	Lab
8/22	<b>ALL LAB SECTIONS DO NOT MEET THIS WEEK</b>
8/29	<b>Attendance this week is mandatory for a place in the class.</b> Neurophysiology of learning, study skills, time management Lab 1 Scientific Investigation
9/5	Lab 2 Microscopes and Cells <span style="float: right;">Quiz 1</span>
9/12	Lab 3 Diffusion and Osmosis Set up seed germination lab <span style="float: right;">Quiz 2</span>
9/19	Lab 4 Enzymatic Activity Collect and analyze data from seed germination <span style="float: right;">Quiz 3</span>
9/26	Lab 5 Photosynthesis <span style="float: right;">Quiz 4</span>
10/3	Lab 6 Respiration/Fermentation <span style="float: right;">Quiz 5</span>
10/10	<b>ONLY MONDAY SECTIONS MEET THIS WEEK</b>
10/17	Lab 7 Mitosis and Meiosis Lab Report 1 due (Photosynthesis) <span style="float: right;">Quiz 6</span>
10/24	Lab 8 Solving genetics problems <span style="float: right;">Quiz 7</span>
10/31	Lab 9 Bioinformatics, introduction to nematode worm biology <b>BRING YOUR LAPTOP OR TABLET FOR AN IN-CLASS EXERCISE</b> Practice pipetting <span style="float: right;">Quiz 8</span> Lab Report 2 due (Respiration)
11/7	Lab 10 DNA extraction, PCR <span style="float: right;">Quiz 9</span>
11/14	Lab 11 Natural Selection Predator-Prey Gel electrophoresis <span style="float: right;">Quiz 10</span>
11/21	<b>ALL LAB SECTIONS DO NOT MEET THIS WEEK</b>
11/28	Lab 12: Population Genetics and Evolution <span style="float: right;">Quiz 11</span> Lab Report 3 due (Predator-Prey)
12/5	Comprehensive Lab Practical Exam Lab Report 4 due (Nematode Worm Gene Amplification)
12/12	<b>ALL LAB SECTIONS DO NOT MEET THIS WEEK</b>

## Grading

<b>Assignment</b>	<b>Points</b>
Quizzes (10 x 10 points)	100
Lab Report 1: Photosynthesis (with lab group)	30
Lab Report 2: Cellular Respiration (with lab group)	30
Lab Report 3: Natural Selection Predator Prey (with lab group)	30
Lab Report 4: Nematode Worm Gene Amplification (independent)	60
Lab Final Exam	50
<b>TOTAL POINTS</b>	<b>300</b>

## 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. Three out of the four lab reports will be written jointly (as a single document) with your lab group. To document that each person has contributed their share, you must perform all of your work in BlackBoard, using a link that will be provided by your instructor. This link will give you access to a space where you and your lab group can work privately, using a “wiki” tool to write and edit your lab reports. The final lab report will be written independently, and need not be documented on BB.

Lab reports are due at the beginning of lab section on those dates. Late submissions are penalized 10 points per day. Your instructor has access to software programs that detect plagiarism, so it is critical that you and your lab group 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 for all group members. Two instances of plagiarism will earn an F grade in the course.

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.

### **Student 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, not for play. Remain focused on your lab activity for the entire period. Practice lab safety at all times. Clean up after yourself.

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.

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 childish behavior.

Computers are only allowed in class as a tool for class exercises.