

## Biology 20L: Introduction to Experimental Biology

**Instructor:** Linda Ogren

Office hours: Mondays and Wednesdays 10:30-11:30 am in 307 Thimann beginning on 7/29

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**Class web site:** All course materials are posted on eCommons: <http://ecommons.ucsc.edu>. You must be formally enrolled in the course to access the site.

### Schedule

Date	Lab Work and Assignments*
M 7/27	Course introduction and basic calculations Lab Work: Exercise 1 – Basic Skills
W 7/29	Discussion: Antibiotic resistance experiment Discussion: Protein assay experiment Lab Work: Exercise 2 – Antibiotic Resistance (set up plates) <b>DUE:</b> Data set for Exercise 1
M 8/3	Discussion: Protein assay data analysis Lab Work: Exercise 2 – Antibiotic Resistance (count colonies) Lab Work: Exercise 3 – Protein Assays
W 8/5	Discussion: Cloning experiment overview Lab Work: Exercise 4 – Cloning (digest #1, gel #1, ligation) <b>DUE:</b> Report for Exercise 2
M 8/10	Discussion: Cloning experiment: selection and screening, gel analysis Discussion: Nutrient availability experiment Lab Work: Exercise 4 – Cloning (transformation) Lab Work: Exercise 6 – Nutrient Availability (set up cultures) <b>DUE:</b> Data set for Exercise 3 <b>DUE:</b> Homework assignment
W 8/12	Discussion: Cloning experiment: miniprep and restriction digest protocol Lab Work: Exercise 4 – Cloning (amplification) Lab Work: Exercise 6 – Nutrient Availability (analyze cultures)
M 8/17	Lab Work: Exercise 4 – Cloning (miniprep, digest #2, gel #2) <b>DUE:</b> Report for Exercise 6
W 8/19	TBA
M 8/24	Lab Work: Exercise 7 – Histology <b>DUE:</b> In class assignment <b>DUE:</b> Data set for Exercise 4
W 8/26	Final Exam

\* Assignments are due and will be collected at the beginning of the class period.

**Grading:** Grades will be based on written assignments, quizzes, and participation as shown below. Attendance at all class meetings is required unless you are ill or have a serious emergency. To be excused from class, you have to contact the instructor within 24 hours of the missed class and provide documentation that supports your absence (e.g., doctor's note, family member's death certificate, police report). Unexcused absences will result in loss of 10% of the total points in the class for each missed meeting. Keep all of your graded work until you receive your final course grade.

Reports, data sets and other assignments = 75% of final course grade. Reports are worth 30 points each; data sets are 20 points each; other assignments are 5 points each.

Exam = 25% of final course grade

Participation = Up to 10% of the total points in the course will be deducted at the end of the course if you are obviously not prepared to do the day's work when you arrive in lab or if you are habitually late to class. Examples of poor preparation are failure to perform (or attempt) the calculations suggested in the lab manual and failure to plan out the day's activities before lab begins.

Grade assignment: A = 86-100%; B = 75-85%; C = 60-74%; D = 55-59%; F < 55% (Plus and minus qualifiers will be added to the highest and lowest scores within each range, respectively.)

**Turnitin.com:** Every data set and report you turn in must also be submitted electronically to turnitin.com, a web site that screens papers for plagiarism. You will not receive credit for a paper, nor will the graded paper will be returned to you, until it has been submitted to turnitin.com. All work must be submitted to turnitin.com by 11:59 pm on W 8/26. Instructions for submitting papers will be provided.

**Late Assignments:** Late assignments will be accepted as long as they are turned in within one week of the due date, except as noted below. For example, papers due on Monday of week 3 must be turned in no later than the beginning of class on Monday of week 4. The last time any work for the class will be accepted will be at the final exam. Late papers will be penalized 10% of their total point value for each day they are late, including weekends; a day will be considered to end at 11:59 pm when late penalties are calculated. If you turn in work on the day it is due but after it has been collected in class, the late penalty will be 5%. Extensions will be granted only for documented illness or serious emergency; they will not be granted for printer problems or because you have too many other time commitments. To turn in a late paper, please e-mail the complete paper to the instructor as soon as you are done with it and then ALSO give the instructor a printed copy of the paper on the next business day. You will receive credit for turning in the work on the day it was e-mailed, but the instructor will not print the paper in order to grade it, so you must provide the hard copy. The hard copy must be completely identical to the one you e-mailed. Changing anything in the paper after you e-mail it will constitute a violation of academic integrity, and you will receive a grade of zero for the work.

**Academic Integrity:** All assignments you submit must be *entirely* your own work. You and your lab partner are not allowed to submit copies of the same graphs and tables even though you collected the same data, and you are not allowed to collaborate with anyone except the instructor when writing your papers. This means you and your lab partner and friends may not discuss papers as you are working on them, and you may not use a current or former student's work in any way whatsoever when writing your papers. Peer editing and parental assistance are not allowed, just as they are not allowed when you take exams. You may not ask anyone to look over your work to identify errors and help you fix them, even if the errors are just typos or grammatical mistakes. One of the goals of this class is to teach you rely on your own judgment and become wholly responsible for your work. When you have questions, ask the instructor. You may not fabricate data under any circumstances, and you may not use anyone else's data without prior approval from the instructor. Sources of information must be cited. Everything you turn in must be stated in your own words even if you cite the source. Changing just one or two words in a sentence from a book or internet site is not saying it in your own words; that constitutes plagiarism. Also note that you will not receive credit for ideas that are quoted directly from any source, even if you place the passage in quotation marks and cite the source (although you wouldn't be committing plagiarism). If you are not able to state a concept in your own words, you probably don't understand it. If you break any of these rules, or violate the University's academic integrity policy in any other way, you will be subject to disciplinary action by your college provost; if you are enrolled at another university during the regular academic year, your home institution will be notified. In addition you will receive a grade of zero for the assignment, and you may be given a grade of F for the entire course, depending on the seriousness of the infraction. These penalties will apply even if you say you did not understand the rules, so be sure to ask if you have questions. The University's academic integrity policy is outlined on pages 45-48 of the *Student Policies and Regulations Handbook* at <http://deanofstudents.ucsc.edu/pdf/student-handbook.pdf>; a link to this site is on eCommons. Also note that if you allow another student to copy your work or help another student write his/her paper, you will also be violating the University's academic integrity policy and will be subject to disciplinary action. This policy will be in effect during your entire tenure at UCSC even if you are no longer enrolled in this course.