BIMM 101 Recombinant DNA Techniques Fall 2010

Dr. Stephanie Mel Office hours: Monday 10 – 11 AM

York 4070E or by appointment

smel@ucsd.edu

Lectures: Tuesday/Thursday 8 – 9:20 AM HSS 1330

Labs: Tuesday and Thursday 9:30 AM – 1:30 PM York 4318 and 4332 Wednesday and Friday 9AM to 1:00 PM York 4318 and 4332

Additional Lab: Wednesday/Friday 12 – 4 PM York Hall 4418

Dr. Cindy Gustafson Brown

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TAs: Jenn Tsau jstsau@ucsd.edu Michael Pham m4pham@ucsd.edu

Anthony Daulo adaulo@ucsd.edu

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Learning objectives:

 Learn the theory behind molecular techniques, and the applications of the methodologies in biological research

• Become proficient at basic molecular biology techniques

- Learn the importance of proper controls in designing experiments and interpreting results
- Improve lab math skills and ability to graph data correctly
- Learn to make logical conclusions from experimental data
- Become familiar with bioinformatics websites
- Learn to find, read, and evaluate primary literature
- Become aware of the implications of the technology for society

Texts:

BIMM 101 Lab Manual from University Readers - REQUIRED

From Genes to Genomes by Dale (1st or 2^{cd} edition) on reserve at BML and electronic version available from UCSD computer

http://onlinelibrary.wiley.com/book/10.1002/0470856912

Readings on WebCT (webct.ucsd.edu)

Required Materials - needed by second day of class:

Labcoat (the bookstore has cheap ones)

UV blocking safety glasses (also at bookstore)

Lab notebook with carbon copies (bookstore or Grove general store)

Remember that lab attendance is required – if you miss two labs, you will be asked to drop the course. If you are ill, you must leave a message with your instructor, not your TA, and make up the lab in a way that we will determine. You must be on time for lab; the TAs go over the experiments at the beginning of lab, and also quizzes are administered then.

Grading will be based on the following:

- **1. Quizzes:** Once a week on Thursday or Friday beginning on Thursday Sept. 30/Friday October 1, there will be a quiz on the lab material from the previous week. Also, questions on the general purpose of that day's lab may also be asked. There will be a total of 6 quizzes, each worth 4% or your grade. Total quizzes will be worth 28% of final grade. If you come into lab late and miss the quiz, you will receive a ZERO for that quiz.
- **2. Homeworks:** there will be 3 short homework assignments due throughout the quarter (worth 6% of final grade each). Total homeworks are worth 18% of your grade.
- **3.** Lab report: there will be 1 lab report required during the quarter worth 20% of the final grade. Although you will be doing the experiments and collecting data with a partner, you must hand in your own lab report, in your own words. **Copying someone else's lab report or homework is cheating (see below). You must submit your lab report to Turnitin.com**

Note that in presenting data, much of your homework and lab grade will depend on correct labeling of figures and graphing of data.

Late policy: lab reports are due at the beginning of the lab on the assigned date. For each day thereafter, you will lose 10% off the total.

- **4. Exams:** there will be 2 exams given in LECTURE, one on October 26 (18% of final grade) and one on Dec. 2 (20% of final grade).
- **5. Lab notebook:** it is mandatory that you keep a lab notebook, with carbon paper. The notebook must contain the following (see back of lab manual for more details): You will need to attach carbons of relevant labs to all homeworks and lab reports you hand in (I will indicate on lab reports which lab #s to include). The carbons will be part of the lab report and homework grades.
- 6. Lab performance- You can lose points if you are not a good lab citizen. When assigning the final grade, your effort, attitude, and the quality and success of your experiments, as well as the completeness of your lab notebook will be considered. This could make a difference if you are on the borderline between 2 grades. The carbons you hand in with lab reports and homeworks will be graded as part of those assignments.
- **7.** Lab attendance is required –If you miss one lab with no excuse, you will lose 5% from your final grade. If you miss 2 labs you will receive an F for the course. If you are ill, you must leave a message with me, not your TA, and make up the lab in a way that I will determine. You must be on time for lab; the TAs go over the experiments at the beginning of lab, and also guizzes are administered then.

Note: Just coming to lab does not ensure that you will get a passing grade in the class. You must hand in all assignments and get passing score on those assignments (an average of 65%) to get a C- in the class.

Policy on cheating: anyone caught cheating (includes plagiarizing lab reports, cheating on a test, or changing an answer for a regrade) will be reported to the Academic Integrity Office.