BIMM 101, Recombinant DNA Techniques, Spring 2015

Instructor: Dr. Gabriela Ring, gring@ucsd.edu

Office hours: Check calendar on TED for weekly office hour, or make an appointment.

Office Location: The Humanities and Social Sciences building (H&SS) 1145LB (http://act.ucsd.edu/maps/).

Lecture: M, W, F 8:00 AM – 8:50 AM MANDE B-150
Lab: W, F 9:00 AM - 1:00 PM York 4318 and 4332

Teacher Assistants:
B01 (York 4318), Scholl, Amanda Gabrielle, ascholl@ucsd.edu
B02 (York 4332), Ornelas, Lilia, liornela@ucsd.edu

Learning goals (please see detailed document on TED, https://ted.ucsd.edu/):
- 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 databases and applications
- Learn to find, read, and evaluate primary literature
- Become aware of the implications of the technology for society

Required reading:
1. BIMM 101 Lab Manual from University Readers
2. *From Genes to Genomes* by Dale (1st, 2nd, or 3rd edition) electronic versions of 3rd and 1st edition available on Roger
3. Readings on TED: Additional readings will be posted there.
4. Course website on TED: syllabus, announcements, lectures, study guides, calendar, assignments, etc. Check regularly!

Required Materials (needed by the first lab, bring to lab each day):
1. Lab Manual
2. Labcoat – must be to the knees
3. UV blocking safety glasses (also at bookstore)
4. Lab notebook with carbon copies (bookstore or Grove general store)
5. Fine point Sharpie for labeling – get a dark color
6. Calculator – you cannot use a cell phone in lab!
7. Long pants and close-toed shoes are required in lab at all times – no skin on feet or legs should be showing
8. No eating and drinking in the lab

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 me, 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 given then. If you are habitually late to lab, you will lose 5% from your final grade.

I highly recommend that you attend lectures. From my past experience I have seen that students attendance and participation in lectures has an enormous impact on their success in the course.

Grading:

The total points for the course is 500. Grades will be based on your total points as a percentage of 500. The cutoffs are strictly adhered to.

97+ = A+	80 up to 83 = B-
93 up to 97 = A	76 up to 79 = C+
90 up to 93 = A-	72 up to 75 = C
87 up to 90 = B+	67 up to 71= C-
83 up to 87 = B	60 up to 66= D
	Below 60 = F

1. Quizzes: 30%

There will be 6 quizzes (5% each quiz) on Wednesdays on the following dates:

April 8, 15, 22, 29
May 13, 27

The quizzes will cover the lectures, readings, and lab experiments from the previous week, and the purpose of that day's lab. Note that the last quiz will cover material from two weeks instead of one week. I will post a study guide for each quiz on TED. You may only request a re-grade of your quiz if you completed it in pen.

Note: If you come into lab late and miss the quiz, you will receive a zero for that quiz. There are no make-ups for quizzes.

2. Midterm: 10%

Will take place on May 6

3. Assignments/home-works: 27%

There will be various assignments and home-works varying in worth and format that will make up 27% of the final grade. Guidelines for each of the submissions will be posted on TED and due dates will be on the TED calendar. Assignments and home-works must be submitted within 10 minutes of the start of your lab at the due date. Any home-works /assignments that are submitted in late that day will be penalized by deducting 5% of the total grade; for each additional day a report is late, another 5% will be deducted.

Although you will be doing the experiments and collecting data with a partner, you must hand in your own home-works/assignments, written in your own words. **Copying from someone else is cheating (see below). This also means copying from past quarters!**

4. Final: 30%
There will be a comprehensive exam on the last day of class, Friday June 5, during the lab period. There are no make-ups for the final exam. The final exam has to be completed in pen.

5. Participation, performance and experimental success: 3%
Your participation in class and lab, your preparedness for lab, and the quality and success of your experiments will be all considered when assigning this portion of the grade.
Absences: If you miss one lab with no excuse, you will lose 5% from your final grade. If you miss two labs, you will receive an F for the course.

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 scores on those assignments (an average of 67) 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 re-grade) will be reported to the Academic Integrity Office.

Lab notebook (see pages 156-157 in lab manual):
It is mandatory that you keep a lab notebook, which your TA's will check at the end of every lab for completeness. It should contain the following:

- Date, title, names
- Purpose: objective of the lab in your own words
- Methods: pages of protocol/procedure and any changes you made to it, relevant charts, tables
- Results: all calculations and data you collect, including pictures of gels well labeled
- Conclusions: summarize and interpret results

Letters of recommendation:
Letters of recommendation will be written for students who have been active participants in the course, receive high grades, have good academic records and realistic goals (I need to know who you are because you have come to office hours, or you have asked/answered questions in class, or talked to me in lab, etc.). If I think I don't know you that well or don't have too much to say about you, don't take it personally but I will probably decline your request to write a letter. If you think you may want a letter of recommendation at some point in the future, save your graded quizzes and assignments.