

## **BIMM 101      Recombinant DNA Techniques      Fall 2014**

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Office hours: Wednesdays at 11 AM  
York 3080 D

Lecture: Tues-Thurs 12:30-1:50 PM

Lab      Tues-Thurs 2:30–6:30 PM      York 4318 and 4332

### **Learning goals and outcomes – please also see detailed document on Ted**

#### **Learning goals:**

- 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 texts:**

1. BIMM 101 Lab Manual from University Readers
2. *From Genes to Genomes* by Dale (1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup> edition)  
electronic version of 3<sup>rd</sup> and 1<sup>st</sup> edition available on Roger
3. Readings on TED

#### **Required Materials – needed by second day of class:**

Labcoat – must be to knees

UV blocking safety glasses (also at bookstore)

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

Fine point Sharpie for labeling – get a dark color

Calculator – you cannot use a cell phone in lab!

iClicker

Long pants and close-toed shoes are required in lab at all times – no skin on feet or legs should be showing

**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:**

**1. Quizzes: 40%** Starting on Oct.9, there will be a quiz once a week on Thursday at the beginning of lab each week for week 2, 3, 4, 5, and then on Tuesday for weeks 7, 8, and 9 (see calendar on TED). The quiz in week 5 will be worth 10%; all other quizzes are worth 5%. The quizzes will cover the lectures, readings, and lab experiments from

the previous week, and the purpose of that day's lab. I will post a study guide for each quiz on TED.

**Note:** If you come into lab late and miss the quiz, you will receive a zero for that quiz.

**2. Assignments: 25%** There will be both carbon submissions and home-works varying in worth and format that will make up 25% of the final grade. Guidelines for each of the submissions will be posted on TED and due dates will be on the TED calendar. The home-works must be submitted to Turnitin on TED and must be handed within 10 minutes of the start of you lab. Any homework's that are handed in late that day will be penalized by deducting 5% of the total grade; for each additional day a report is late, it will another 5% will be deducted.

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

**3. Exams 30%:** There will be a comprehensive exam on the last day of class, Dec.11, during the lab period.

**4. iClicker 5%:** You must be in lecture and answer the clicker questions 50% of the time to get full credit (see clicker notes below).

**4. Lab performance and experimental success:** Your preparedness for lab, your participation in class, and the quality and success of your experiments will be all be considered when assigning your final grade. This will be especially important if you are on the borderline between grades.

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.

#### **Final grade:**

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

**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.

**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.

**Letters of recommendation:** Letters of recommendation will only be written for students who receive an A or an A+, have good academic records and realistic goals,

and who have been active participants in the in the course (this means that I need to know who you are because you have come to office hours, or that you have asked and answered questions in class, 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, please save your graded home-works.

## **Clickers in BIMM101**

Getting clicker points towards your grade is very simple – show up to class, watch for the clicker questions, read them, and click in with your answer. All clicker points are for participation only and are not graded.

### **Q. What kind of clicker should I buy and where can I get it.**

The i-Clicker, preferably version 2, although the regular i-Clicker works too. You can get one at the UCSD bookstore. I-Clicker 1 has had issues with “remembering” class settings even within the course of a lecture.

### **Q. Can I share a clicker with another student?**

**NO!**

### **Q. Where and when should I register my clicker?**

Register it on class Ted site. Look for the link in the Tools folder and complete the registration by Tues Oct. 7th.

### **Q. When do the scored clicker questions start?**

On Tuesday Oct. 7<sup>th</sup> in lecture.

### **Q. What are the max points possible?**

26 = 5% of your grade.

### **Q. How many days will we have clicker questions?**

Probably 16

### **Q. How many days will I have to be present to qualify for the full 26 points?**

13 (so you get 3 days when you can be absent and not lose out)

### **Q. How many points is each day worth?**

2 points = 2 x 13 for a maximum of 26 participation points

### **Q. How do I get the full 2 points each day?**

Typically there will be two to three clicker questions a day – so you have to answer at least half of them.

### **Q. Is there partial credit for days when I click in to less than half of the questions?**

No, on days when you are absent or present and don't click in, or present and click in to less than half of the questions, you get no points. It pays to click in. This is also why we have the 3 "permitted" absence days – so you don't have to ask me for credit.

**Q. If my battery fails, or I forget my clicker, but I do attend the class, do I get clicker points for that day?**

No, see answer to question above. This would fall under the 3 "permitted" absence days – so we don't have to negotiate credit and you can still get all 26 points from the remaining days attended.

**Q. If I attend less than 13 lectures, will I get any points?**

Yes, you can still get 2 points each day if you answer half of the questions that day.

**Q. What is my best strategy for getting all the points?**

Show up for as many lectures as possible, stay awake, and PARTICIPATE!

**Q. Do clicker questions really help?**

Research shows that ANYTHING that allows you to check or test your knowledge or understanding in REAL time helps with performance in a course. And Clickers are a quick, painless and anonymous way of staying on top of what you do know and what you don't know.