

Syllabus – BIMM100 Fall Quarter 2009

Welcome to Molecular Biology! The goal of this course is for you to gain an understanding of biology from a much broader perspective than you may have received from previous courses. We will cover the core processes of a cell, that of DNA replication, transcription and translation, in addition to equally important topics including molecular biology lab techniques, the organization of the genome, and viruses. Most importantly, I hope this class will give you a new outlook on studying biology. You may be accustomed to classes which reward you for memorizing the proteins in a complex or the intermediates in a pathway, but I will be focusing more on understanding the mechanism of a process and how each specific process affects the cell as a whole.

My name is Brian Sato and I am a Faculty Fellow. I earned my Ph.D. from my thesis work in the Hampton lab studying protein quality control in the endoplasmic reticulum. Currently, I'm conducting research in the Wilhelm lab concerning the mechanism of mRNA localization and regulation in fly development. Feel free to email me **anytime** with questions at **bsato@ucsd.edu**.

Office Hours – 3124B Pacific Hall

Tuesday 10:00-11:00 am

Thursday 3:00-4:00 pm

If you cannot make these office hours, **please email me** and we will set up another time to meet.

Website

<http://www.biology.ucsd.edu/classes/bimm100.FA09>

Login: bimm100fa09 pw: Deject4 (case specific)

Please check the website often as I will use it to post class news, TA email addresses/sections/office hours, lecture slides, problem sets, and all other kinds of molecular biology goodness.

Requirements

Midterm 40% - Tuesday, October 27th, 8am-9:20am (location TBA)

Final 60% - Tuesday, December 8th, 8:00am-11:00am, will be cumulative
(location TBA)

Exams must be taken at the indicated times. If an emergency (a real emergency!) arises, you must let me know as early as possible before the actual exam. Please check your finals schedule now, having to study for too many finals at once is not an emergency. Also, students with learning disabilities recognized by the university, please let me know in advance so I can set up whatever you need.

Lecture

Lecture is twice a week, Tuesdays and Thursdays from 8am-9:20am. All the information you need for exams will be from lecture. While lecture is not mandatory, I highly encourage you to attend.

Discussion

Attendance at discussion sections is also highly encouraged although not mandatory. Sections will be an excellent place to review the week's material. Please sign up for section times in the lobby of Pacific Hall during the first week of class. Discussion sections will begin on Wednesday September 30th.

Problem Sets

Each week, problem sets will be posted by Friday evening. They are not required and will not be turned in for a grade, but the questions will be representative of what you will see on the exams. Answers will probably not be posted (to encourage people to attempt the problems rather than memorize the answers), but you can ask the TAs or me for help anytime on specific problems.

The Book

Molecular Cell Biology (6th edition) by Lodish et.al. Readings will be provided to supplement each lecture although readings are **not required**. I have 10 copies of the book placed on hold in the Biomedical library.

Tips for Success

1. Attend lecture
2. Do the problem sets (as they are released) – get help for questions you do not understand
3. Rewrite your lecture notes
4. Look over readings
5. ASK QUESTIONS – in class, after class, through email, in section, in office hours, etc....

Academic Honesty

All students are expected to follow UCSD's policy of academic integrity (for more info go to <http://www-senate.ucsd.edu/manual/appendices/app2.htm>). While it is acceptable and even encouraged for you to study with classmates, all exams are to be completed individually. Failure to comply with this policy will result in disciplinary action.

Class Schedule

9-24 (Th)	Central Dogma, Structure of Nucleic Acids
9-29 (Tu)	DNA replication
10-1 (Th)	DNA replication Part 2, DNA repair
10-6 (Tu)	Eukaryotic Gene Structure and Organization Part 1
10-8 (Th)	Eukaryotic Gene Structure and Organization Part 2
10-13 (Tu)	Molecular Biology Techniques Part 1
10-15 (Th)	Molecular Biology Techniques Part 2
10-20 (Tu)	Molecular Biology Techniques Part 3
10-22 (Th)	Cancer
10-27 (Tu)	Midterm (in class)
10-29 (Th)	Transcription Part 1
11-3 (Tu)	Transcription Part 2
11-5 (Th)	Transcription Regulation
11-10 (Tu)	mRNA processing, mRNA export
11-12 (Th)	Translation Part 1
11-17 (Tu)	Translation Part 2
11-19 (Th)	Review of DNA to protein, RNA world hypothesis
11-24 (Tu)	Viruses
11-26 (Th)	Thanksgiving holiday (NO CLASS)
12-1 (Tu)	Stem Cells
12-3 (Th)	AIDS
12-8 (Tu)	Final (8:00-11:00am)