

Syllabus for MCB 140: GENERAL GENETICS, FALL 2020

The following guides are a starting point, some of which may likely have to be tweaked during the semester.

All date and time listed below will apply to Berkeley. Please be mindful of your time zone differences and the DAYLIGHT SAVING 2020. The daylight-saving time will end on Sunday, November 1, 2020.

Communication

- We are excited to teach you genetics , and to take advantage of various tools for remote instruction. But we are learning too. We would appreciate real-time feedback from you to help us make the course the best it can be for all of you. Please don't hesitate to give us feedback, positive or negative!
- This is a scary and stressful time for everyone. In addition to adjusting to online learning, you may be caring for loved ones or perhaps have fallen ill yourself. Regardless of your circumstance, we know that this global pandemic has created a sense of anxiety and unrest in each of us. As such, the teaching staff will do everything we can to work with you to make these discussion sections as helpful as possible. Please do not hesitate to tell us about any stresses that you are facing.
- We recognize that you may be in a different time zone, without a stable internet connection, or in an environment that makes learning challenging. The teaching staff will bear all these things in mind and be as understanding as possible throughout this semester. If you tell us you're having trouble, we will not judge you or think less of you, and we hope that you'll extend us the same grace.
- If you need extra help, more time with something, or if you are having difficulty understanding key concepts, please reach out. The teaching staff is fully committed to ensuring you learn all you can from these discussion sections, we also want you to stay healthy, balanced, and grounded during this crisis.

Professors:

Douglas Koshland
Dan Rokhsar
Xavier Darzacq

GSI:

Qiming Yang
Adriana Mendizabal

Course organization

Synchronous learning:

- We will offer live lectures via zoom at the scheduled class time, from 11:10 A.M. and 12:00 P.M. Lectures will include interactive question and answer live and/or via chat, breakout rooms for topic discussions, and other interactive elements. Lectures will be recorded and made available via bCourses, but please note that part of your grade will be based on in-class participation.
- GSIs will act as monitors for the chats, answering the questions themselves or alerting the professor to elaborate on certain topics. We will also have live question and answer as needed.

Asynchronous learning:

- All live classrooms will be recorded for students who cannot attend. All lecture recordings will be posted on bCourses.
- Students who cannot attend live lectures will be asked to submit individual responses to questions that are posed to the breakout groups during live lectures as a substitute for the grade for class participation.

Interactive chats and questions outside of discussions:

- We will use the Piazza platform for you to ask questions to the GSIs and professors.

Discussions:

- During live discussions, we will offer supplementary material for the lectures. All students will have an opportunity to participate through Q&A, and will be guided through practice problems to solidify important concepts covered in lectures.
- All live discussions will be recorded and posted on bCourses.
- There will be no discussion sections the first week. Discussion sections will begin the week of Sept 2 (the first full week of classes).
- You have been assigned to a discussion section. If you want to change, you must get approval from the GSIs first.

Readings:

- Textbook: All three modules will use the third edition of the Genetics textbook by Peter J. Russell. It is free and available online (<https://drive.google.com/file/d/1QelU2OH0Fqj6XjdSv44zffIFoMextXir/view>) or as a PDF in the files folder.
- Assigned readings: This textbook does not cover all the material in the course. To address the missing content, lectures will also have additional assigned readings.
- Extra (non-required) readings: The extra (non-required) readings are listed. We hope they will excite and educate you.

Exams and Quizzes

Dates:

- Big Quiz Module 1: Sept 11.
- Midterm 1: Tuesday Sep 30, 2020
- Big Quiz 2 Module 2: TBD
- Midterm 2 : TBD
- Big Quiz 3: TBD
- Final: TBD

Format:

- The exams and Big quizzes will be posted as a PDF on the assigned date.
- You will have 24 hours to turn it back in.
- Exams and quizzes will be open book. However, we see a very strong correlation between poor performance on the assessments and students who are thumbing constantly through their notes during exams. Open book should only be used as a crutch for momentary lapses.
- Midterms are expected to take 2 hours to complete. Big quizzes 30 minutes. Final 3 hours.
- To take the exam or Big quiz you will print out the pdf. Write your answers as you would in a normal exam or Big quiz using dark pencil or pen. You will scan each page of your exam and Big Quiz with your phone and upload to gradescope. Note this will take some time so do not leave taking the exam or Big Quiz to the last minute.

Grading:

- 10 mini-quizzes due prior to the beginning of discussion sections, 1.5 pts each (15 points)
- 3 Big quizzes, 1 in each module, 25 pts each (75 points)
- In class quizzes and/or homework and/or class active participation (75 points)
- Section Participation (10 points)
- Two midterms 150 pts each (300 points)
- and extra readings can be found in the individual pages described in the module.
- Cumulative final: 300 pts
- 775 pts total
- We will assign grades on a generous curve. In the past about 70% of students have received A's and B's. This generosity is the result of the students working hard to master the material.

Make-up exams

- There will be no make-up exams. Failure to take an exam without an excuse will result in a zero grade for the missed exam. If you have a legitimate excuse, your absence will be accepted for only one missed exam, and only if you contact the lecturing professor or one

of the GSIs one week before the exam. Credit for the missed exam will be calculated based on your average performance on the exams that you do take.

Regrades

- Written regrade requests must be presented to your GSI within seven days after the exams are returned. To be eligible for a regrade you must have answered your exam questions in pen. You must present to your GSI the graded exam and a written proposal describing why you believe an error was made. The entire exam will then be subjected to a regrade. Exams will be copied before they are returned. Altering an exam to gain points on a regrade is cheating. Any alteration of an exam submitted for a regrade will be considered as cheating and will result in an F for the course.

Cheating

- You will be asked to sign the UC Berkeley Honor Code for each quiz and exam. A good lifetime strategy is always to act in such a way that no one would ever imagine that you would even consider cheating. Anyone caught cheating on a quiz or exam in this course will receive a failing grade in the course and will also be reported to the University Center for Student Conduct. In order to guarantee that you are not suspected of cheating, please keep your eyes on your own materials and do not converse with others during the quizzes and exams.
- We reserve the right to “spot check” your answers to exams through a brief one-on-one oral exam during which you will be asked to explain your logic.

Students with special needs

- Inform your GSI of any accommodations needed during the first week of the course.

Letters of Recommendation

- Any of the three instructors may be approached for a letter of recommendation. We all are quite willing to provide a written evaluation for this purpose. So that we may prepare effective evaluations we ask that you follow the procedure outlined here. Be sure to attend at least 2 of the instructor’s office hours. In addition, ask your discussion section GSI to write a brief note about your participation in section to the instructor. Sometime after the end of the course, contact the instructor and bring a copy of your complete transcript, your CV and Personal Statement along with any recommendation forms that need to be filled in.