Welcome to BIMM110- Molecular Basis of Human Disease!

| Week | Monday lecture | Tuesday lecture | Wednesday lecture | Thursday lecture | Sections |
|---|---|---|---|---|---|
| 1 | **July 1**<br>Intro to class and Cystic Fibrosis<br><br>Video posted on Canvas | **July 2**<br>Molecular mechanisms of CF<br><br>Video posted on Canvas | **July 3**<br>Guest lecturer Dr. Zohreh Akhavan "Cancer: causes, challenges, and therapies"<br><br>Class prep: read https://www.nytimes.com/2018/10/01/health/nobel-prize-medicine.html | **July 4**<br>Holiday no lecture | Get to know your IA<br><br>How to read a scientific paper<br><br>Practice questions |
| 2 | **July 8**<br>Inexplicable disease<br><br>Assignment 1 due | **July 9**<br>Quiz 1 | **July 10**<br>Manipulating genes<br><br>Class prep: watch two online lectures posted on Canvas | **July 11**<br>Dissect a CRISPR paper<br><br>Schwank et al. (2014) limitations, future directions<br><br>Malaria | Assignment 1 discussed<br><br>Discuss CRISPR in Schwank et al. (2014) |
| 3 | **July 15**<br>MCR guest lecturer Dr. Valentino Gantz<br><br>Class prep: TBD | **July 16**<br>Duchenne muscular dystrophy<br><br>Class prep: TBD | **July 17**<br>Gene therapies for Duchenne muscular dystrophy and CF<br><br>Class prep: TBD | **July 18**<br>Quiz 2 | Discuss… |
| 4 | **July 22**<br>HIV<br><br>Class prep: TBD | **July 23**<br>Podcast on HIV drugs and class activity | **July 24**<br>Alzheimer's guest lecturer Dr. Jose Soria Lopez<br><br>Watch video posted on Canvas | **July 25**<br>CTE<br><br>Class prep: TBD | Discuss… |
| 5 | **July 29**<br>Type I diabetes<br><br>Class prep: TBD<br><br>Assignment 2 due | **July 30**<br>Type II diabetes Metabolic syndrome<br><br>Class prep: TBD | **July 31**<br>Review | **August 1**<br>Summary and future directions | Assignment 2 discussed<br><br>Exam prep |

**BIMM110- Molecular Basis of Human Disease**
**Summer Session I 2019**
**Lectures: PETER 102, MTWTh 2:00 PM - 3:20 PM**

**Instructor: Stephanie Alfonso, PhD**
**Office Hours: H&SS 1145 I, Wed 12-2pm**
**salfonso@ucsd.edu**
**I will do my best responding to emails that require short answers. For questions that require explanations or urgent answers, please see me in my office hours or right after class–I am more than happy to answer your questions then.**

**IA/TA: Jennifer Grundman, jagrundm@ucsd.edu**
**Office Hours: outside Club Med, Friday 9 am**

*Course Description*
An examination of the molecular basis of human diseases. Course emphasizes inherited human disorders, and some important diseases caused by viruses. Focus on the application of genetic, biochemical, and molecular biological principles to an understanding of the diseases. Prerequisites: BICD 100 and BIBC 100 or BIBC 102 and BIMM 100, upper-division standing.

*Course Learning Outcomes*
Upon completion of this course, learners will be able to:
1. Clearly communicate an understanding of the molecular processes underlying major human diseases.
2.Search published literature and other sources of scientific information to retrieve and use credible information.
3. Explain the current understanding and the available treatments of several representative human diseases.
4. Interpret and draw appropriate conclusions from scientific data.
5. Demonstrate understanding of the techniques we will learn about and the ability to design experiments using these techniques.

*Course Materials and Tools*

Text/Readings/Other material
There is no required course textbook.Instead, we will use review articles, original research papers, and reliable web sites.

Canvas
coursefinder.ucsd.edu
Login: UC San Diego Active Directory credentials

*How the course will be taught*
This is a hybrid class: learn the basics before lecture, so we can get to advanced material in class.

Sections are a very important part of this course: this is where you will test your learning by solving problems and explaining the material to your group. Unless stated otherwise on the syllabus, the sections are mandatory.
All lecture slides will be posted on the website and are available for download after class.

Final exam – proctored
8/2/2019 3:00- 5:59 PM, room TBD

*Grading Information*

| Category | % of Grade |
|---|---|
| Homework assignments X 2 | 20 |
| Quizzes X 2 | 40 |
| Final Exam | 30 |
| Sections Attendance | 10 |
| | 100 |

Grading Scale
A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = 59%-below

Quizzes: in class, you can miss one of them and have those points come from your final exam. However, I strongly recommend taking the quizzes, because it's a great low-stress practice.
Since it takes several days to write an exam, I will not be able to offer make-up exams. Please check your schedule and make sure that you are available on the date of the final exam. If you have a conflict with the final exam in another class, please drop this or the other class.
If you are having a family or medical emergency during the final exam, please provide documentation (e.g., emergency room paperwork) and contact me as soon as you can to schedule a comprehensive oral exam.

Assignments:
Based mostly on papers and are due at the beginning of lecture as a hard copy.

Sections attendance:
Total 10 points.

*Students with disabilities*
Reasonable accommodations will be provided for qualified students with disabilities. If you have any disability that may impair your ability to complete the course successfully, please contact me during the first week of the course.

*Academic Integrity*

We take academic integrity very seriously. Cheating undermines honest effort and hard work by other students. It will not be tolerated. Cheating on exam, submitting someone else's work as your own, copying all or parts of someone else's section paper are all examples of academic dishonesty. Please talk to the instructor or the IA immediately if you learn of any incidents of academic dishonesty UCSD Policy of Academic Integrity, student's responsibilities:

Students are expected to complete the course in compliance with the instructor's standards. No student shall engage in an activity that involves attempting to receive a grade by means other than honest effort; for example:

No student shall knowingly procure, provide, or accept any unauthorized material that contains questions or answers to any examination or assignment that is being, or will be, administered.

No student shall complete, in part or in total, any examination or assignment for another person.

No student shall knowingly allow any examination or assignment to be completed, in part or in whole, for himself or herself by another person.

No student shall plagiarize or copy the work of another person and submit it as his or her own work.

No student shall employ aids excluded by the instructor in undertaking course work or in completing any exam or assignment.

No student shall alter graded class assignments or examinations and then resubmit them for regrading.

No student shall submit substantially the same material in more than one course without prior authorization.

Completing paper assignments: using sentences from scientific papers and websites is plagiarism (this includes copying and pasting sentences and changing a few words in them). Paper assignments will be submitted to Turnitin. If plagiarism is detected, your assignment will receive an automatic 0 (no exceptions). To avoid plagiarism, be sure to first understand what you are about to write. Then write in your own words. If you do so, your text will not be similar to authors' text. If you are having difficulties with writing based on scientific articles, please talk to the IAs or to me.

Consequences of cheating:

Cases of cheating will be reported to the Office of Academic Integrity, who will forward them to the Dean of the student's college. In addition, the grade for the assignment in which the cheating occurred will be an 'F'. Cheating on exam will result in 'F' in the course, as well as in administrative consequences. To learn more, please read:
https://students.ucsd.edu/academics/academic-integrity/consequences.html

*How to succeed in this class*

Do the assigned reading. Serious engagement with the material before class will lead to significantly higher gains in class. Be proactive, reach out and get help! If you are having troubles with any part of the course material, talk to me or the IA and come to our office hours. Please don't wait! We care about the success of each and every student and we want to help. Critical thinking is hard. Work with your classmates or form a study team, and put your collective intelligence to work. Come to my and IA's office hours (and sections) and ask questions. Don't be discouraged if you don't understand everything: you are here to learn. Plan ahead. If you anticipate that you'll need help with homework or with exam prep, allow yourself enough time to

attend office hours and get your questions answered. I or the IA will not be able to answer last minute questions emailed to us a few hours before the exam. To get best help, see us in person. Attend classes and sections. Do the section and in class activities. It takes time to build up knowledge and skills, don't leave it to the last minute. Cramming the night before the exam will not work in this class.

**Good luck! We want all of you to succeed**