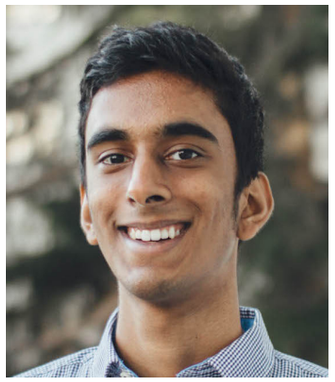
BioE131/231

Syllabus & Policies

Instructor: Ian Holmes
GSIs: Connor Bybee, Vikram Shivakumar

Ian

Connor



Vikram

BioE131/231, Fall 2020

- Lectures: Zoom, synchronous
  - MWF 2pm
- Office hour: Zoom, synchronous
  - Wednesday 1pm
- Exams: bCourses, synchronous

  Midterm: 10/14/2020, 2-3pm

  Final: 12/17/2020, 3-6pm
- Labs: bCourses, asynchronous
- Homeworks
  - Roughly 10 total
  - Testing practical/programming skills
- GSIs are responsible for labs & homework grading - please contact them first

50% homework/projects
20% midterm exam
30% final exam

BioE131/231 Syllabus

Week	Module
1	Molecular biology review
2	Biological file formats and databases
3	RNA folding algorithms
4	Basic probability and statistics
5	Information theory
6	Pairwise sequence alignment (1)
7	Pairwise sequence alignment (2)
8	Review, midterm
9	Multiple sequence alignment
10	Phylogenetics
11	Genome assembly & annotation
12	Review, catchup
13	Ontologies
14	Grammars and automata
15	Special topic: neural networks

Alignment of modules to weeks is approximate…

How to maximize GPA

- **Do the practice quizzes.**
  After each module (or sometimes pairs of modules), I will post a practice quiz. These will be self-graded: the answers will be posted on bCourses. Use these to understand what the scope of examinable content is from the lectures, and to test your comprehension of this content.

- **Use the office hours.**
  Office hour is for everyone: if you are struggling, come to office hour. If you are bored, come to office hour. If you like the material and want to know more about recent research, come to office hour. My ideal is to for everyone to at least visit office hour for ~5 minutes over the first few weeks.

How to maximize GPA

- **Plan ahead.**
  Students who get A's in this class typically work consistently throughout the semester, submit homework on time (late homework penalty is steep, increases rapidly with each late day, and won't be waived except for personal and family emergencies: "I have other classes" won't work), and start revising for exams at least two weeks ahead. Don't hope for miraculous recoveries based on your final project or final exam. Work all the way through.

- **Give feedback.**
  It works.

- **Know when to quit.**
  It might seem odd to talk about quitting at all, because we want all of you to succeed. Speaking empirically, however, one or two people have dropped out of this class every year. The general phenotype the leavers have in common is a deep, irremediable loathing of programming. If that sounds familiar, this class may not be for you at this stage of your academic career. There's no shame in that (you won't get an A in this class but it'll probably be good for your GPA overall). If you have done any programming at all in your life, then this probably doesn't apply to you: rest assured, we will help with programming questions.