

Policies

Course Description

Foundations of Data Science combines three perspectives: inferential thinking, computational thinking, and real-world relevance. Given data arising from some real-world phenomenon, how does one analyze that data so as to understand that phenomenon? The course teaches critical concepts and skills in computer programming and statistical inference, in conjunction with hands-on analysis of real-world datasets, including economic data, document collections, geographical data, and social networks. It delves into social issues surrounding data analysis such as privacy and design.

Prerequisites

This course does not have any prerequisites beyond high-school algebra. The curriculum and format is designed specifically for students who have not previously taken statistics or computer science courses. Students with some prior experience in either statistics or computing are welcome to enroll and will find much of interest due to the innovative nature of the course. Students who have taken several statistics or computer science courses should instead take a more advanced course.

Materials & Resources

Our primary text is an online book called Computational and Inferential Thinking: The Foundations of Data Science (<http://inferentialthinking.com/>). This text was written for the course by the course instructors.

The computing platform for the course is hosted at datahub.berkeley.edu (<http://datahub.berkeley.edu/>). Students find it convenient to use their own computer for the course. If you do not have adequate access to a personal computer, we have machines available for you; please contact your lab TA.

Support

You are not alone in this course; the staff and instructors are here to support you as you learn the material. It's expected that some aspects of the course will take time to master, and the best way to master challenging material is to ask questions. For online questions, use Piazza (<https://piazza.com/berkeley/fall2018/data8>). We will also hold office hours ([office-hours.html](#)) for in-person discussions. Small-group tutoring sessions will be available for students in need. In past semesters, students who attended have found these sessions to be a great use of their time. Details about sign-ups will be available later in the term

Disclaimer

The rest of this page details the policies that will be enforced in the Fall 2018 offering of this course. These policies are subject to change until the beginning of the semester and throughout the remainder of the course, at the judgement of the course staff.

Labs

Weekly labs are a required part of the course. Labs will be released Sunday night. You can get credit for each lab in one of two ways described below:

- Attend your own assigned lab section, make progress substantial enough for your work to be checked off by course staff, and submit your lab (even if it is incomplete) by the end of the lab period. Note that your submitted work need not be complete in order to receive full credit if you were checked off.

- Complete the lab on your own and submit the completed lab by Wednesday morning at 8:59am. If you choose this route, you must finish the entire lab and pass all tests to receive credit. This option is not encouraged by the course staff, and is only recommended if you are sure that you will not be able to make lab a certain week.

You may only attend the lab section that you are signed up for on SignupGenius.

Homework and Projects

Weekly homework assignments are a required part of the course. Each student must submit each homework independently, but are allowed to discuss problems with other students and course staff. See the "Learning Cooperatively" section below.

If you submit a homework or project 24 hours before the deadline or earlier, you will receive 1 bonus point on that assignment.

Data science is about analyzing real-world data sets, and so a series of projects involving real data are a required part of the course. On each project, you may work with a single partner; your partner must be from your assigned lab section.

Exams

The midterm exam will be held on Friday, October 12th, 7-8:30pm. Rooms will be announced closer to the date.

The final exam will be held on Thursday, December 13th, at 7-10pm.

Unless you have accommodations as determined by the university and approved by the instructor, you must take the midterm and the final at the dates and times provided here. Please check your course schedule and make sure that you have no conflicts with these exams. If you have a conflict with either exam, please post a private note on Piazza visible to Instructors before the end of the second week of classes.

Grades

Grades will be assigned using the following weighted components:

| Activity | Grade |
|----------|-------|
| Lab | 10% |
| Homework | 20% |
| Projects | 30% |
| Midterm | 10% |
| Final | 30% |

Overall, in past semesters of Data 8, more than 40% of the students have received grades in the A+/A/A- range, and more than 35% have received grades in the B+/B/B- range.

Late Submission

Late submissions of labs will not be accepted under any circumstances. The same goes for homework, unless you have relevant DSP accommodations that provide a two-day extension on homework assignments and you contact us before the assignment is due.

In lieu of offering exceptions or extensions, your lowest two homework scores and your lowest lab score will be dropped in the calculation of your overall grade.

Projects will be accepted up to 2 days (48 hours) late; a project submitted less than 24 hours after the deadline will receive 2/3 credit, a project submitted between 24 and 48 hours after the deadline will receive 1/3 credit, and a project submitted 48 hours or more after the deadline will receive no credit.

Waitlisted Students and Late Adds

If you are on the waitlist, we expect you to do all coursework and complete labs and lectures in accordance to the deadlines. It's your responsibility to stay up to date in the course. We list detailed expectations and resources for waitlist students (<https://piazza.com/class/ji0gwp9m57omr?cid=45>) on Piazza.

Learning Cooperatively

With the obvious exception of exams, we encourage you to discuss all of the course activities with your friends and classmates as you are working on them. You will definitely learn more in this class if you work with others than if you do not. Ask questions, answer questions, and share ideas liberally.

If some emergency takes you away from the course for an extended period, or if you decide to drop the course for any reason, please don't just disappear silently! You should inform your lab TA and your project partner (if you have one), so that nobody is expecting you to do something you can't finish.

Academic Honesty

Collaboration has a limit, however. You should not share your code or answers directly with other students. Doing so doesn't help them; it just sets them up for trouble on exams.

Make a serious attempt at the assignment yourself, and then discuss your doubts with others. In this way you, and they, will get more out of the discussion.

Please write up your answers in your own words and don't share your completed work. The exception to this rule is that you can share everything related to a project with your project partner and turn in one project between you.

Penalties for cheating are severe - they range from a zero grade for the assignment or exam up to an F in the course, or even dismissal from the University.

Rather than copying someone else's work, ask for help. You are not alone in this course! The course staff is here to help you succeed. We expect that you will work with integrity and with respect for other members of the class, just as the course staff will work with integrity and with respect for you.

A Parting Thought

The main goal of Data 8 is that you should learn, and have a fantastic experience doing so. Please keep that goal in mind throughout the semester. Welcome to Data 8.