

Probability

MWF
2:30-3:20
SCTR 155

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Office hours

M–Th 4:30-5:30 and by appointment.

Objectives

We will spend the semester studying the mathematical theory of probability, a variety of methods of thinking that are perhaps unique to this subject, and numerous applications.

Required text

Rick Durrett, *Elementary Probability for Applications*, Cambridge University Press. We will cover chapters 1–6. I hope to move at a brisk pace—but not a rushed one—and cover, in addition, some material not found in the book (Poisson Processes and Queueing Theory).

Homework

Homework will be collected on Wednesdays at the beginning of class. I encourage you to work with your fellow classmates, but I insist that you write up and submit your own solutions. Copying another student's work (or from a previous semester's solutions handouts) is a violation of the honor code. You will be graded on the correctness of your solutions and on how easy they are to read and understand. You will receive full credit for a solution to a problem if and only if a randomly selected student in the class would understand how to do the problem after having read your solution. Absolutely no late homework will be accepted without a valid excuse. A heavy workload in other classes is not a valid excuse.

Mini Projects

Each week or so I will distribute one homework problem that is longer, more involved, and more open ended than the others. I would like you to do three of these mini projects. I would like you to pay a great deal of attention to how you write up these mini projects. The write-ups for the mini projects will be collected on our last day of class. The same rules apply as for the garden variety homework assignments.

Exams

There will be two midterm exams and a final exam. The first midterm will be a closed-book in-class exam. It will be held on October 4. The second midterm will be an open-book take-home exam. The tentative distribution date is November 22. The final will take place at 2:00 pm on Friday December 20. It will be a closed-book exam, but you will be allowed a formula sheet.

Grading

The homework assignments will be worth a total of 20% of the final grade. The mini projects will be worth a total of 20%. Each midterm exam will be worth 20%. The final exam will be worth 20%.

Phones

When you come to class, please silence your cell phones. Setting them on vibrate is fine. If your phone rings in class, you will be expected to bring food for the entire class the next time we meet.

Help

Please feel free to ask me questions about the course (or anything else). If you find my office hours inconvenient, you are welcome to schedule an appointment (or just drop by).