

PROBABILITY I

UT Austin, M 362K, 54275, Fall 2016

Instructor

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Objectives

The course will be an introduction to the mathematical theory of probability, fundamental to further work in probability and statistics. It will cover basic probability properties, conditional probability and independence, various discrete and continuous random variables, expectation and variance, central limit theorem, and joint probability distributions.

Textbook

The main reference will be: Jim Pitman, *Probability*, Springer, copyright 1993.

Prerequisite

Mathematics 408D, 408L, or 408S with a grade of at least C-.

Class Place and Time

RLM 5.104, TTH, 9:30–11:00 a.m.

Teaching Assistant

Natasa Dragovic, ndragovic@math.utexas.edu

Homework

Homework will be assigned weekly. You will need to scan your homework and submit it electronically via Gradescope before 12 midnight on Thursday when it will typically be due. Late homework will not be accepted. Again you will need to create Gradescope account (you should have received an email regarding this with the code number MZGXD9) and details on the (pdf) scanning and uploading the homework will be provided in the first homework. The lowest scoring homework will be dropped when computing your overall grade.

Online Platform

Homework and related class material will be posted on Canvas. We will also be using Gradescope for convenient electronic submission and grading of homeworks. You should have received an email regarding setting up a Gradescope account (see above).

Course Expectations

Attendance is expected. You are responsible for material covered in class (some of which is not in the text book) and in the reading assignments in your book (even if not covered in class). My lectures should be clear. If you find a particular lecture incomprehensible give me some feedback.

You are highly encouraged to form study groups and discuss material and homework with other students, but you should not be simply copying from others. University disciplinary procedures will be invoked if any form of academic dishonesty is detected.

Exams

There will be two in class mid-term exams and a final exam which are scheduled for the following dates:

- Midterm 1: In class, Thursday, October 6 (tentative).
- Midterm 2: In class, Tuesday, November 15 (tentative).
- Final: Thursday, December 8, 2:00-5:00 pm.

These exams are closed book, however you are allowed to bring a single cheat-sheet (8.5 x 11 inch paper). You can write on both sides. The material on the cheat sheet needs to be handwritten and not photocopied. I will not be creating make-up exams under any circumstances. Thus if you miss a midterm exam, you need to let me know prior to the exam, and will need to provide official and convincing documentation (i.e., university student services, or health services) to be excused. e.g., a written note addressed to me on your behalf by a professional whom I can call to verify the circumstance you are in. I will determine if the absence is excused on a case-by-case basis. If you have an excused absence for an exam, your exam score will be calculated as the weighted average of the other mid-term exam and final scores based on their relative weights. Unexcused absences will result in zero points for the exam. If you miss the final exam you will be assigned a zero on the final.

Grading

The relative weights will be: Homework: 20%, Midterm 1: 20%, Midterm 2: 20%, Final exam: 40%. The exam grades will be based on a 100-point scale. The weighted sum of these grades will determine your course letter grade as follows: A (100-93), A- (92-90), B+ (89-87), B (86-83), B- (82-80), C+ (79-77), C (76-73), C- (72-70), D+ (69-67), D (66-63), D- (62-60), F (59-0). However, I reserve the right to give more liberal grades than these based on a curve that adjusts the scores upward.

Office Hours:

- Instructor: TTH, 2–3:30 pm, in RLM 11.136.
- Teaching Assistant: TTH, 11–12 am, in RLM 10.138.

Academic Adjustment

The University of Texas at Austin provides, upon request, appropriate academic adjustments for qualified students with disabilities <http://diversity.utexas.edu/disability/>. For more information, contact the Services for Students with Disabilities (SSD) office of the Student Dean's Office.