Statistics 251: Introduction to Mathematical Probability (Section 2)

Logistics

Lecture: MWF 11:30am-12:20pm, on Zoom.
Textbook: *A First Course in Probability* by Sheldon Ross (6th, 7th, 8th, 9th, or 10th edition). Available via UChicago libraries at `catalog.lib.uchicago.edu/vufind/Record/7543804`
Website: `yisun.io/teaching/autumn2020/stat251/stat251.html`
Instructor: Yi Sun (`yisun@statistics.uchicago.edu`), office hours 12:20pm-1:30pm Monday on Zoom.
TAs: TBD

Overview and prerequisites

Overview: This course covers fundamentals and axioms; combinatorial probability; conditional probability and independence; binomial, Poisson, and normal distributions; the law of large numbers and the central limit theorem; and random variables and generating functions.
Prerequisites: One of the following:

- Math 16300, Math 16310, Math 20500, Math 20510, or Math 20900, with no grade requirement;
- Math 19520 or Math 20000 with either a minimum grade of B-, statistics major, or current enrollment in prerequisite course.

Contact me by email if you have questions about whether this course is appropriate for you,

Course Policies

Lectures: Lectures will be synchronous on Zoom during the scheduled lecture time. There is an expectation that students in this course will be actively engaged while on Zoom.
Homework: There will be weekly written homeworks due Monday. Homework should be submitted on Gradescope by the beginning of lecture on Monday. See the course website for submission information.
Exams: There will be a midterm exam and a cumulative final exam according to the following schedule.

- Midterm: Friday, October 30 during class
- Final Examination: Scheduled by the registrar

The use of notes, textbooks, or electronic devices will not be allowed during exams. No make-up exams will be offered without a letter from the dean or a doctor's note. No make-ups are possible for the final exam.
Grading: The final course grade will be determined according to the following formula:

$$(20\%\text{ Homework}) + \max\{(80\%\text{ Final}), (50\%\text{ Final}) + (30\%\text{ Midterm})\}.$$

The lowest homework score will be dropped to accommodate illness and other unforeseen circumstances. **Late homework will not be accepted.**
Collaboration and Academic Integrity: I encourage you to work together on homework! For written homework, you must write your solutions alone and **understand what you write**. When submitting your homework, you should cite any sources you used (text or human) other than the textbook and myself.
Accessibility: The University of Chicago is committed to ensuring equitable access to our academic programs and services. Students with disabilities who have been approved for the use of academic accommodations by Student Disability Services (SDS) and need a reasonable accommodation(s) to participate fully in this course should follow the procedures established by SDS for using accommodations. Timely notifications are required in order to ensure that your accommodations can be implemented. Please meet with me to discuss your access needs in this class after you have completed the SDS procedures for requesting accommodations. Information on the SDS registration process is available at `disabilities.uchicago.edu`.
Recording: The Recording and Deletion Policies for the current academic year can be found in the Student Manual under Petitions, Audio, and Video Recording on Campus.

- Do not record, share, or disseminate any course sessions, videos, transcripts, audio, or chats.
- Do not share links for the course to those not currently enrolled.
- Zoom cloud recordings will be automatically deleted 90 days after the completion of the recording.

COVID-19: Students who have been exposed to or who are experiencing symptoms of COVID-19 should contact UChicago Student Wellness (`wellness.uchicago.edu`) immediately to be tested, and reach out to their area Dean of Students to request accommodations for classes until:

- At least 10 days have passed since symptoms first appeared and;
- At least 3 days (72 hours) have passed since recovery, defined as resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms (cough, shortness of breath).

Getting Help

Tutoring: UChicago offers peer tutoring via the Core Tutoring Program. See more information at `college.uchicago.edu/academics/college-core-tutor-program`.
Contact me: Please come to office hours or email me for help if you are having difficulty with the material.