

INFORMATION ON MATH 5160

MASHA GORDINA

Probability theory and stochastic processes

GENERAL INFORMATION

Instructor: Professor Masha Gordina.

About this syllabus: this document is subject to change. **Web links** are clickable and are in teal.

Textbook: *Probability Theory*, by S.R.S. Varadhan. Individual chapters are available at [Professor Varadhan's website](#).

Class meets on Tuesday and Thursday at 9:30 am - 10:45 pm in MONT 414.

Office hours: Tuesday, Thursday 11:00am-noon, MONT 340 or *by appointment* (virtually or in MONT 340).

Web site: for more up-to-date information go to [my department web site](#) or [Piazza course web site](#). The HuskyCT course site will be used for logistical purposes only, all announcements will be made through Piazza.

Homework: will be assigned regularly on Piazza.

Piazza: To access *Piazza* for the first time, log in to the *HuskyCT* course site, click on *Piazza Discussion Board* on the side menu, and then click *Continue* to confirm your enrollment in the Piazza site.

We will be using Piazza for class discussions, announcements and course materials. If you have any questions about the homework or class material, please post them on Piazza or ask during office hours. If you use Piazza, then the whole class can benefit from the discussion. There is an option of posting your questions anonymously. The system is highly catered to getting you help fast and efficiently from your classmates and myself. Rather than emailing questions to me, I encourage you to post your questions on Piazza. You can post questions using \LaTeX .

\LaTeX : A large part of the homework will involve mathematical writing. It will be helpful to write your homework using \LaTeX . Some basic information about \LaTeX and introduction can be found at the links below. You are provided with a homework template as well.

[Learn LaTeX in 30 minutes from Overleaf](#)

Introduction to Latex Workshop, Oregon State University

The Art of Problem Solving: introduction to LaTeX

Exams: TBD. The final is cumulative.

Make-up policy: **No** make-up exams will be given, no late homework accepted.

Grading: homework 70%, and final exam 30%.

Class guidelines: turn off all cell phones, laptops *etc* before the start of class; if you are late to class, please enter quietly and take your seat quickly; cheating of any kind is absolutely unacceptable and will result in failure of the assignment. In addition, the course materials are **not** to be used or distributed outside of this class. Please review the Academic Integrity in Undergraduate Education and Research in the Student Code: <http://community.uconn.edu/the-student-code-appendix-a/> and the Graduate Student Integrity Policy <http://policy.uconn.edu/2014/04/11/>.

You are *encouraged* to collaborate with other students on homework, but you should write up your solutions individually. You should **acknowledge** your collaborators on your homework.

COURSE INFORMATION

Course description. This is a first-semester course on probability theory at the graduate level, focusing on limit theorems and discrete-time stochastic processes. Prior experience with probability at the undergraduate level or measure theory is not required. Solid background in real analysis and linear algebra at the undergraduate level is assumed.

This course is a prerequisite for Math 5161 (Probability Theory and Stochastic Processes II) offered in the spring semester. The course covers many topics listed in the study guide for the probability [prelim exam](#), but this course does not serve as a preparation for the exam.

Disclaimer. The instructor reserves the right to modify or adapt this syllabus to account for disruption due to COVID-19 or other unexpected circumstances.