Syllabus for MA 583 - Introduction to Stochastic Processes Summer 2021

Yi Sun, Yuning Pan

Lecture

Classroom

COM 215 (**Building Location**: 640 Commonwealth Avenue)

Time

	Date	Time
Lectures	Mondays, Tuesdays, Wednesdays	9:00 a.m.–11:00 a.m.
Discussion	Thursday	9:00 a.m.–11:00 a.m.

LfA Compatibility

All lectures and discussion sessions will be recorded and uploaded.

Instructor

Yi Sun:
Email: ysun4@bu.edu
Office Hour: Tuesday 12:00 p.m.-1:00 p.m.

Yuning Pan:
Email: pyuning@bu.edu
Office Hour: Thursday 11:30 p.m.-12:30 p.m.
and by appointment

There are links to all of the Zoom lectures, discussion sessions and office hour meetings from the "Zoom" tab on the course site http://learn.bu.edu/.
We are happy to meet with you outside of regularly scheduled office hours. Please send us an email to schedule an appointment. You are also free to email us about any problems you struggle with.

For help on the material of the course, besides our office hours, you can also stop by the tutoring room. There is a virtual tutoring room help Monday through Thursday from 11 AM to 11 PM where you will find at least one graduate student to ask for help. This is a free resource for everybody, though I recommend checking the Tutoring Expertise link before logging on at any random time. For more information and the link to the room, check the following link:www.bu.edu/math/undergraduate/resources/tutoring-room-schedule/

Course Description

This course is an introduction to stochastic processes. Topics include Markov chains, Poisson processes, birth/death processes, and renewal processes.

Textbook

An Introduction to Stochastic Modeling, 4th ed., by Mark A. Pinsky and Samuel Karlin. ISBN: 978-0123814166.

Homework

There will be weekly assignment due at 11:59 pm EST on Friday. Late submission will not be accepted. Each homework will include multiple exercises, and you need to write each exercise on a separate page (one question per page), and then you need combine all pages as one single file and upload on the Gradescope. You can either write your work on paper and scan it or write on a tablet and convert to a PDF file or type answers using LaTex. When you submit your work, you will also need to assign each page to the corresponding question on the Gradescope. You're allowed to collaborate on your homework, but you must write up your mission on your own.

Exams

There will be one midterm exam and one final exam. Each exam will be open book and open notes. Exams will be held via Zoom during class. The exam questions will be uploaded to Gradescope. Your exam solutions must be submitted in PDF format. There are many convenient cell phone applications that you can use to take photographs of handwritten solutions and turn them into a PDF. Two examples of these programs are Scannable (for Apple only) or CamScanner (for Android).

All answers to the exam questions must be written in complete sentences. You must show each step of your work. You can get a lot of partial credit for a well-explained solution with some mathematical errors. You will get little or no credit for a numerically correct answer with no explanation.

The final exam will be cumulative.

	Planned Date	Time
Midterm Exam	July 21th	9:00 a.m.–11:00 a.m.
Final Exam	Aug 12th	9:00 a.m.–11:00 a.m.

Grades

Grades will be weighted to make a 100% total.
Homework: 30%
Midterm Exam: 30%
Final Exam: 40%

Excused Absences and Make-ups

Please let me know about all religious observances at the beginning of the session. In extreme circumstances (religious observance, death in the family, emergency) there can be make-ups for exams.

Academic Integrity

Undergraduates are responsible for knowing, and abiding by, the provisions of the CAS Academic Conduct Code, which is posted at http://www.bu.edu/academics/resources/academic-conduct-code/. Similarly, graduate students are responsible for knowing, and abiding by, the provisions of the GRS Academic Conduct Code, which is posted at http://www.bu.edu/academics/resources/academic-conduct-code/. Violations of the code are punishable by sanctions including expulsion from the University.