

MA 583 - Introduction to Stochastic Processes-Spring 2019

Instructor: Konstantinos Spiliopoulos

Office: 111 Cummington Street, Room 222

Email: kspiliop@math.bu.edu

Course web-page: <http://math.bu.edu/people/kspiliop/MA583Spring2019.html>

Meets: TuTh... 09:30-10:45AM at EPC 207

Text: *An Introduction to Stochastic Modeling*, 4th edition, Mark Pinsky and Samuel Karlin, Academic Press

Recommended Texts:

1. *A First Course in Stochastic Processes*, 2nd edition, Howard M. Taylor and Samuel Karlin, Academic Press
2. *Stochastic Processes* S.M. Ross, John Wiley & Sons, New York

Prerequisites: Undergraduate Prerequisites: CAS MA 581 or CAS MA 381; or consent of instructor. Graduate Prerequisites: CAS MA 581; or consent of instructor. The students are required to have a solid understanding of basic probability and calculus.

Course Description: Basic probabilistic problems and methods in operations research and management science. Methods of problem formulation and solution. The course will cover basic stochastic processes such as simple random walk, Markov chains, Martingales, Poisson processes, and Brownian motion.

Tentative grading policy: Your grade will be based on : (a) Homework (30%), (b) midterm exam (30%) and final exam (40%). The grading policy may change according to the progress of the class.

Exams: There will be one midterm exam and one final exam. The exam material for each one of the two exams will be announced in class and posted on the webpage of the course/Blackbaord. The final exam will cumulative. Hence, make sure that you have learned from your mistakes of the midterm.

Homeworks: There will be several homeworks, both theoretical and more of applied flavor. The due date of each homework will be announced in class and it will usually be 7-10 days after. Needless to say, you should work on the homework on your own, unless otherwise instructed by me. The lowest homework will be dropped if you participate in class. Late homeworks will NOT be accepted.

Late homework policy: No late homeworks will be accepted.

Make-up policy: Make up exams will be given only in extreme circumstances, and only when accompanied by appropriate documentation. Any student with a valid reason to be given a make up exam must contact me prior to the exam, either by email or in person, and present documentation at the next class session attended.

Cheating: No form of cheating or plagiarism will be tolerated. University's policy and my policy are very strict here.