Operations Research: Probabilistic Models (APMA 1200)

Spring semester, 2020

Instructor:
Anastasios Matzavinos

Office:
Room 325, 182 George Street

Class meeting times:
Tu & Th 9:00 am – 10:20 am
List Art Center 120

Instructor's office hours:
Tu & Th 1:00 pm – 2:00 pm
(or by appointment)

Teaching assistants:
Ching-Peng Huang (GTA)
Hanye Zhu (GTA)
Yue Xin (Sophia) Li (UTA)
George Hu (UTA)

Office hours of TAs:
M & Tu 11:00 am – noon
Th 4:00 pm – 6:00 pm
M & W 1:00 pm – 2:00 pm
Tu 4:00 pm – 6:00 pm

Class web page:
https://canvas.brown.edu/courses/1080261

Announcements and other information about the class will be posted regularly on the class web page.

Course description:

APMA 1200 serves as an introduction to stochastic processes and stochastic optimization. Topics covered include Markov chains, Poisson processes, renewal processes, martingales, queueing theory, Markov decision processes, dynamic programming, and Brownian motion.

Prerequisites: APMA 1650, 1655 or MATH 1610, or written permission.

Required text:

The following textbook is required reading for APMA 1200.

- Markov Chains by James R. Norris. Cambridge University Press, 1997.

Grading policy:

The final grade will be based on homework assignments, a take-home midterm exam (see below for dates) and a final exam:

Homework assignments	**30%**
Midterm exam	**30%**
Final exam	**40%**

Homework assignments: Homework problems will be handed out on a regular basis. Discussion of homework assignments with other students is encouraged, but what is handed in should be your own work.

Important dates:

Midterm exam	**Tuesday, March 10**
Final exam	**Thursday, May 7**

Accommodations and other considerations:

Brown University is committed to full inclusion of all students. Please inform me early in the term if you have a disability or other conditions that might require accommodations or modification of any of these course procedures. You may speak with me after class or during office hours. For more information, please contact Student and Employee Accessibility Services at 401-863-9588 or SEAS@brown.edu.

Students in need of short-term academic advice or support can contact one of the deans in the Dean of the College office.