IE 313: Operations Research III
Spring 2022

Instructor: Baris Balcioglu
Office: FENS G001A
Phone: 0 216 483 99 65
E-mail: balcioglu@sabanciuniv.edu

Office Hours: by appointment via Zoom

Lectures: Section A: Tuesday: 10.40-11.30 in FMAN 1099 (sometimes online)
Thursday: 12.40-14.30 in FMAN 1099

Zoom link:
https://sabanciuniv.zoom.us/j/93077927219?pwd=MFVvTkRRUHdpMlFvR1VmcE5sZ1NOQT09
Pass code: susu2020

Recitations (Online):
Yasaman Ardebili (yasaman@sabanciuniv.edu) A1 Monday 13.40-14.30
B1 Monday 14.40-15.30
Zoom link for A1-B1: https://sabanciuniv.zoom.us/j/4261134349

Saeedeh Ahmadi Basir (saeedeh@sabanciuniv.edu) A2 Monday 13.40-14.30
B2 Monday 14.40-15.30

Zoom link for A2-B2: https://sabanciuniv.zoom.us/j/4211467477

Additional TA's: Fatemeh Gholizadeh (fatemehg@sabanciuniv.edu)
Ayşe Neslihan Şener (neslihan.sener@sabanciuniv.edu)

Course Description: The mission of this course is to continue the study of modeling and solution of decision problems using operations research techniques with a particular emphasis on stochastic aspects.

Recommended Text Book *Introduction to Stochastic Processes with R*., Robert P. Dobrow, 1st Ed., Wiley. **(Available as E Book at the IC)**

Grading

Midterm 1	30% (Sunday April 17, 2022, starts at 13.40)
Midterm 2	30% (Saturday May 28, 2022, starts at 12.40)
Final Exam	40%

Remarks: TopHat exercises are not for grading (the grades I will use do NOT mean anything but just help me see your answers). This is for us to understand where you are in terms of the course content. The invitation code is 809198.

Important Rules:

1. You have to have a valid reason for not taking an exam. If a proof such as a medical report is not brought to me before or within the first three days of the exams you will NOT be given a make-up exam and will be assumed to score 0 in the exam you have missed. The make-up exams may need be scheduled after the final exam and it may be comprehensive.

2. Be respectful to your TA's! The professor will deal with the objection hours.

Topics to be covered:

1. Discrete time Markov chains
2. Continuous time Markov chains
3. Poisson Process
4. Queueing models based on the birth-and-death process

Computational Part

1. Install Anaconda (https://www.anaconda.com/products/individual-d). You can follow the guide uploaded to SU Course.
2. Install Arena simulation package following the guide on SU Course.