IE 313: Operations Research III
Fall 2020

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Office Hours: by appointment

Teaching Assistants: Saeedeh Ahmadi Basir- E-mail: saeedeh@sabanciuniv.edu
Sina Shahri Majarshin - E-mail: ssina@sabanciuniv.edu

Lectures: Tuesday: 11.40-12.30 (Online through Zoom, Zoom Meeting ID: 5179244142)
Thursday: 10.40-12.30 (Online through Zoom, Zoom Meeting ID: 5179244142)

Recitations: (Offline Problem Solving) will be uploaded on google drive.

Note: Lectures and Recitations can be asynchronously watched. Generally, we will have online classes for Lectures.

Office Hours of TA's :
Saaedeh Ahmadi Basir - Wednesday 13:00-14:00- Zoom ID: 4211467477
Sina Shahri Majorshin – Friday 15:00-16:00- Zoom ID: 3080679987

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 Policy

Midterm	25% -3 December 10:40-12:40
Final	35% -TBA (during final exams week)
Assignments	40% - (6 Assignments)

Exam Policy

- Exams are closed book. This means that during the exams, the use of books, notes, electronic devices (including cell phones, smart watches, calculators, computers etc.), but you are allowed to use one or two pages of cheat sheet, where you can write formulas and/or examples, etc. A student violating this rule will receive 0 points for that exam.
- During exam, we will do online proctoring through Zoom. You will need to have working cameras, which will show your face and some part of your desk. If there is any technical issue during the exam coming from your side, you are allowed to take make-up exam. But taking make-up exam is not recommended.

Assignments: In the assignments, there will be one or two questions, and you will be asked to model the problem mathematically as well as compute results through phyton.
If you are having difficulties about completing assignments, please contact me or your TA for help.

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

Computation Part

Install Anaconda (https://docs.anaconda.com/anaconda/install/). After the installation you will use Spyder to write the programs in Python