

EM 602- MANAGEMENT SCIENCE

Dr. Layek Malek

Fall 2025

Recommended TEXT: Taha, H., Operations Research: An Introduction, 11th Edition, Prentice Hall, 2023

Office Hours: Thursday 4:30 – 5:30 or by appointment
Office: Mech. 330
Telephone: 973-596-3648

Lectures	SUBJECT
1	Introduction to Management Science
2	Linear Programming; Problem formulation
3	The Simplex Method, and the big M Method
4	Duality and sensitivity analysis
5	The transportation and assignment problems
6	Shortest Path Algorithms
7	Dynamic Programming
8	Deterministic Inventory Models
9	Deterministic Inventory Models (continued)
10	Stochastic Inventory Models
11	Queuing Theory, Introduction
12	M/M/1/ ∞ Systems and M/M/C/K Systems
13	Management Science in perspective

***Approximate (The equivalent of two classes is for test)**

Grading

Mid Term 33%
Final Exam 33%
Class work 34%