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# EM 602-101: Management Science

Layek Abdel-Malek

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### **EM 602- MANAGEMENT SCIENCE**

#### Dr. Layek Malek

#### Fall 2020

Recommended TEXT: Taha, H., Operations Research: An Introduction, 10th Edition, Pearson, 2017

Tuesday& Thursday 4:30 – 5:30 and by appointment
Mech. 302
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	$M/M/1/\infty$ Systems and $M/M/C/K$ Systems
13	Management Science in perspective

## \*Approximate (The equivalent of two classes is for tests )

Grading: Midterm 33% Final 33% Class work 34%