

Math 424/524: Operations Research II

Spring, 2008

TR 11:00–12:20 Jones 306

Instructor: Larry Leemis

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Office hours: Tuesday and Thursday: 2:00 - 3:20 PM, or by appointment

Purpose:

This class surveys stochastic applications in operations research with an emphasis on elementary stochastic process models.

Prerequisites:

Calculus-based probability (Math 401/501 or equivalent) and some exposure to statistics (Math 351 or Math 452/552).

Text:

Nelson, B.L., *Stochastic Modeling: Analysis and Simulation*, 2002, Dover.

Grades:

Course grades will be determined by these weights:

Homework 30%

Midterm exam 30%

Final exam 40%

The grading scale is (plus and minus grades may be assigned within each range)

90 - 100 % A

80 - 90 % B

70 - 80 % C

Homework:

Weekly homework sets are typically due at the beginning of the Thursday class period.

No late homework assignments will be accepted.

Course outline:

1. Introduction
2. Sample Paths
3. Basics
4. Simulation
5. Arrival-Counting Processes
6. Discrete-Time Processes
7. Continuous-Time Processes
8. Queueing Processes
9. Topics in Simulation of Stochastic Processes