

OR 542
Operations Research: Stochastic Models
Fall 2009

Instructor: Dr. Daliborka Stanojević
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Office Hours: Before or after class, or by appointment
Text: Operations Research: Applications and Algorithms (4th Ed.) by Winston

Description: The intent of this course is to provide a perspective on the analysis of systems that are stochastic in nature, that is, ones that have a random component. Prerequisites are knowledge of the fundamental elements of probability (no statistical inference is needed) and a general graduate-level maturity in applied mathematics. There will be a special emphasis on the numerical solution of problems using spreadsheet software.

<u>Topic</u>	<u>Assignment*</u>
Introduction and Review of Probability	Read Chapt.12
Decision Making Under Uncertainty	Read Chapt.13, § 1-4, 6
Deterministic Inventory Modeling	Read Chapt.15, § 1-7
Probabilistic Inventory Models	Read Chapt.16, § 1-6
Markov Chains	Read Chapt. 17, § 1-5
Queueing	Read Chapt. 20, § 1-11
Forecasting	Read Chapt. 24, § 1-6
Simulation	Read Chapt. 21, § 1-9
Grading:	
	Midterm 40%
	Final Exam 40%
	Homework <u>20%</u>
	100%