

Department of Computer Science
Computer Science 177: Modelling and Simulation

Instructor:

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Office Hours:

Wednesday, Friday: 1-2, or by appointment

Textbook:

Simulation Modeling and Analysis, McGraw-Hill

EITHER *third edition* (by Law and Kelton, © 2000) OR *fourth edition* (by Law, © 2008) IS ACCEPTABLE

I recommend purchasing the book online. For example, *amazon.com* has the third edition hard cover (ISBN 0-07-059292-6) for \$88, and the fourth edition soft cover (ISBN 0-07-125519-2) for \$93.

Grading Scheme:

Weekly Lab Exercises	15%
Other Programming Assignments	10%
Team Project	20%
Midterm	20%
Final exam (3 hours)	35%

Tentative Course Outline:

Lecture Topic	Textbook Readings (Third or Fourth Ed)	Supplementary Material
Introduction	1.1–1.3, 1.7–1.9, Appendix 1A	Simulation Notes 2.1–2.5
Constructing a Model	1.4–1.5, 2.2, (skim 2.4–2.7), 5.5	Simulation Notes 2.6, 2.8
CSIM Programming		Handout
Review of Probability and Statistics	4.1–4.4	
Confidence Intervals and Hypothesis Testing	4.5	
Selecting Input Distributions	6.1–6.6	
Random Number Generation	7.1–7.4, Appendix 7A, 8.1–8.3.2, 8.4	
Output Analysis	9.1–9.5.1, 9.6, 10.1–10.4.1	
Variance Reduction Techniques	11.1–11.5	