

Department of Computer Science
Computer Science 177: Modelling and Simulation

Instructor:

Professor Mart L. Molle
Engineering Building, Unit 2, Room 331
951-827-7354
mart@cs.ucr.edu

Office Hours:

Wednesday, Friday: 11-12, 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:

3 Programming Assignments	25%
2 Problem sets	15%
Midterm	20%
Final exam (3 hours)	40%

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	