

# BADM 793

## COURSE REQUIREMENTS

Instructor: Dr. Joan Donohue  
Office: BA 705  
Phone: 777-5924  
Office Hours: **MWF 1:30-3:30 p.m.**  
**TTh 12:00-2:00 p.m.**

**Course Information:** BADM 793, Section 001, TTh 2-3:15 p.m., Room 364

**Required Textbooks:** Introduction to Simulation and SLAM II, by Pritsker (3<sup>rd</sup> or 4<sup>th</sup> edition).  
Simulation Modeling and Analysis, by Law & Kelton (2<sup>nd</sup> edition).  
**Recommended Textbook:** Understanding FORTRAN 77, by Boillot (2<sup>nd</sup> edition).

### Course Objective:

To provide students with an in-depth understanding, both theoretical and applied, of the construction and use of simulation methods for business problems. By the end of the semester, students should be able to develop and carry out a meaningful simulation project. Students will learn to use the following computer software:

SLAMSYSTEM - a graphically-oriented simulation package for PCs  
SLAM II - the *network* version (within the unix environment)  
SLAM II - the *discrete event* version (FORTRAN-based; also in the unix environment)  
UNIFIT - a distribution-fitting software package for PCs  
SAS - a statistical analysis package (both PC and unix versions).

### Course Content:

Introduction to Simulation	Chapters 1, 3 (Pritsker) and 17 (4 <sup>th</sup> edition)
Network Simulation	Chapters 5, 6, 7 (front flap and Appendix B of Pritsker)
Network Control Statements	Chapter 8 (back flap and Appendix C of Pritsker)
Statistical Concepts	Chapter 4, 5, 6, 7, 8, 9, 10 (Law & Kelton)
Discrete Event Simulation	Chapters 11, 12 (Pritsker)

### Class Policies:

Please notify the instructor in ADVANCE if you will be missing a class. You will NOT be considered absent if you have a legitimate excuse for missing a class that you notified the instructor about AHEAD OF TIME.

No LATE tests, homework, or projects will be accepted!

### Grading Policy

A	90 - 100
B+	87 - 89
B	80 - 86
C+	77 - 79
C	70 - 76
D	60 - 69
F	Below 60

### Percentages of Final Grade

5%	Class Participation	
10%	Test #1	(Tuesday, February 21)
10%	Test #2	(Thursday, April 13)
10%	HW Assignments	(Assigned throughout the semester.)
15%	Midterm Project	(Due Thursday, March 30)
50%	Final Project	(Written report due Tuesday, May 2; Oral presentations the last week of class.)

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## SYLLABUS

### Simulation Methods in Business Systems

DATE		TOPIC	Reading
Tuesday	January 17	Introduction	Chapters 1, 3, 17 (Pritsker)
Thursday	January 19	"	"
Tuesday	January 22	Network Simulation	Chapter 5 (Pritsker)
Thursday	January 26	"	"
Tuesday	January 31	"	"
Thursday	February 2	"	"
Tuesday	February 7	"	Chapter 6 (Pritsker)
Thursday	February 9	"	"
Tuesday	February 14	"	Chapter 7 (Pritsker)
Thursday	February 16	"	"
Tuesday	February 21	<b>TEST #1</b>	
Thursday	February 23	Validation & Verification	Chapters 4, 5 (Law & Kelton)
Tuesday	February 28	Distribution Selection	Chapter 6 (Law & Kelton)
Thursday	March 2	Generating Random Numbers	Chapter 7 (Law & Kelton)
Tuesday	March 7	No Class (Spring Break)	
Thursday	March 9	No Class (Spring Break)	
Tuesday	March 14	Generating Stochastic Variables	Chapter 8 (Law & Kelton)
Thursday	March 16	Output Data Analysis	Chapters 9, 10 (Law & Kelton)
Tuesday	March 21	"	"
Thursday	March 23	"	"
Tuesday	March 28	Discrete Event Simulation	Chapter 11 (Pritsker)
Thursday	March 30	<b>MIDTERM PROJECT DUE</b>	"
Tuesday	April 4	Discrete Event Simulation	"
Thursday	April 6	"	Chapter 12 (Pritsker)
Tuesday	April 11	"	"
Thursday	April 13	<b>TEST #2</b>	
Tuesday	April 18	No Class (work on final projects)	
Thursday	April 20	No Class (work on final projects)	
Tuesday	April 25	Class Presentations	
Thursday	April 27	Class Presentations	
Tuesday	May 2	<b>FINAL PROJECT DUE</b>	