

## SYLLABUS

BU 354 Quantitative Methods in Management  
Chaminade University Fall 1998

Instructor: Barbara P. Street, Ph.d.

Office Hours: M.W.F. 1:00-2:00 or by appointment in Kieffer Hall Business Faculty  
Study, cubicle CC ph: 739-4609

Textbook: Quantitative Analysis for Management by B. Render and R. Stqair, 6th edl,  
Allyn and Bacon, 1997

### COURSE OBJECTIVES

The purpose of ~~theis~~ this course is to provide the student with the skills to apply various quantitative techniques to solve the types of problems that organizations and managers face in the real world. To acquire these skills, the student will need t study both the pertinent mathematical models and their assumptions and limitations, and learn how these models are utilized in computerized solutions.

### COURSE REQUIREMENTS

1. **Class attendance and participation** is imperative. Students must be present, pay attention, and take part in discussions in order to earn attendance points described in the grading section.

2. **Completing reading and written assignments on time is** necessary. Students can expect written work daily.

3. **Exams and quizzes must be taken as scheduled.** The lowest quiz grade may be dropped when the grades are calculated. NO Make-up quizzes will be given. Make-up mid-terms will only be given to those students who have informed Dr. Street BEFORE the exam was administered to the class.

### GRADING POLICY

Midterm Exam:	100 points
Quizzes (10 points /quiz)	100 points
Homework:(2 pts./problem)	100 points
Final Exam:	100 points
Attendance/Participation	100 points

A letter grade will be assigned based on the total **points** earned at the end of the course. Missed exams, quizzes, and homeworks will be given a grade of zero unless arrangements are made PRIOR to the date they are due. No quiz may be made up, brut the lowest quiz grade will bne dropped. Quizzes may be announced or unannounced. Exams and quizzes will be on a closed book basis; however, a 3x5 index card of formulas will be allowed for the mid-term and the final exams.

## COURSE OUTLINE

Date	Topic	Assignment
Aug 31	Introduction	
Sept 2	Quantitative Methods	Read Chap 1; be prepared to discuss ways quantitative analysis can be useful
Sept 9	Probability	Read Chap 2 Supplement : Turn In ques. #S <b>2-14</b> thru S 2-19
Sept 11	QUIZ Decision -making under Risk	Read Chap 2 to p 42: Turn In #2-10, 2-11, 2-16
Sept 14	Decision-making under Uncertainty	Read Chap 2 to p. 45: Turn In #2-8, 2-9, 2-12,2-13
Sept 16	Marginal Analysis	Read Chap 2 to end: Turn in #2-22, 2-23, 2-24
Sept 18	QUIZ Decision Trees	Read Chap 3 To p. 105; Turn in #3-12-3-15
Sept 21	Decisions and Imperfect Info	Read Chap 3 to p 110: Turn in #3-21, 3-36, 3-36, 3-37, 3-38
Sept 23	Decision Theory Applications	Read Chap 3 to end, <b>Turn in Case Study</b> , p132
Sept 25	Conclusion Decision Theory	
Sept 28	QUIZ Time Series Forecasting	Read Chap 5 to p. 191; Turn in #5-10 thru 5-16
Sept 30	Regression Analysis	Read Chap 5 to end; Turn in #5-31 thru 5-33
Oct 2	Conclusion Decision Theory	
Oct 5	QUIZ Linear Programming Models	Read Chap 7 to p. 291 Turn In FORMULATIONS for 7-9 thru 7-14
<b>Oct 7</b>	<b>Graphical LP solutions</b>	<b>Read Chap 7 to p 302</b> Turn in SOLUTIONS for 7-9 thru 7-14
Oct 9	Minimization, other LP	Read Chap 7 to end Turn in #7-15,7-18, 7-22,

Oct 12	Linear Programming Continued	
Oct 14	QUIZ LP Applications	Read Chap 8; Turn-in to be announced
Oct 16	LP Applications	
Oct 19	<b>MID-TERM EXAM</b>	
Oct 21	Intro to Simplex	Read Chap 9 to p 394; Turn in 9-15
Oct 23	Simplex continued	Turn in 9-16, 9-17
Oct 26	Surplus & Artificial Variables	Read Chap 9 to p 400;
Oct 28	QUIZ Minimization Problems	Read Chap 9 to p 409; Turn-in 9-19,
Oct 30	Complications in LP	Read Chap 9 to p 412; Turn in 9-20, 9-21
Nov 2	Sensitivity Analysis	Read Chap 9 to p. 417; Turn in 9-33, 9-34
Nov 4	The Dual	Read Chap 9 to end; Turn in 9-36, 9-37
Nov 6	QUIZ Inventory Control	Read Chap 6 to p 227; Turn in 6-17, 6-18
Nov 9	Economic Order Point	Read Chap 6 to p.233 Turn in 6-20, 6-22
Nov 11	Advanced Inventory	Read Chap 6 to p. 237 Turn in 6-21. 6-22
Nov 13	Quantity Discount	Read Chap 6 to p 241 Turn in 6-25, 6-33
Nov 16	QUIZ Shortages and Safety Stock	Read Chap 6 to p 247 Turn in 6-34, 6-39
Nov 18	Other Inventory Issues	Read Chap 6 to end Turn in 6-36,6-41
Nov 20	Network Models	

Nov 23	PERT/CPM Models	Reading a
Nov 25	PERT/COST	Written Assignments for Network
Nov 30	QUIZ CPM	Models to be given in class
Dec 2	Applications	
Dec 4	Queueing	Read Ch 14 to p659, Turn-in # 14-11, <del>14-12</del>
Dec 7	More Queueing	Read Ch 14 to end; Turn in # 14-18, 14-19, 14-21, 14-23
Dec 9	Review	

FINAL EXAM IS SCHEDULED FOR: **WED** ~~DEC~~ <sup>f</sup> to: 3\*