

Business Administration

Course Number: **BUAD 315**

Course Title: **MANAGEMENT SCIENCE**

Credits: **3**

Calendar Description: Management science is a discipline that aids decision-making by

Professors

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Learning Outcomes

Upon completion of this course students will be able to

- explain the scientific approach of how to apply systematic methodologies in solving managerial problems that guide decision making.
- identify and apply appropriate techniques for managing business problems and correctly interpret the results of analysis through critical thinking.
- recognize and explain specific problems including their components and assumptions and solve them using linear programming.
- use MS Excel to create quantitative models of management problems and insert appropriate statistical functions in Excel.
- solve typical problems using formulas and tables.

Course Objectives

This course will cover the following content: See weekly course schedule.

Evaluation Procedure

Assignments and Quizzes	20%
Mid-term Exam*	40%
Final Exam*	40%
Total	100%

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Course Schedule

Week	Date		
		Monday, Jan 11 - Classes Start Monday, Feb 15 – Family Day (no classes) Tuesday, Feb 16 to Friday, Feb 19 – Reading Break (no classes) Friday, Apr 16 – Last Day of Regular Classes	
1	Jan 12/13	Probability Distributions – Part 2 Self Study: Ch 3: Q 1, 3, 4, 9, 14, 18, 23, 24, 29, 30 (use EXCEL to solve)	Ch 3
2	Jan 19/20	Decision Analysis Self Study: Ch 4: 1, 3, 7, 8 (a & b), 14, 16 (use MS or Excel to solve)	Ch 4
3	Jan 26/27	Introduction to Forecasting Self Study: Ch 6: 5(b, c&d), 7, 8, 9(a), 13(b&c), 17(b&c) (use MS or Excel to solve)	Ch 6
4	Feb 2/3	Introduction to Linear Programming (LP) Self Study: Ch 7: 2, 7 by hand Ch 7: 13, 14, 31, 35, 42, 43 (use MS to solve)	Ch 7
5	Feb 9/10	LP Sensitivity Analysis Self Study: Ch 8: 1, 2, 5, 6, 10, 12, 13 (use MS to solve)	Ch 8
	Feb 16/17	Reading Break (<i>no classes</i>)	
6	Feb 23/24	MIDTERM EXAM (Chapters 3, 4, 6, 7, 8)	
7	Mar 2/3	Distribution and Network Models Self Study: Ch 10: 1, 2, 6, 9, 17 (use MS to solve)	Ch 10
8	Mar 9/10	Integer Linear Programming Self Study: Ch 11: 2, 7a–7c (use MS to solve)	Ch 11
9	Mar 16/17	Project Management Self Study: Ch 13: 3, 6, 10, 13, 21 (use MS to solve)	Ch 13
10	Mar 23/24	Waiting Line Models Self Study: Ch 15: 5, 11, 18, 21, 24, 27, 30, 34	

