

King Fahd University of Petroleum and Minerals

Department of Mathematical Sciences

Syllabus of Math 131 (Finite Mathematics)

Term: 052: February 12 – June 10, 2006

(Course Coordinator: Dr. Raja Mohammad Latif)

Textbook: *Introductory Mathematical Analysis for Business, Economics, and the life and Social Sciences*, by Ernest F. Haeussler, Jr. Richard S. Paul, & R. J. Wood, 11th Ed. (2005).

(Supplementary notes: *Mathematics with Applications*, by Lial & Hungerford, 7th Ed. 1999).

Week	Dates	Section	Material	Homework
1	Feb.12 – 15 + Feb. 16* Thursday*	1.1	Applications of Equations	4,12,16,20, 28, 33, 36, 43
		1.3	Applications of Inequalities	2, 4, 6, 7, 9, 10, 12
		3.1	Lines (Review)	12, 32, 58, 64, 71, 69, 71
2	February 18 - 22	3.2	Applications and Linear Function	16, 17, 18, 20, 24, 26, 31
		3.3	Quadratic Functions	27, 29, 31, 34, 36, 39, 40
		3.4	Systems of Linear Equations	26, 28, 29, 34, 37, 39, 41
3	Feb. 25 - March 01	3.5	Nonlinear Systems	6, 9, 12, 14, 15, 16
		3.6	Applications of Systems of Eqns.	8, 15, 17, 18, 19, 20, 25
4	March 04 - 08	7.1	Linear Inequalities in Two Var.	16, 18, 20, 22, 24, 28, 29
		7.2	Linear Programming	10, 13, 14, 15, 16, 17, 18
		7.3	Multiple Optimum Solutions	1, 2, 3, 4
5	March 11 - 15	6.4	Reduction in Matrix Algebra	17, 23, 27, 29, 30, 31, 32
		6.5	Reduction in Matrix Algebra	8, 10, 12, 19, 21, 24
		7.4	The Simplex Method	5, 8, 12, 16, 17, 18, 19
Exam	March 15	Wed.	Major Exam I	Time & Location: TBA
6	March 18 – 22	7.8 [^]	The dual ([^] Exclude Example 3)	4, 10, 12, 13, 14, 15, 17
		5.1	Compound Interest	8,10, 12, 18, 19, 23. 24, 26
		5.2	Present Value	4, 8, 10, 11, 14, 16, 21
7	March 25- 29	10.3	Interest Compounded Continuous	5, 10, 12, 14, 16, 19, 20
		5.3	Annuities	16, 18, 22, 24, 26, 28, 29
Midterm Break: Saturday – Sunday, April 01 – 02, 2006				
8	April 03 – 05	8.1	Basic Counting Principle	6, 8, 10, 22, 25, 26,
		8.1	& Permutations	29, 32, 35, 36, 38, 40
9	April 08 – 12	8.2	Comb and Oth. Counting Prin.	10,14, 18, 23, 25,26, 30,33
		8.3	Sample Spaces and Events	3, 6, 9, 14, 22, 26, 28, 29
10	April 15 – 19	8.4	Probability	4,10,16,19,21,23,24,27, 31
		8.5	Conditional Probability	2, 9, 12, 14, 16, 17, 23, 24,
Exam	April 19	Wed.	Major Exam II	Time & Location: TBA
11	April 22 - 26	8.5	Conditional Probability (Cntd.)	26, 36, 37, 39, 41, 49, 51
		8.6	Independent Event	2,7,13,20,23,25,27,29,31,35,36
12	April 29 – May 03	9.1	Dis. Rand. Var. & Exp. Value	4, 5, 9, 11, 15, 16, 18, 20
		9.2	The Binomial Distribution	4, 5, 10, 12, 17,
13	May 06 - May 10	9.2	The Binomial Distribution (Cntd.)	19, 20, 23, 25, 26
		16.2	The Normal Distribution	2, 10, 14, 17, 19, 20, 21
14	May 13 - May 17	16.3	Normal Approx. to Bin. Dist.	1, 3, 5, 6, 7, 8, 9, 10
		Sup. 11.1	Frequency Distributions; Measures of Central Tendency	2, 4, 9, 11, 13, 15, 20, 22, 23, 25, 27, 35, 37, 39, 43, 44
15	May 20 – 24, May 27 - 28	Sup. 11.2	Measures of Variation	5, 8, 10, 12, 13,
			Review & Catch Up	24, 25, 26, 33, 36

**Final Exam (Comprehensive) date will be announced later on by the Registrar Office.
DN grade will be enforced from Nine unexcused absences according to the KFUPM policy.**