

**King Fahd University of Petroleum and Minerals**  
**Department of Mathematical Sciences**  
Syllabus of Math 131 (061)

**Course # :** Math 131

**Title:** Finite Mathematics

**Textbook:** *Introductory Mathematical Analysis for Business, Economics, and the life and Social Sciences*, by Ernest F. Haeussler, Jr. & Richard S. Paul, 11<sup>th</sup> ed. (2004). (Supplementary notes from *Mathematics with Applications*, by Lial & Hungerford.)

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**Office Hours:** SMW: 11:00 pm – 11:50 pm, 12:10 – 1:00

<b>Activity (Tentative)</b>	<b>Weight</b>
<b>Class Work</b>	
Homework	8%
Attendance	4%
<b>Exam 1</b> (1.1 -1.3, 3.1- 3.5, 7.1 - 7.3) <b>AOB 3:00 pm – 4:15 pm, Tuesday 10/10/2006</b>	16%
<b>Exam 2</b> (6.4-6.5, 7.4, 7.8, 5.1-5.3, 10.3) <b>AOB 6:00 pm – 7:15 pm, Tuesday 7/11/2006</b>	16%
<b>Exam 3</b> (8.1-8.6 , Supplem-Notes 11.1-11.2) <b>AOB 6:00 pm – 7:15 pm, Tuesday 12/12/2006</b>	16%
<b>Final Exam</b> (Comprehensive) <b>TBA: 7:30 am , Saturday 20/1/2007</b>	40%

Week	Date	Section	Material	Homework
1	Sept. 9-14	1.1	Applications of Equations	12,16,33,36
		1.3	Applications of Inequalities	4,9,10
		3.1	Lines (Review)	12,14,56,58,72
		3.2	Applications and Linear Functions	16,17,18,20,24
2	Sept. 16-20	3.3	Quadratic Functions (Review)	25,28,30,33
		3.4	Systems of Linear Equations	10,16,25,34
		3.5	Nonlinear Systems	6,10,12
<b>Saturday, Sept. 23: National Holiday</b>				
3	Sept. 24-27	3.6	Applications of Systems of Equations	5,15,18,20
		7.1	Linear Inequalities in Two Variables	2,4,10,20
4	Sept. 30 – Oct. 4	7.2	Linear Programming	3,6,16,18
		7.3	Multiple Optimum Solutions	2,4
		6.4-6.5	Reduction in Matrix Algebra	<b>6.5:</b> 8,10,21,24
5	Oct. 7-11	7.4	The Simplex Method	4,8,16,17,19
		7.8 <sup>^</sup>	The dual	4,10,12
<b>Oct 12 – 27: Eid Al-Fitr Vacation</b>				
6	Oct. 28- Nov. 1	5.1	Compound Interest	2,10,12,20
		10.3	Interest Compounded Continuously	2,6,10,12
		5.2	Present Value	2,4,6,11
7	Nov. 4 - 8	5.3	Annuities	16,18,22,24,26
8	Nov. 11-15	8.1	Basic Counting Principle and Permutations	5,14,21,36
		8.2	Comb and Other Counting Principles	2,5,11,33
9	Nov. 18-22	8.3	Sample Spaces and Events	2,8,22,29
		8.4	Probability	4,10,18,24
10	Nov. 25 -29	8.4	Probability (cont.)	
		8.5	Cond. Prob. and Stoc./ Proc.	2,9,12,38
11	Dec. 2 - 6	8.6	Independent Event	2,7,15,25
		Supplem-Note	Frequency Distributions; Measures of Central tendency	<b>11.1:</b> 1,20,35, 39,45
12	Dec. 9 - 13	Supplem-Note	Measures of Variations	<b>11.2:</b> 2,7,24,26
13	Jan. 16-20	9.1	Discrete Rand. Var. and Exp. Variables	5,9,15,18
		9.2	The Binomial Distribution	4,10,15,20
<b>Dec.21 – Jan.5: Eid Al-Adha Vacation</b>				
14	Jan. 6 -10	9.2	The Binomial Distribution (cont.)	
		16.2	The Normal Distribution	2,8,9,20,22
15	Jan. 13 - 17	16.2	The Normal Distribution (cont.) Review and catch-up	-

\*KFUPM policy with respect to attendance will be enforced.

\*Final exam: To be announced later (Comprehensive).

\*DN policy will be adopted according to KFUPM regulations (from 9 absences)

<sup>^</sup> Exclude Example 3 from Section 7.8