

**King Fahd University of Petroleum and Minerals**  
**Department of Mathematical Sciences**  
 Syllabus of Math 131 (073)

**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:** SUMTW 12:15 – 01:00 and also by appointment

Week	Date	Section	Material	Homework
1	July 05 – 09	1.1	Applications of Equations	4,12,16,25,34,36
		1.3	Applications of Inequalities	1,2, 4,6, 7, 9, 10
		3.1	Lines (Review)	12, 14,56,58, 72
		3.2	Applications and Linear Functions	16,17,18,20,24
		3.3	Quadratic Functions (Review)	19,27,29,30,33
2	July 12 – 16	3.4	Systems of Linear Equations	10,16,25,34
		3.5	Nonlinear Systems	7, 9, 12,14,16
		3.6	Applications of Systems of Eqns.	5,8,15,17,19,20
		7.1	Linear Inequalities in Two Var.	2, 4, 10, 20,24
3	July 19 – 23	7.2	Linear Programming	3, 6, 12,16, 17, 18
		7.3	Multiple Optimum Solutions	2,4
		6.4	Reduction in Matrix Algebra	2, 11, 13,17,21
		6.5	Reduction in Matrix Algebra	6, 8, 10, 12, 21, 24
4	July 26 – 30	7.4	The Simplex Method	4,8,14,16,17,19
		7.8 <sup>^</sup>	The dual	4, 6, 10, 12,14
		5.1	Compound Interest	2,10, 12, 18, 20
		5.2	Present Value	4, 8, 10, 11, 14,
5	Aug. 02 – 06	10.3	Interest Compounded Continuously	2,6, 10, 12, 14, 16
		5.3	Annuities	16,18,22,24,26
		8.1	Basic Counting Principle and Perm	4, 5,14,21,36
		8.2	Comb and Other Counting Prin.	2,5,11,33
6	Aug. 09 – 13	8.3	Sample Spaces and Events	2,8,22,29
		8.4	Probability	4,10,18,24
		8.5	Conditional Probability	2,9,12,38
		8.6	Independent Event	2,7,15,25
7	Aug. 16 – 20	9.1	Discrete Rand. Var. and Exp. Value	2,10,12,20
		9.2	The Binomial Distribution	2,6,10,12
		16.2	The Normal Distribution	2,4,6,11
8	Aug. 23-25	Sup. 11.1	Frequency Distributions;	16,18,22,24,26
		Pg:506-516	Measures of Central Tendency	1,20,35, 39,45
		Sup. 11.2 Pg:516-525	Measures of Variation	2,7,24,26

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

The students are strongly urged to solve much more problems than the homework listed above.

Day/Time	Saturday	Sunday	Monday	Tuesday	Wednesday
<b>09:20-10:20</b>	Math 131-02 Bldg 5 - Rm 104	Math 131-02 Bldg 5 - Rm 104	Math 131-02 Bldg 5 - Rm 104	Math 131-02 Bldg 5 - Rm 104	Math 131-02 Bldg 5 - Rm 104
<b>10:30-11:30</b>	Math 201- 06 Bldg59-Rm 1005	Math 201- 06 Bldg59-Rm 1005	Math 201- 06 Bldg59-Rm 1005	Math 201- 06 Bldg59-Rm 1005	Math 201- 06 Bldg59-Rm 1005
<b>12:15-01:00</b>	Office Hour Bldg 5-Rm 420	Office Hour Bldg 5-Rm 420	Office Hour Bldg 5 -Rm 420	Office Hour Bldg 5-Rm 420	Office Hour Bldg5 -Rm 420