

King Fahd University of Petroleum and Minerals  
Department of Mathematics and Statistics  
**Syllabus: Math 131**  
**Finite Mathematics**  
Semester 131

Major Exam 1: 25%, Major Exam 2: 25%, Classwork: 15%, Final Exam: 35%.

Classwork: Homework = 6%, Quizzes=6%, Attendance=3%

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Exam Dates: To be announced.

Section numbers refer to the textbook:

*Introductory Mathematical Analysis 13e* by Haeussler, Paul, & Wood; (Pearson 2011).

Week	Section	Topic	Homework
1	1.1	Applications of Equations	4, 12, 16, 20, 25, 28, 33, 36, 40, 43
	1.2	Applications of Inequalities	1, 2, 3, 4, 5, 6, 7, 9, 10, 12
	3.1	Lines (review)	12, 32, 58, 64, 66, 67, 69, 71, 72
2	3.2	Applications and Linear Functions	16, 17, 18, 20, 24, 25, 26, 27, 31
	3.3	Quadratic Functions	27, 29, 30, 31, 32, 34, 36, 37, 39, 40
	3.4	Systems of Linear Equations	26, 28, 29, 30, 34, 37, 38, 39, 40, 41
3	3.5	Nonlinear Systems	4, 6, 7, 9, 11, 12, 13, 14, 15, 16
	3.6	Applications of Systems of Eqns	7, 8, 15, 16, 17, 18, 19, 20, 21, 22, 25
4	7.1	Lin. Inequalities in Two Vars.	16, 18, 20, 21, 22, 24, 27, 28, 29
	7.2	Linear Programming	4, 10, 13, 14, 15, 16, 17, 18, 19
	7.1	Multiple Optimal Solutions	1, 2, 3, 4
5	6.4	Reduction in Matrix Algebra	17, 23, 25, 27, 28, 29, 30, 31, 32, 33
	6.5	continued	2, 4, 6, 8, 9, 10, 12, 19, 21, 23, 24
	7.4	The Simplex Method	5, 8, 12, 13, 14, 15, 16, 17, 18, 19
<b>Exam 1</b>			
6	7.8	The Dual	3, 4, 5, 6, 7, 8, 9, 10, 13, 14, 15, 17
	5.1	Compound Interest	8, 10, 11, 13, 18, 19, 21, 23, 24, 25, 26
	5.2	Present Value	8, 10, 11, 14, 16, 17, 18, 19, 21, 22, 24
7	5.3	Interest Compounded Continuously	3, 7, 9, 10, 12, 14, 15, 16, 18, 19, 20
	5.4	Annuities	15, 17, 22, 24, 26, 27, 28, 29, 30, 34
8	8.1	Basic Counting Principles and Permutations	3, 4, 6, 7, 8, 10, 19, 22, 25, 26, 27 28, 29, 30, 32, 35, 36, 37, 38, 40, 42
9	8.2	Combinations and other counting principles	10, 11, 14, 15, 18, 20, 23, 24, 25, 26 27, 28, 29, 30, 31, 32, 33, 34, 37, 38
	8.3	Sample Spaces and Events	3, 6, 9, 14, 22, 26, 27, 28, 29, 31, 32
<b>Exam 2</b>			
10	8.4	Probability	4, 6, 10, 12, 15, 16, 18, 19, 21 23, 24, 26, 27, 29, 31, 32, 33, 34
	8.5	Conditional Probability	2, 9, 11, 12, 13, 14, 16, 17, 23, 24, 26
11	8.5	Conditional Probability (cont)	36, 37, 39, 40, 41, 42, 44, 48, 49, 50, 51
	8.6	Independent Events	2, 4, 7, 8, 9, 13, 14, 20, 23, 24, 25 27, 28, 29, 30, 31, 32, 33, 35, 36
12	9.1	Discrete Random Variables and Expected Value	3, 4, 5, 6, 9, 11, 12, 13, 15, 16, 18, 20
	9.2	The Binomial Distribution	4, 5, 11, 12, 13, 16, 17, 19
13	9.2	The Binomial Distribution (cont.)	20, 21, 22, 23, 24, 25, 26
14	16.1	Continuous Random Variables	1, 3, 7, 10, 11, 13
	16.2	The Normal Distribution	2, 10, 14, 16, 17, 18, 19, 20, 21, 22
15	16.3	The Normal Approximation to Binomial Review	1, 2, 3, 4, 9, 10, 11, 12