King Fahd University of Petroleum and Minerals Department of Mathematics and Statistics

Math 131-Finite Mathematics

Syllabus - Summer 2014 (Term 133)

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Textbook: Introductory Mathematical Analysis for Business, Economics, and the life and Social Sciences, by Ernest F. Haeussler, Richard S. Paul, and Richard J. Wood, 13th edition.

Week	Date	Sec.	Material	Selected Problems
1	08/6 - 12/6	1.1	Applications of Equations	1 ,4, 12 , 16 ,20,25, 33 , 36 ,43
		1.3	Applications of Inequalities	1,2, 4, 5,6,7, 9,10,11 ,12
		3.1	Lines (Review)	12,14,32,56,58,64,66,67,69,71,72
		3.2	Applications and Linear Functions	16,17,18,20,24 ,25,26,31
		3.3	Quadratic Functions (Review)	18,25,26,27,28,2930,31,33, 34,36,39,40
2	15/6 - 19/6 Monday Quiz 1 $1.1 \rightarrow 3.5$	3.4	Systems of Linear Equations	10,16,25, 26,28,29, 34 ,37,38,39,41
		3.5	Nonlinear Systems	4, 6 ,7,9, 10,12 ,13,14,15,16
		3.6	Applications of Systems of Eqns.	5, 7,8, 15, 16,17, 18, 19, 20 ,21,25
		7.1	Linear Inequalities in Two Var.	2,4,10, 16,18, 20 ,21,22,24,28,29
		7.2	Linear Programming	3, 4, 6 ,10, 12 ,13,14, 15 ,16,17,18
3	$22/6 - 26/6$ Monday Quiz 2 $3.6 \rightarrow 7.3$	7.3	Multiple Optimum Solutions	1,2,3,4
		6.4	Solving Systems by Reduction	17,23,25,27,28,29,30,31,32
		6.5	Solving Systems by Reduction	4,6,8,10,12,19,21,22,24
		7.4	The Simplex Method	4, 5, 8, 12,14, 16,17, 18, 19
		7.8	The dual (Example 3 excluded)	4, 6, 9,10,12,13 ,14,15,17
4	29/6 - 03/7	5.1	Compound Interest	2, 8, 10,12, 18,19, 20 ,23,24,26
	Monday	5.2	Present Value	2,4,6, 8,10, 11,14,16 ,17,18,19,21,22,24
	Quiz 3	5.3	Interest Compounded Continuously	2, 5, 6,10,12 ,14,16,19,20
	7.4 - 7.8	5.4	Annuities	8,10,14,16,18,20, 23,24,25
5	06/7 - 10/7	8.1	Basic Counting Principle and Perm.	4,6,8,10,14,20,21,22,23,29,30,31,32,,36,,39,41
	Monday	8.2	Combinations. Other Count. Princip.	2,5, 10, 11, 14,15, 17,18,23,27, 28,30,31, 33 ,34,35
	Quiz 4	8.3	Sample Spaces and Events	2, 3,6, 7,8 ,9,14, 22 ,26,27,28, 29,30
	$5.1 \rightarrow 5.4$			
6	13/7 – 17/7	8.4	Probability	4,10, 16, 18, 19,21,23, 24 ,27,29,31,32
	Monday	8.5	Cond. Prob. and Stoc. Proc.	2,9, 11, 12, 14,16,17,23,24,26,36,37, 38 ,39,49,51
	Quiz 5	8.6	Independent Event	2, 4, 7, 8,13,14, 15, 20,23, 25 ,27,28,29,31,32,35,36
	8.1 → 8.4		Ramadan Break	
7	03/8 -07/8 Monday	11.1	1	1 ,2,4,9,11,13,15, 20 ,22,23,25,35, 36 ,37, 39 ,43, 45
	Quiz 6	11.2 9.1	Meas. of Variations (Suppl. Notes) Discrete Rand. Var. and Exp. Value	2,5,7,8 ,10,12,13, 24,26 ,33,36 3,4, 5,6,9, 11,12,13, 15, 16, 18 ,20
	$8.5 \rightarrow 11.2$	9.1	Discrete Rand. var. and Exp. value	<i>3</i> ,4, 3 ,0, 7 ,11,12,13, 13 ,10, 10 ,20
8	10/8 - 12/8	9.2	The Binomial Distribution	4, 5, 10, 12,13, 15, 16, 17, 19, 20, 21, 22,23, 24, 25,26
		16.2	The Normal Distribution	2,8,9, 10,14,16,17,18,19, 20, 21, 22
		10.2	The round Distribution	

Grading Policy:

Six Quizzes = 20% / Duration = 20 minutes each Exam 1 (Essay) = 20% / Duration = 90 minutes / Wed. June 25th at 04:00 p.m. B. 54 / Sections: $1.1 \rightarrow 6.5$ Exam 2 (Essay) = 20% / Duration = 90 minutes / Mon. July 14th at 09:30 p.m. B. 54 / Sections: $7.4 \rightarrow 8.4$ Final Exam (MC)= 40% / Duration = 150 minutes / Wed. August 13th at 07:00 p.m. B. 54 / Comprehensive

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

* The questions of the quizzes and exams are based on the examples, homework, and the problems of the textbook.

* **No makeup** quiz or exam will be given under any circumstance. If a student misses a quiz or exam for a legitimate reason (e.g., <u>medical emergencies</u>), his final grade will be determined based on the non-missed quizzes and exams.