

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
DEPARTMENT OF MATHEMATICS & STATISTICS
(Term 173)
Math 105: FINITE MATHEMATICS
SYLLABUS

Instructor: Prof. Bilal Chanane

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Office Hours: UTR 12:15 pm 13:30 pm in Room 5-431 and by Appointment

Textbook: E. Haeussler, R. Paul, & R. Wood, *Introductory Mathematical Analysis for Business, Economics, and the life and Social Sciences* (13 Ed.), Pearson, 2014.

Course Descriptions:

Linear equations and inequalities. Systems of linear equations. Basic material on matrices. Elementary Introduction to linear programming. Counting techniques. Permutations and combinations. Probability for finite Sample space. Basic concepts in statistics. Topics in mathematics of finance.

Assessment for this course is described in the following table

Activity	Weight
4 quizzes	12%
Exam I	20%
Exam II	20%
Final Exam (Comprehensive)	35%
Paper based and Online HW	10%
Attendance	3%

Note that the content of each quiz/exam will be the content covered since the last quiz/exam.

*** No makeup test will be given under any circumstance. If a student misses a test for a legitimate reason (e.g., medical emergency), his final grade will be determined based on the non-missed tests.**

Grade Assignment

Score	92-100	86-92	80-86	74-80	68-74	62-68	56-62	50-56	50-
Grade	A+	A	B+	B	C+	C	D+	D	F

COVERAGE

Week #	Sections	Topics	Homework Problems
Week 1 (June 24-28)	1.1 1.3	Applications of Equations Applications of Inequalities	4,12,16,20, 28, 33, 36, 43 2, 4, 6, 7, 9, 10, 12
	3.1 3.2 3.3	Lines (Review) Applications and Linear Functions Quadratic Functions	12, 32, 58, 64, 69, 71. 16, 17, 18, 20, 24, 26, 31. 27, 29, 31, 34, 36, 39, 40.
	3.4 3.5 3.6	Systems of Linear Equations Nonlinear Systems Applications of Systems of Equations	26, 28, 29, 34, 37, 39, 41. 6, 9, 12, 14, 15, 16. 8, 15, 17, 18, 19, 20, 25.
Week 2 (July 1-5) plus June 30 (Normal Monday Class) QUIZ No. 1 (Tuesday)	6.4 6.5	Solving Systems by Reductions Solving Systems by Reductions (continued)	17, 23, 27, 29, 30, 31, 32. 6, 8, 10, 12, 19, 21, 24.
	7.1 7.2	Linear Inequalities in Two Variables Linear Programming	16, 18, 20, 22, 24, 28, 29. 10, 13, 14, 15, 16, 17, 18.
	7.3 7.4	Multiple Optimum Solutions The Simplex Method	1, 2, 3, 4. 5, 8, 12, 16, 17, 18, 19.
	7.8	The Dual (Exclude Example 3)	4, 10, 12, 13, 14, 15, 17.
Week 3 (July 8-12) QUIZ No. 2 (Tuesday) MAJOR EXAM No. 1	5.1 5.2	Compound Interest Present Value	8, 10, 12, 18, 19, 23, 24, 26. 4, 8, 10, 11, 14, 16, 21.
	5.3 5.4	Interest Compounded Continuously Annuities	5, 10, 12, 14, 16, 19, 20. 16, 18, 22, 24, 26, 28, 29.
	8.1 8.2	Basic Counting Principle and Permutations Combinations and Other Counting Principles	6, 8, 10, 22, 25, 26, 29, 32, 35, 36, 38, 40. 10, 14, 18, 23, 25, 26, 30, 33,
Week 4 (July 15-19) QUIZ No. 3 (Tuesday)	8.3 8.4	Sample Spaces and Events Probability	3, 6, 3, 6, 9, 14, 22, 26, 28, 29. 4, 10, 16, 19, 21, 23, 24, 27, 31.
	8.5 8.6	Conditional Probability Independent Events	2, 10, 14, 17, 23, 26, 37, 41, 47. 1, 6, 20, 23, 25, 27, 31, 32, 35,
Week 5 (July 22-26) MAJOR EXAM No. 2	9.1 9.2	Discrete Random Variables and Expected Value The Binomial Distribution	2, 5, 9, 11, 15, 16, 18, 21. 4, 5, 10, 11, 17, 23, 25, 26.
	16.2	The Normal Distribution	2, 5, 8, 10, 14, 17, 19, 20.
Week 6 (July 29-August 2) QUIZ No. 4 (Tuesday)	Suppl. Material	Frequency Distributions Measures of Central Tendency Measures of Variation	
Week 7 (August 5-12)		Review and catch-up	
Final Exam (as posted on Registrar Website)			

Important Dates:

30 JUNE

01 JULY

12 JULY

26 JULY

*Normal Monday Class

Last day for dropping course(s) without permanent record

Last day for dropping course(s) with grade of W

Last day for withdrawal from all courses with grade of W