COURSE OUTLINE FOR TSCHRITTER'S MATH 109

Text: Finite Mathematics
Fifth Edition
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CHAPTER 1 : FUNCTIONS AND LINES

#	Text	Time	
1	1.1,1.2	1	Functions, graphs and lines
2	1.3	1-	Mathematical Models and applications of linear functions

CHAPTER 2 ; LINEAR SYSTEMS

#	Text	Time	
3	2.1	1.5+	Systems of two equations
4	2.2	2.5-	Systems of three variables; Matrices
5	2.3	4- -	Gauss-Jordan method for general systems
		TAKE-HOME TEST H1	
6	2.4	.5	Matrix Operations
7	2.5	.5++	Multiplication of matrices
8	2.6	2 - -	Inverse of a Matrix
9	2.7	1+	Leontief Input – Output Model
		1	TUTORIAL
		1	TEST # 1 , Lessons 1 to 9

CHAPTER 3 : LINEAR PROGRAMMING

#	Text	Time	
10	3.1	.5	Linear Inequalities in two variables
11	3.2	.5	Systems of inequalities, a geometric picture
12	3.3	1+++	Linear Programming: a geometric approach

CHAPTER 4 : LINEAR PROGRAMMING: THE SIMPLEX METHOD

#	Text	Time	
13	4.1	1 - -	setting up Simplex Method
14	4.2	2 - -	Simplex Method
15	4.4	1+	Mixed Constraints
16	4.5	1	Multiple, Unbounded, and no solutions

CHAPTER 6 : SETS AND COUNTING

#	Text	Time	
17	6.1	.5++	Sets
18	6.2	.5++	Counting Elements in a Subset Using Venn diagrams
19	6.3	2 - -	Basic Counting Principles
		TAKE HOME TEST H2	
20	6.4	1 - -	Permutations
21	6.5	1	Combinations
22	6.6	1	a Mixture of Counting problems
		TUTORIAL	
		1	TEST #2 , LESSONS 10 to 22

CHAPTER 7 + SECTION 8.6(PROBABILITY)

#	Text	Time	
23	7.1	1 - -	introduction to Probability
24	7.2	1 - -	Equally Likely Events
25	7.3	1+	Compound Events: union, intersection, & complement
26	7.4	2	Conditional Probabilty
27	7.5	1+	Independent Events
28	7.6	1	Baye's Rule
29	8.6	1	Binomial Distribution
30	7.7	2 - -	Markov Chains

TAKE – HOME TEST H 3

CHAPTER 10 : LOGIC

#	Text	Time	
31	10.1	1 -	Statements
32	10.2	1++	Conditional Statements
33	10.3	1- -	Equivalent Statements
34	10.4	1+	Valid Arguments
		1	TUTORIAL
		1	TEST # 3 , LESSONS 23 to 34

CHAPTER 8 : STATISTICS

#	Text	Time	
35	8.1	1+	Frequency distributions
36	8.2	1 -	Measures of Central Tendency
37	8.3	2	Dispersion: Range, Variance & Standard Deviation
38	8.4	1-	Random variables & Probabilty distributions of Discrete Random Variables
39	8.5	1--	Expected Value
40	8.7	1+++	Normal Distribution
41	8.7	1	Using Normal distribution to approximate Binomial distribution

TAKE-HOME TEST H4

CHAPTER 5 : MATHEMATICS OF FINANCE

#	Text	Time	
42	5.2	1	Compound Interest
43	5.3-5.4	2 - -	Annuities
			TUTORIAL
		1	TEST 4 , LESSONS 35 to 43

3 ? REVIEW

Length of Semester = 68 hours