

**Math 204 MATHEMATICS FOR BUSINESS ANALYSIS I
FALL 2007**

SECTION	TIME	DAYS	ROOM
009	3:00 – 5:00 pm	M W	Swart 3

INSTRUCTOR: Dr. Chitra Gunawardena

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OFFICE HOURS: 5:00 – 6:00 pm MW and by appointment.

TEXT: *Finite Mathematics for Business, Economics, Life Sciences and Social Sciences*, 11th edition by Raymond A. Barnett, Michael R. Ziegler and Karl E. Byleen

CALCULATORS, COMPUTERS AND ELECTRONIC DEVICES:

Graphing calculators are welcome in the class room. Please note however, that you are **not allowed to use any kind of technology** other than the **approved** calculators (TI 83/ TI 83Plus/TI84/TI84Plus) during tests and quizzes. That means use of any electronic equipment **not** approved by your instructor while taking a test will be considered cheating and appropriate action will be taken. **All cellular phones, pagers and other electronic equipment should be turned off and put away during the class period.**

EXAMS: There will be four examinations:

EXAM	TOPICS	DATE
Exam 1	Chapters 1,2	October 1, 2007
Exam 2	Chapter 3	October 15, 2007
Exam 3	Chapters 4,5	November 7, 2007
Exam 4	Chapters 7,8,11	December 12, 2007

Make-up exams will not be given except when the student has a valid reason for the absence.

PRE & POST TESTS: There will be a **pre-test** on **September 10** and a **post-test** on **November 19**. These tests are for assessment purposes. **The tests are required and for each test missed the student's highest quiz score will be dropped.**

QUIZZES: There will be quizzes throughout the semester. There will be **NO** make-ups on quizzes.

HOMEWORK: Problems from the text will be assigned each day. While the solutions to assigned problems will not be collected, you should do the problems in order to learn the proper application of the techniques and concepts covered in the text.

GRADING PERCENTAGE:

Exams 1-4	20%
Quizzes	20%

While attendance is not required, it is important that you attend class and take part in class activities.

GRADING SCALE:

POINTS	GRADE	POINTS	GRADE
90 – 100	A	58 - 65	C
82 – 89	AB	50 - 57	D
74 – 81	B	0 - 49	F
66 – 73	BC		

GENERAL GOALS AND OBJECTIVE FOR THE COURSE:

- Identify the basic graphs and properties of polynomial, rational, exponential, and logarithmic functions. Apply the knowledge of functions to business applications such as simple, compound or continuous compound interest, ordinary annuities, finding the maximum or minimum for quantities which are quadratic functions, and finding break even points.
- Perform basic operations with matrices, and use matrix methods to solve systems of linear equations. Apply the knowledge of matrices to business problems such as inventory, production, and total cost.
- Use geometric method to solve linear programming problems. Interpret information as an objective function with constraints, set up the linear programming problem, solve the problem and interpret the result in the context of the problem.
- Use basic counting techniques and calculate probabilities, including conditional probabilities. Apply the mathematical knowledge of probability to business problems and interpret the results.
- Represent data with graphical and numerical summaries. Calculate probabilities for binomial and normal distributions. Apply the statistical skills to problems in various business settings and interpret the results.

COURSE DESCRIPTION: The first course in mathematics for business students is divided into five parts: Functions, Mathematics of Finance, Systems of Linear Equations and Matrices, Linear Programming, Probability and Statistics. The course will cover most of the material in Chapters 1-8 of the text. The course will cover the following topics.

- **Functions:** Linear, quadratic, rational, exponential and logarithmic function. Transformation of functions and graphing.
- **Mathematics of Finance:** Simple and compound interest, future value and present value of annuities, sinking funds, and amortization.
- **Systems of Linear Equations and Matrices:** Solution of systems of linear equations by graphing, substitution, elimination by addition, Gauss-Jordan elimination and use of matrix inverse. The systems of equations considered will have a unique solution, no solution or an infinite number of solutions.
- **Linear Programming:** Systems of linear inequalities in two variables, geometric approach to solving linear programming problems in two variables.
- **Probability and Statistics:** Operations on sets, counting techniques including permutations and combination, basic properties of probability, conditional probability, Bayes formula, random variables and expected values. Graphical description and numerical summaries of data. Binomial distribution and normal distribution.

DAY	PROBLEMS	DAY	PROBLEMS
		SEPT. 5	SEC 1-2: 41,43,47,49,51,57,59,61, 63,65, 75
SEPT. 10 PRE-TEST	SEC 1-3: 3,5,9,15,17	SEPT. 12 QUIZ 1	SEC 2.1: 41,43,47,49,51,57,59,61,63,65,75
SEPT. 17	SEC 2-2: 45, 47,65, 67 SEC 2-3: 9,15,17,23,25,	SEPT. 19 QUIZ 2	SEC 2-3: 57,59,61 SEC 2-4: 43,45,47,49,51,71, 73, 75
SEPT. 24 QUIZ 3	SEC 2-5: 23,33,35,39,41,53,55,57, 59,73,75,77	SEPT. 26	Review SEC 3-1: 35,39,43,45,49,51
OCT. 1 EXAM 1		OCT. 3	SEC 3-2: 35,41,43,47, 49, 61,63,69,79,93,97
OCT. 8 QUIZ 4	SEC 3-3: 21,23,25,27,29,31,33,35,37,39	OCT. 10	SEC 3.4: 21,23,25,29,31,35,37,39, 43,49
OCT. 15 EXAM 2		OCT. 17	SEC 4-1: 17,23,53,57,61 SEC 4-4: 27,33,37,53,57
OCT. 22 QUIZ 5	SEC4-2: 19,21,41,47,53 SEC4-3: 3,9,11,13,15,27,29,39,57,67, 69,71	OCT. 24	SEC4-5: 9,13,17,31,35,43,45,47,49,51
OCT. 29 QUIZ 6	SEC 4-6: 3,5,7,9,11,23,27,49,55	OCT. 31	SEC 5-1: 31,33,41,45,47 SEC 5-2: 17,27,33,39,43
NOV. 5 QUIZ 7	SEC 5-3: 11,15,17,19,21,31,33,35,37,41,43 SEC 7-2: 73,77,79,81,83	NOV. 7 EXAM 3	
NOV. 12	SEC 7-3: 35,49,55,57,59 SEC 7-4: 31,33,39,41,61,63,65,	NOV. 14 QUIZ 8	SEC 8-1: 3,5,9,13,15,19,53,77,83,91,95
NOV. 19 POST TEST	SEC 8-2: 3,5,13,23,29,31,33,77,81,83	NOV. 21	THANKSGIVING RECESS
NOV. 26	SEC 8-3: 5,7,11,29,31,25,27,47,49,51 SEC8-4: 11,15,17,21,23,25,27,47,51	NOV. 28 QUIZ 9	SEC8-5: 3,7,9,11,15,23,29,31,37
DEC. 3	SEC11-1: 15,27 SEC 11-2: 7,5,19	DEC. 5 QUIZ 10	SEC 11-3: 11,13 SEC:11-4: 7,9,19,21,23,43,45,49,51
DEC. 10	SEC11-5: 13,17,19,21,25,53,55,59,63,65	DEC. 12 EXAM 4	REVIEW