

**Math 204 MATHEMATICS FOR BUSINESS ANALYSIS I
SPRING 2008**

SECTION	TIME	DAYS	ROOM
007	3:00 – 5:00 pm	Tu Th	Swart 2

INSTRUCTOR: Dr. Chitra Gunawardena

OFFICE: Swart 207

PHONE: 424-1340

E-MAIL: gunawarc@uwosh.edu

OFFICE HOURS: 2:00 – 3:00 pm Tu.Th.

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 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. Please see me if you are not sure that the calculator you have is appropriate for this class. For the classroom demonstrations I will be using TI-83. **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 scheduled on:

EXAM	TOPICS	DATE
Exam 1	Chapters 1,2	February 26, 2008
Exam 2	Chapter 3	March 13, 2008
Exam 3	Chapters 4,5	April 15, 2008
Exam 4	Chapters 7,8,11	May 15, 2008

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 **February 7** and a **post-test** on **May 1**. 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
Feb 5	SEC 1-2: 41,43,47,49,51,59,61, 63,65, 69, 73	Feb 7 Pre-Test	SEC 2.1: 43,45,47,49,51,55,57,59,61, 63,65,67, 69, 91, 95, 97, 99, 103, 105, 119, 121,123,
Feb 12 Quiz 1	SEC 2-2: 43, 45, 47, 65, 67 SEC 2-3: 1,3, 9,15,17, 23, 25, 27	Feb 14	SEC 2-3: 49, 57,59,61, SEC 2-4: 43,45,47,49,51,71, 73, 75
Feb 19 Quiz 2	SEC 2-5: 23,33,35,39,41,53,55,57, 59,73,75,77	Feb 21	Review SEC 3-1: 35,39,43,45,49,51
Feb 26 Exam 1		Feb 28	SEC 3-2: 35,43,47,49,61,63,65,69,75,79,93,97,99
Mar 4 Quiz 3	SEC 3-3: 21,23,25,27,29,31,33,35,37,39,41,43	Mar 6	SEC 3.4: 21,23,25,27, 29,31,33, 35,37,39,41,43, 47,49,51
Mar 11 Quiz 4	Review: 17,21,23,33,36,37,40,47,51,57,59, SEC 4-1: 17,23,53, 57 59,61, 63, 65	Mar 13 Exam 2	
Mar 18	SEC4-2: 41,47,53 SEC4-3: 3,9,11,13,15,27,29,31,39,41,	Mar 20 Quiz 5	SEC4-3: ,65,67, 69,71,77 SEC 4-4: 27,33,37,53,57
Mar 25	Spring Break	Mar 27	Spring Break
Apr 1	SEC4-5: 9,13,17,31,35,43,45,47,49,51 SEC 4-6: 3,5,7,9,11,23,27,49,55	Apr 3 Quiz 6	SEC 5-1: 31,33,41,45,47 SEC 5-2: 17,27,33,39,43
Apr 8	SEC 5-3: 11,15,17,19,21,31,33,35,37,41,43	Apr 10 Quiz 7	Review SEC 7-2: 73,77,79,81,83
Apr 15 Exam 3		Apr 17	SEC 7-3: 35,49,55,57,59 SEC 7-4: 31,33,39,41,61,63,65,
Apr 22 Quiz 8	SEC 8-1: 3,5,9,13,15,19,53,77,83,91,95 SEC 8-2: 3,5,13,23,29,31,33,77,81,83	Apr 24	SEC 8-3: 5,7,11,29,31,25,27,47,49,51
Apr 29 Quiz 9	SEC8-4: 11,15,17,21,23,25,27,47,51 SEC8-5: 3,7,9,11,15,23,29,31,37	May 1 Post-Test	SEC:11-4: 7,9,19,21,23,43,45,49,51
May 6 Quiz 10	SEC11-5: 3,17,19,21,25,53,55,59,63,65	May 8	SEC11-1: 15,27 SEC 11-2: 7,5,19 SEC 11-3: 11,13
May 13	Review	May 15 Exam 4	