Academic Programs

COURSE OUTLINE Revision: J. Zou, R. Dorman, O. Shatunova, April 2008

DEPARTMENT:	Academic Programs
CURRICULUM:	Mathematics
COURSE TITLE:	Applications to Mathematics to Management, Life and Social Sciences
COURSE NUMBER:	MATH 116
TYPE OF COURSE: Special Requirement Met:	Academic Transfer QSR
AREA(S) OF KNOWLEDGE:	The Natural World: Science, Technology, and the Environment/ The Language of Science
COURSE LENGTH:	1 quarter
CREDIT HOURS:	5
LECTURE HOURS:	55
LAB HOURS:	0
CLASS SIZE:	35 (25 when online)
PREREQUISITES:	MATH 098 with a 2.0 or better or appropriate placement score.

COURSE DESCRIPTION:

Mathematical models, graphs, and algebraic functions in finance, management, life and social sciences, matrices, inequalities, exponential and logarithmic functions.

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STUDENT LEARNING OUTCOMES ADDRESSED:

- Computation Use arithmetic and other basic mathematical operations as required by program of study. Apply quantitative skills for personal, academic and career purposes.
- 2. Communication Read and listen actively to learn and communicate.
- 3. Critical Thinking and Problem Solving Think critically in evaluating information, solving problems and making decisions.
- 4. Technology Select and use appropriate technological tools for personal, academic and career tasks.
- Personal Responsibility Be motivated and able to continue learning and adapt to change. Value one's own skills, abilities, ideas and art. Take pride in one's work. Be aware of civic and environmental issues.

GENERAL COURSE OBJECTIVES:

To learn the use of the basic tools of algebra as problem solving aids as a means of preparing for business calculus.

TOPICAL OUTLINE CONTINUED:

- I. Algebraic concepts
- II. Linear equations and functions
- III. Matrices
- IV. Inequalities and linear programming
- V. Quadratic functions
- VI. Exponential and logarithmic functions
- VII. Mathematics of finance

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SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1	1	Communication - Read and listen actively
SLO 1.2		Communication - Speak and write effectively
SLO 2.1	1	Computation - Use mathematical operations
SLO 2.2	1	Computation - Apply quantitative skills
SLO 2.3	1	Computation - Identify, interpret, and utilize higher level mathematical and cognitive skills
SLO 3.1		Human Relations - Use social interactive skills to work in groups effectively
SLO 3.2		Human Relations - Recognize the diversity of cultural influences and values
SLO 4.1	1	Critical Thinking and Problem Solving -
SLO 5.1	1	Technology - Select and use appropriate technological tools
SLO 6.1	1	Personal Responsibility - Be motivated and able to continue learning and adapt to change
SLO 6.2	1	Personal Responsibility - Value one's own skills, abilities, ideas and art
SLO 6.3	1	Personal Responsibility - Take pride in one's work
SLO 6.4		Personal Responsibility - Manage personal health and safety
SLO 6.5	1	Personal Responsibility - Be aware of civic and environmental issues
SLO 7.1		Information Literacy - Access and evaluate information
SLO 7.2		Information Literacy - Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society

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