

COURSE OUTLINE

Revision: Marjie Vittum-Jones, April 2008

DEPARTMENT:	Academic Programs
CURRICULUM:	Developmental Mathematics
COURSE TITLE:	Elementary Algebra
COURSE NUMBER:	MATH 097
TYPE OF COURSE:	College Preparatory
Special Requirement Met:	None
AREA(S) OF KNOWLEDGE:	None
COURSE LENGTH:	1 quarter
CREDIT HOURS:	5
LECTURE HOURS:	55 (lecture, lab and online format)
LAB HOURS:	0
CLASS SIZE:	25 (for lab) or 30 (for lecture)
PREREQUISITES:	Placement exam or recent algebra coursework.

COURSE DESCRIPTION:

This course is a fast-paced review for students who have had algebra recently. It covers operations with sign numbers, factoring, solutions of linear and quadratic equations, exponents, polynomials, systems of equations, graphs, fractional and radical expressions and equations.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Communication – Read and listen actively to learn and communicate.

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STUDENT LEARNING OUTCOMES CONTINUED:

2. Computation – Use arithmetic and other basic mathematical operations as required by program of study. Apply quantitative skills for personal, academic, and career purposes. Identify, interpret and utilize higher level mathematical and cognitive skills (for those students who choose to move beyond the minimum requirements).
3. Critical thinking and problem-solving – Think critically in evaluating information, solving problems, and making decisions.
4. 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.
5. Technology – Select and use appropriate technological tools for personal, academic and career tasks.

GENERAL COURSE OBJECTIVES:

The student will do most or all of the following:

1. Demonstrate success on evaluations over the topics studied.
2. Be able to work with basic arithmetic skills.
3. Work to build a foundation of algebra skills for subsequent mathematical classes.
4. Develop regular attendance and time management/organizational skills.

TOPICAL OUTLINE:

- I. Real numbers and algebraic expressions
- II. Solving equations and inequalities
- III. Graphs of linear equations
- IV. Graphs, slopes, and applications
- V. Polynomials: operations
- VI. Exponents and exponent properties
- VII. Problem solving
- VIII. Polynomials: factoring
- IX. Rational expressions and equations & problem solving
- X. Systems of equations & problem solving
- XI. Radical expressions and equations & problem solving

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TOPICAL OUTLINE CONTINUED:
XII. Solving quadratic equations
APPROX HOURS: 55

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SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1	1 – 5	Communication - Read and listen actively
SLO 1.2		Communication - Speak and write effectively
SLO 2.1	1 – 5	Computation - Use mathematical operations
SLO 2.2	1 – 5	Computation - Apply quantitative skills
SLO 2.3	1 – 5	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 – 5	Critical Thinking and Problem Solving -
SLO 5.1	1 – 5	Technology - Select and use appropriate technological tools
SLO 6.1	1, 5	Personal Responsibility - Be motivated and able to continue learning and adapt to change
SLO 6.2	1, 5	Personal Responsibility - Value one's own skills, abilities, ideas and art
SLO 6.3	1, 5	Personal Responsibility - Take pride in one's work
SLO 6.4		Personal Responsibility - Manage personal health and safety
SLO 6.5	1, 5	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

PREPARED BY: M. Vittum-Jones and O. Shatunova
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