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 radial expressions and equations.

STUDENT LEARNING OUTCOMES ADDRESSED:

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


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

 REVISED BY: M. Vittum-Jones and O. Shatunova
 DATE: April 2008
<table>
<thead>
<tr>
<th>SLO #</th>
<th>Included in Course Objective Number</th>
<th>SSCC Student Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLO 1.1</td>
<td>1 – 5</td>
<td>Communication - Read and listen actively</td>
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<tr>
<td>SLO 1.2</td>
<td></td>
<td>Communication - Speak and write effectively</td>
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<tr>
<td>SLO 2.1</td>
<td>1 – 5</td>
<td>Computation - Use mathematical operations</td>
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<tr>
<td>SLO 2.2</td>
<td>1 – 5</td>
<td>Computation - Apply quantitative skills</td>
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<tr>
<td>SLO 2.3</td>
<td>1 – 5</td>
<td>Computation - Identify, interpret, and utilize higher level mathematical and cognitive skills</td>
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<tr>
<td>SLO 3.1</td>
<td></td>
<td>Human Relations - Use social interactive skills to work in groups effectively</td>
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<tr>
<td>SLO 3.2</td>
<td></td>
<td>Human Relations - Recognize the diversity of cultural influences and values</td>
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<tr>
<td>SLO 4.1</td>
<td>1 – 5</td>
<td>Critical Thinking and Problem Solving -</td>
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<tr>
<td>SLO 5.1</td>
<td>1 – 5</td>
<td>Technology - Select and use appropriate technological tools</td>
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<tr>
<td>SLO 6.1</td>
<td>1, 5</td>
<td>Personal Responsibility - Be motivated and able to continue learning and adapt to change</td>
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<tr>
<td>SLO 6.2</td>
<td>1, 5</td>
<td>Personal Responsibility - Value one's own skills, abilities, ideas and art</td>
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<tr>
<td>SLO 6.3</td>
<td>1, 5</td>
<td>Personal Responsibility - Take pride in one's work</td>
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<td>SLO 6.4</td>
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<td>Personal Responsibility - Manage personal health and safety</td>
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<tr>
<td>SLO 6.5</td>
<td>1, 5</td>
<td>Personal Responsibility - Be aware of civic and environmental issues</td>
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<td>SLO 7.1</td>
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<td>Information Literacy - Access and evaluate information</td>
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<tr>
<td>SLO 7.2</td>
<td></td>
<td>Information Literacy - Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society</td>
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