# COURSE SYLLABUS

**Course Title:** Elementary Algebra Foundations  
**Department:** Mathematics & Science  
**Curriculum:** Mathematics  
**Date submitted:** Spring 2014 (AAC: 14-92)  

## Course Descriptors:
Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.

### Course Code:
MAT*095

### Course Type:
L


### Elective Type:
N/A

### Credit Hours:
3

### Developmental:
yes

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Clinical</th>
<th>Lab</th>
<th>Studio</th>
<th>Other</th>
<th>TOTAL</th>
</tr>
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<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
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### Contact Hours:
TOTAL: 3

### Class Maximum:
27

### Semesters Offered:
F/Sp/Su

## Prerequisites:
- C or better in PreAlgebra-Number Sense/Geometry (MAT*075) or appropriate placement test score

## Corequisites:
None

## Other Requirements:
None

## Catalog Course Description:
A non-credit course for students who have never had algebra or who need to review algebraic concepts. The following topics of algebra are covered: signed numbers, solving linear equations and inequalities in one variable, solving formulas and word problems involving linear equations, graphing linear equations and inequalities in 2 variables, formulating equations of lines in two variables, rules of integral exponents and the 4 operations (addition, subtraction, multiplication, division) on polynomials, factoring, and solving systems of two equations in two variables. This course does not satisfy a mathematics elective in any program.

## Topical Outline:
List course content in outline format.

1. Solving Linear Equations and Inequalities in one variable, solving related Formulas and Word Problems
2. Graphing Linear Equations and Inequalities in two variables; formulating Equations of Lines in two variables; related Word Problems
3. Rules of Integral Exponents; four Operations on Polynomials
4. Factoring of Polynomials
5. Solving Systems of two Linear Equations in two unknowns and related Word Problems

## Outcomes:
Describe measurable skills or knowledge that

Upon successful completion of this course, the student will be able to do the following:

COURSE:
<table>
<thead>
<tr>
<th>students should be able to demonstrate as evidence that they have mastered the course content.</th>
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<tbody>
<tr>
<td>1. solve linear equations, formulas and inequalities in 1 variable and related word problems</td>
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<tr>
<td>2. graph and formulate equations of lines in two variables; solve related word problems</td>
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<tr>
<td>3. graph inequalities in two variables; solve related word problems</td>
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<tr>
<td>4. apply the rules of integral exponents and the 4 operations on polynomials</td>
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<tr>
<td>5. apply factoring to polynomials</td>
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<tr>
<td>6. solve systems of two linear equations in two unknowns and related word problems</td>
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**PROGRAM:** does not apply

**GENERAL EDUCATION:** *(Numbering reflects General Education Outcomes as they appear in the college catalog)*

7. **Quantitative Reasoning** - Students will learn to recognize, understand, and use the quantitative elements they encounter in various aspects of their lives. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.

**Demonstrates:** Interprets numerical information and applies sufficient laws of logic and mathematics to solve problems using numbers, symbols, graphs and/or descriptions.

**Does Not Demonstrate:** Misinterprets numerical information or insufficiently applies laws of logic and mathematics to solve problems using numbers, symbols, graphs and/or descriptions.

**Evaluation:** List how the above outcomes will be assessed.

- Assessment will be based on the following criteria:
  - Quizzes
  - Tests
  - Classroom assessments
  - Departmental midterm exam (optional depending on instructor)
  - Final exam (required for all sections)

**Instructional Resources:**

- Required: large amounts of board space and individual desks; access to MyMathLab
- Desired: None

**Textbook(s):**

- Introductory and Intermediate Algebra, 3rd edition by Bittinger/Beecher