SEWARD COUNTY COMMUNITY COLLEGE
COURSE SYLLABUS

I. TITLE OF COURSE: MA0043- Beginning Algebra

II. COURSE DESCRIPTION: 3 credit hours
3 **credit hours of lecture and** 0 **credit hours of lab per week.**

This course is for the college student who has not had an algebra course previously or for the student who needs a refresher course in the basic algebra concepts. Successful completion of this course should prepare the student for Intermediate Algebra. This course does not count toward graduation. For each unit of credit, a minimum of three hours per week with one of the hours for class and two hours for studying/preparing outside of class is expected.

EduKan course number: MA076

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Pre-requisite: "C" or better in Advanced Arithmetic or see placement matrix.

III. PROGRAM AND/OR DEPARTMENT MISSION STATEMENT:

The Mathematics Department at Seward County Community College will enhance a student's ability to think critically using mathematical principles, ideas, and concepts in order to function in a society with ever-changing technology.

IV. TEXTBOOK AND MATERIALS:

1. Bittinger, Prealgebra and Introductory Algebra, Pearson, 4th Edition, 2016 (optional)
2. MyMathLab Access Code (Given in Class)

V. SCCC OUTCOMES

Students who successfully complete this course will demonstrate the ability to do the following SCCC Outcomes.

4. Demonstrate mathematical skills using a variety of techniques and technologies.

5: Demonstrate the ability to think critically by gathering facts, generating insights, analyzing data, and evaluating information

6: Exhibit skills in information and technological literacy

VI. COURSE OUTCOMES:

1. To add, subtract, multiply, and divide real numbers.
2. To develop procedures for operations on algebraic expressions.
3. To simplify numeric and algebraic expressions using Order of Operations.
4. To solve linear equations in one variable.
5. To solve linear inequalities in one variable.
6. To explore the relationship between linear equations and their graphs.
7. To graph linear equations and determine the slopes of lines.
8. To find equations of lines given the slope and a point on the line, or other sufficient information.
9. To solve applications involving linear equations.

10. To add, subtract, multiply, and divide polynomial expressions.
11. To understand the concept of factoring polynomials.
12. To solve quadratic equations by factoring method.

VII. COURSE OUTLINE:

1. Adding, subtracting, multiplying and dividing real numbers and how real numbers relate on the number line.
2. Evaluating and simplifying variable expressions
3. Solving linear equations and applications such as number, age, and geometry problems.
4. Graphing linear equations in two variables by plotting points, using a point and a slope and using x and y intercepts.
5. Graphing vertical and horizontal lines.
6. Using the slope formula, distance formula and midpoint formula.
7. Writing the equations of all lines including vertical and horizontal lines.
8. Using the properties of exponents to simplify expressions.
9. Adding, subtracting, multiplying and dividing polynomials in one or many variables.
10. Factoring using greatest common factors, grouping, trinomial factoring and using special formulas such as difference of squares, difference of cubes and sum of cubes.
11. Solving quadratic equations using the factoring method.

VIII. INSTRUCTIONAL METHODS:

1. Lecture. Lectures will be used to emphasize different concepts of the daily lessons.
2. Assignments. Students will work selected problems in order to involve the student and assure his or her understanding of the skills required for future work. Homework and quizzes for this course are done utilizing Pearson's MyMathLab site.
3. Class Discussions. Questions may be initiated by either the teacher or students at any time during class discussions.
4. Cooperative learning techniques for selected concepts.
5. Examinations. Tests are frequently used to help summarize concepts and emphasize important skills.
6. Individual Help.

IX. INSTRUCTIONAL AND RESOURCE MATERIALS:

1. MyMathLab computer access which includes the etext, study plan, and videos.

2. Math Resource Center

3. Supplemental texts and library mathematics reference books

4. Supplemental materials available on Canvas.

X. METHODS OF ASSESSMENT:

SCCC Outcome #4 will be assessed and measured by class participation, regular assignments, and tests.

SCCC Outcome #5 will be assessed and measured using assignments, tests and nontraditional problem-solving activities.

SCCC Outcome #6 will be assessed and measured by using in class assessment.

XI. ADA STATEMENT:

Under the Americans with Disabilities Act, Seward County Community College will make reasonable accommodations for students with documented disabilities. If you need support or assistance because of a disability, you may be eligible for academic accommodations. Students should identify themselves to the Dean of Students at 620-417-1106 or go to the Student Success Center in the Hobble Academic building, room A149.

Syllabus Reviewed: 5/19/2022