COLUMBUS STATE
COMMUNITY COLLEGE

PUBLIC SYLLABUS

Mathematics Department

Course and Number: MATH 1050 ~ Elementary Algebra

CREDITS: 5   CLASS HOURS PER WEEK: 5

PREREQUISITE: DEV 0114; minimum grade of "C", or completion of MATH 1099 (DEV 0114 module), or placement equivalent.

DESCRIPTION OF THE COURSE:

First course of a two-semester sequence. Includes the study of the real number system including properties of real numbers, order of operations, operations on algebraic expressions, solving linear equations and inequalities in one variable, the rectangular coordinate system, graphs of linear equations and inequalities in two variables, systems of equations and inequalities in two variables, applications and modeling, properties of exponents, scientific notation, polynomial arithmetic, factoring, and solving polynomial equations. Includes applications and activities to build skills in problem solving.

LEARNING OUTCOMES:

1. Identify and work with real numbers
2. Evaluate and simplify algebraic expressions; solve linear equations and inequalities in one variable
3. Graph equations in two variables
4. Graph linear equations and inequalities in two variables; write the equation of a line
5. Solve systems of linear equations and inequalities in two variables
6. Perform operations on polynomials
7. Factor polynomials; solve polynomial equations

COURSE MATERIALS REQUIRED:

- Access to ALEKS 360 is included automatically when students enroll in this course.
- A graphing calculator

UNITS OF INSTRUCTION:

- The Real Number System (Sections 1.2, 1.3, 1.7)
- Linear Equations and Inequalities in One Variable (Sections 2.3 – 2.8)
- The Coordinate Plane; Overview of Graphing Equations in Two Variables (Sections 3.1, 3.2)
- Linear Equations and Inequalities in Two Variables (Sections 3.3 – 3.5, 9.5)
- Systems of Linear Equations and Inequalities in Two Variables (Sections 4.1 – 4.4, 9.5)

- Exponents and Polynomials: Addition, Subtraction, Multiplication and Division; Scientific Notation (Sections 5.1 – 5.7)
- Factoring Polynomials and Solving Polynomial Equations (Sections 6.1 – 6.8)

GENERAL INSTRUCTIONAL METHODS:

Instructional methods may include face-to-face or video lectures or demonstration, face-to-face or virtual discussion, individual or group activities including the use of visual aids, graphing calculators, computers and/or other technologies. Students may be expected to participate in these activities during class and/or outside of class. Instructors may require class participation, collaborative learning, and peer review.

A NOTE ON PROCTORED TESTING

The CSCC Mathematics Department requires proctored testing in all courses, in all modalities. All assessments will be taken on campus or at another approved testing center, by appointment.