MATH 095E - Elementary Algebra Expanded (3 Credits Lecture and 1 Credit Lab)

DESCRIPTION:

This is also a course in the fundamental operations of real numbers, solving linear equations in one variable, exponents, polynomials, graphing linear equations in two variables, and solving linear systems in two variables. The topics will be delivered in a self-paced format using technology, allowing students to begin at the appropriate level based on course placement and allowing them to move through as many topics as they can within the time limits of the semester. This course provides basic foundation for future mathematics needed in many fields. A comprehensive, proctored, departmental final exam will be given.

Prerequisite: A Satisfactory ACT/SAT/Placement Test Score

OUTCOMES:

At the end of the semester, students will be able

a. to solve linear inequalities.
b. to solve applications involving linear equations.
c. to graph linear equations in two variables.
d. to manipulate exponential expressions using rules of exponents.
e. to perform operations on polynomials.
f. to solve systems of linear equations.

TEXT:

No Text is required. Students must purchase ALEKS 360 access code.

OUTLINE:

- Add, Subtract, Multiply, and Divide Real Numbers
- Combine like terms
- Evaluate Expressions
- Solve one and multi-step linear equations
- Solve one and multi-step linear inequalities
- Solve Absolute Value Equations and Inequalities
- Determine x and y intercepts
- Determine the slope of a line
- Determine if lines are parallel or perpendicular
- Write equations of lines
- Graph linear equation in two variables
- Graph linear inequality in two variables
- Graph system of linear equations
- Graph system of linear inequalities
- Solve system of equations using substitution and/or addition method
- Utilizes the rules for exponents
- Add, subtract, multiply, and divide polynomials

- Solve applications of linear equations
- Solve applications of system of linear equations

EVALUATION:

Grades will be determined by student performance in one or more of the following areas: in-class tests, take-home tests, homework assignments, quizzes, special projects, papers, attendance, and class participation.

This course DOES NOT satisfy the Math component of a degree or certificate program at CSN.