

## MATH 093 - Pre Algebra (3 Credits)

### DESCRIPTION:

A course intended to review arithmetic and to preview elementary algebra.

**Prerequisite:** MATH 091 with a grade of C or better; or a satisfactory ACT/SAT/Placement Test Score.

### OUTCOMES:

- a. Manipulate whole numbers, integers, fractions, decimals and percents.
- b. Become familiar with the Order of Operations.
- c. Simplify algebraic expressions.
- d. Evaluate algebraic expressions.
- e. Solve linear equations in one variable.
- f. Graph ordered pairs on a coordinate axis.
- g. Graph linear equations in two variables on a coordinate axis.
- h. Obtain area and perimeter of simple geometric shapes.
- i. Apply and extend all concepts.

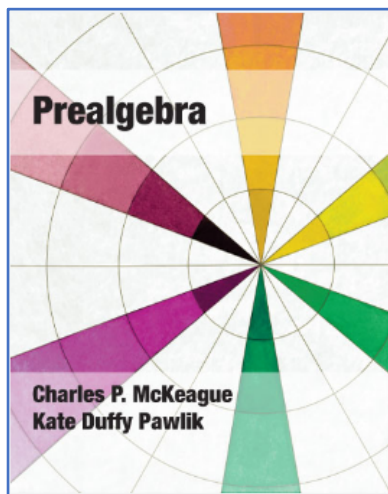
### TEXT:

**Title:** \*Prealgebra;

**Authors:** Charles P. McKeague and Kate Duffy Pawlik;

**Publisher:** XYZ Textbooks;

**ISBN:** Paperback - 978-1-936368-66-2, Loose Leaf - 978-1-63098-108-2



\*Note: Full-time instructors have the right to use no text or a different text.

## OUTLINE:

- **Whole Numbers:** Names for Numbers, Place Value, Whole Number Arithmetic, Rounding, Estimating, Displaying Information, Exponents, Order of Operations, Averages (McKeague/Pawlik, Sections R.1-R.7)
- **Integers/Introduction to Algebra:** Positive and Negative Numbers, Integer Arithmetic, Simplifying Algebraic Expressions (McKeague/Pawlik, Sections 1.1-1.6)
- **Fractions:** Meaning, Properties, Prime Numbers, Factors, Reducing to Lowest Terms, Fraction Arithmetic, Mixed Numbers, Mixed Number Arithmetic, Combinations of Operations, Complex Fractions (McKeague/Pawlik, Sections 2.1-2.9)
- **Linear Equations in One Variable:** The Distributive Property, Algebraic Expressions, Addition and Multiplication Properties of Equality, Application of Linear Equations (McKeague/Pawlik, Sections 3.1-3.5)
- **Decimals:** Decimal Notation and Place Value, Decimal Arithmetic, Fractions and Decimals, Equations Containing Decimals, Square Roots, the Pythagorean Theorem (McKeague/Pawlik, Sections 4.1-4.7)
- **Percent:** Percents/Decimals/Fractions, Basic Percent Problems, Applications of Percent (McKeague/Pawlik, Section 6.1-6.3)
- **Geometry:** Perimeter, Circumference, Area (McKeague/Pawlik, Sections 8.1-8.2)
- **Linear Equations in Two Variables/Graphing:** Paired Data, Graphing Ordered Pairs, Solutions to Linear Equations in Two Variables, Graphing Linear Equations in Two Variables, Graphing Intercepts (McKeague/Pawlik, Sections 9.1-9.4)
- **Exponents and Polynomials:** Multiplication/Division with Exponents, Operations with Monomials, Polynomial Arithmetic (McKeague/Pawlik, Sections 10.1-10.5)

## EVALUATION:

Grades may 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. Degree of importance and types of assessment used will depend on the instructor.

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