

MATH 098 Pre-College Introductory Algebra Concepts

Course objectives:

Upon successful completion of this course, the student should achieve the following:

- simplify and evaluate algebraic expressions
- become competent with basic algebraic operations within the real number system
- accurately solve linear, literal, and quadratic equations and inequalities
- build techniques of reasoning for effective problem solving
- be familiar with graphs of linear equations, inequalities, systems of linear equations, and quadratic equations

Usual course content:

- o Evaluate using order of operations
- o Add, subtract, multiply, divide integers, decimals, fractions, and mixed numbers
- o Solve word problems involving integers, decimals, fractions, mixed numbers, and percents
- o Solve linear equations and inequalities in one or two variables
- o Solve Systems of Linear Equations and Inequalities
- o Factor polynomials
- o Solve quadratic equations
- o Graph linear equations and quadratic equations
- o Solve mixture, proportion, simple interest, and other word problems
- o Solve problems involving perimeter, area, and volume

Technology:

A scientific graphing calculator, such as the Texas Instruments TI-84, is suggested.

Students who may benefit:

Students underprepared for college-level mathematics

Follow up courses:

College-level mathematics courses (Level 3), such as MATH 110, MATH 104, MATH 108, MATH 110E, MATH 170, MATH 118