

Course: Basic Algebra Refresher

Course Description:

This course will give an introduction to the fundamental concepts of algebra. It will give a review of arithmetic skills, solving linear equations and inequalities, application problems, graphing lines and introduction to polynomials and factoring. Here the student will be able to communicate mathematically in both written and verbal forms, to reason with symbolic and graphical representations and to use mathematics to solve real-world problems.

Topics Covered:

- Fractions
- Decimals
- Percents
- Signed numbers
- Properties of real numbers
- Order of operations
- Linear equations and inequalities
- Addition principle
- Multiplication principle
- Solving linear equations
- Using formulas
- Solving linear inequalities
- Lines
- Plotting points in the Cartesian Plane
- Slope
- Slope-intercept form of the equation of a line
- Point-Slope form of the equation of a line
- Graphing lines
- Graphing linear inequalities
- Exponents and polynomials
- Rules of exponents
- Negative exponents and scientific notation
- Adding and subtracting polynomials
- Multiplying polynomials
- Dividing polynomials
- Factoring polynomials
- Greatest common factor

- Factoring by grouping
- Factoring trinomials
- Factoring special forms
- Solving quadratic equations by factoring

Duration: 15 days