

Syllabus For Algebra 1

Northwest Academy

This is an introductory course into the basics of Algebra, material will be introduced through video instruction and students will be provided both online and offline opportunities for practice with the material.

Unit 1 Tools of Algebra

- Order of Operations
- Distributive Property

Unit 2 Solving Equations

- Solving single variable equations
- Solving SVE with variables on both

sides

- Rate, time and distance problems

Unit 3 Inequalities

- Single Variable Inequalities
- Compound Inequalities
- Absolute Value Inequalities

Unit 4 Ratios and Proportions

- Solving Proportions and ratios
- Proportional Word problems
- Percent of Change Word Problems

Unit 5 Functions

- Identify and Evaluate Functions
- Direct Variation Functions

Unit 6 Linear Functions

- Graph on the Coordinate Plane
- Line Slope and Slope Intercept Form
- Point Slope and Standard Form

Unit 7 Systems of Equations

- Solving Systems By graphing
- Solving Systems by Substitution
- Solving Systems by Elimination
- Word Problem Systems

Unit 8 Exponents

- Simplifying Exponential Expressions
- Variable Exponential Expression
- Scientific Notation

Unit 9 Factoring Polynomials

- Classify and Combine Polynomials
- Multiply Polynomials
- Factor Quadratics

Unit 10 Solving Quadratics

- Graph Quadratic Equations
- Solve Quadratics Square Root
- Solve Quadratics Zero Product
- Solve Quadratics Complete the Square
- Quadratic Formula

Unit 11 Radical Expressions

- Simplify Radical Expressions
- Radical Variable Expressions
- Combine Radical Expressions
- Solve Radical Equations

Unit 12 Rational Expressions

- Simplify Rational Expressions
- Multiply and Divide Rational Expressions
- Combine Rational Expressions
- Solve Rational Equations