Whitmore SCHOOL

235 High St. Suite 508 Morgantown, WV 26505 1-844-409-0521 www.whitmoreschool.org

Algebra 2 Honors

Grade Level: 9, 10, 11, 12

Credit: 0.5 or 1.0

Prerequisite: Algebra I and Geometry

Algebra 2 Honors includes the study of absolute value inequalities, factoring of polynomials, radicals, lines, linear inequalities, complex numbers, solving quadratic equations and inequalities, functions, inverse functions and compositions, variation, exponential and logarithmic functions, systems of linear equations, matrix operations, inversion, determinants, and conic section basics. Study includes both math theory and real-life application of concepts. Appropriate technology, including calculators and application software, is used regularly for instruction and assessment.

Students complete additional concepts beyond the College Preparatory standards. Students completing this challenging course will earn honors credit and weighted grade point average.

Algebra 2 Lessons

Teacher Message

Lesson 1: Pre-Test

Lesson 2: Absolute-Value Inequalities and Review of Factoring

Lesson 3: Factoring Polynomials of Higher Degree

Lesson 4: Radicals and Roots

Lesson 5: Solving Radical Equations

Lesson 6: Solving Radical Equations II

Lesson 7: Review

Lesson 8: Lines

Lesson 9: Linear Inequalities

Lesson 10: Complex Numbers

Lesson 11: Quadratic Equations with Complex Numbers

Lesson 12: More with Quadratic Equations

Lesson 13: Solving Quadratic Inequalities

Lesson 14: Review

Lesson 15: Functions

Lesson 16: Inverse Functions

Lesson 17: Composition of Functions

Lesson 18: Direct, Inverse, and Joint Variation

Lesson 19: Review

Lesson 20: Exponential Functions

Lesson 21: Exponential and Logarithm Functions

Lesson 22: Rules for Logarithms

Lesson 23: Graphing Exponential and Log Functions

Lesson 24: Solving Log Problems

Lesson 25: Solving Exponential Problems

Lesson 26: Review of Exponential and Log Functions

Lesson 27: Systems of Linear Equations I

Lesson 28: Systems of Linear Equations II

Lesson 29: Introduction to Matrices

Lesson 30: Matrix Multiplication

Lesson 31: Review of Systems of Linear Equations and Matrices

Lesson 32: Matrix Inversion

Lesson 33: Determinants

Lesson 34: Introduction to Conic Sections

Lesson 35: Review of Matrix Inversion, Determinants, and Conic Sections

Lesson 36: Skills Assessment