Year at a Glance

Algebra 2 Regular & Honors

Course Number 1200330/1200340

Course Description:

In Algebra 2 Honors, instructional time will emphasize six areas: (1) developing understanding of the complex number system, including complex numbers as roots of polynomial equations; (2) extending arithmetic operations with algebraic expressions to include polynomial division, radical and rational expressions; (3) graphing and analyzing functions including polynomials, absolute value, radical, rational, exponential and logarithmic; (4) extending systems of equations and inequalities to include non-linear expressions; (5)building functions using compositions, inverses and transformations and (6) developing understanding of probability concepts.

Textbook Publisher:

Florida Reveal Algebra 2 Honors, McGraw Hill (Students have online access through My.Sarasotacountyschols.net)

Standards:

Available on CPalms: Regular & Honors

Available on Florida Department of Education: Regular & Honors

Quarter 1	**Unit 1: Linear Equations, Inequities and Systems**	2-1 Solving Absolute Value Equations and Inequalities 2-2 Linear Functions (**example 5&6 Honors only**) 2-3 Solving Systems of Equations Graphically 2-4 Solving Systems of Equations Algebraically 2-5 Solving Systems of Inequalities 2-6 Solving Systems of Equations in Three Variables
	Unit 2: Quadratic Functions	3-1 Graphing Quadratic Functions 3-2 Solving Quadratic Equations by graphing 3-3 Complex Numbers 3-4 Solving Quadratic Equations by factoring 3-5 Solving Quadratic Equations by completing the square 3-6 Using the Quadratic Formula and the discriminant 3-7 Quadratic Inequalities 3-8 Solving Linear-Nonlinear Systems
Quarter 2	**Unit 3: Properties of Functions**	1-1 Functions and Continuity 1-2 Linearity, Intercepts, and Symmetry 1-3 Extrema and End Behavior 1-4 Sketching Graphs and Comparing Functions **1-5A Honors:** Piecewise Functions 1-5 Absolute Value 1-6 Transformations of Functions
	Unit 4: Inverse and Radical Functions	6-1 Operations on Functions 6-2 Inverse Relations and Functions 6-3 nth Roots and Rational Exponents 6-4 Graphing Radical Functions 6-5 Operations with Radical Expressions 6-6 Solving Radical Equations
Quarter 3	**Unit 5: Exponential Functions**	7-1 Graphing Exponential Functions 7-2 Solving Exponential Equations 7-3 Special Exponential Functions **7-4 Honors:** Geometric Sequences 7-5 Modeling Data
	Unit 6: Logarithmic Functions	8-1 Logarithms and Logarithmic Functions 8-2 Properties of Logarithms 8-3 Common Logarithms 8-4 Natural Logarithms 8-5 Using Exponential and Logarithmic Functions 8-6 Simple, Compound, and Continuously Compounded Interest
	Unit 7: Polynomials and Polynomial Functions	4-1 Polynomial Functions 4-2 Analyzing Graphs of Polynomial Functions 4-3 Operations with Polynomials 4-4 Dividing Polynomials **4-5 Honors:** Powers of Binomials

Quarter 4	**Unit 8: Polynomial Educations**	5-1 Solving Polynomial Equations by Graphing 5-2 Solving Polynomial Equations Algebraically 5-3 Proving Polynomial Identities **5-4A Honors:** The Remainder Theorem 5-4 The Factor and Rational Zeros Theorems 5-5 Roots and Zeros
	Unit 9: Rational Functions	9-1 Multiplying and Dividing Rational Expressions 9-2 Adding and Subtracting Rational Expressions 9-3 Graphing Reciprocal Functions 9-4 Graphing Rational Functions 9-6 Solving Rational Equations
	Module 10: Probability (Honors Only)	10-1 Sample space 10-2 Probability and Counting 10-3 Probability with Permutations and Combinations 10-4 Probability and the Multiplication Rule 10-5 Probability and the Addition Rule 10-6 Conditional Probability
	Module 11: Matrices (Honors only)	11-1 Representing Data Using Matrices 11-2 Operations with Matrices 11-3 Multiplying Matrices 11-4 Solving Systems of Equations Using Cramer's Rule 11-5 Solving Systems of Equations Using Inverse Matrices

Please Note:

- Teachers may use additional resources as noted on an individual teacher's syllabus. For specific questions regarding individual classrooms please contact the teacher for clarification.
- This guide represents a recommended sequence that can be used voluntarily by teachers. Dates may vary depending on individual classrooms. For specific questions regarding pacing please contact the individual teacher for clarification.
- **Graduation Requirements:** Students earning a standard high school diploma must earn at least one math credit in Algebra 1 or an equivalent course. The student must also pass the FSA Algebra 1 End of Course Exam (EOC) or earn a concordant score. More information on graduation requirements and concordant scores can be found here: Graduation Requirements for Florida's Statewide Assessments.