Year at a Glance

Mathematics for College Algebra

Course Number 1200710

Course Description:

In Mathematics for College Algebra, instructional time will emphasize five areas: (1) developing fluency with the Laws of Exponents with numerical and algebraic expressions; (2) extending arithmetic operations with algebraic expressions to include rational and polynomial expressions; (3) solving one-variable exponential, logarithmic, radical and rational equations and interpreting the viability of solutions in real-world contexts; (4) modeling with and applying linear, quadratic, absolute value, exponential, logarithmic and piecewise functions and systems of linear equations and inequalities; (5) extending knowledge of functions to include inverse and composition.

Textbook Publisher:

College Prep Algebra Mathematics for College Readiness Florida Edition 2e (Students have online access through My.Sarasotacountyschols.net)

Standards:

Available on CPalms: Mathematics for College Algebra

Available on Florida Department of Education: Mathematics for College Algebra

Quarter 1	**Unit 0: The Real Number System & Fundamentals of Algebra**	Chapter 1 and Chapter 2 (all sections within each) *Optional unit for prerequisite skills
	Unit 1: Equations, Inequalities, and Problem Solving	3.1 Solving Linear Equations 3.2 Equations that reduce to Linear Form 3.3 Problem Solving with Percent's 3.4 Rations and Proportions 3.5 Geometric and Scientific Applications 3.6 Linear Inequalities 3.7 Absolute Value Equations and Inequalities
	Unit 2: Graphs and Functions	4.1 Ordered Pairs and Graphs 4.2 Graphs of Equations n Two Variable 4.3 Relations, Functions, and Graphs 4.4 Slope and Graphs of Linear Equations 4.5 Equations of Lines 4.6 Scatter Plots of Lines 4.7 Graphs of Linear Inequalities
	Unit 3: Exponents and Polynomials	5.1 Integer Exponents and Scientific Notation 5.2 Adding and subtracting Polynomials 5.3 Multiplying Polynomials: Special Products 5.4 Dividing Polynomials and Synthetic Division
Quarter 2	**Unit 4: Factoring and Solving Equations**	6.1 Factoring Polynomials with Common Factors 6.2 Factoring Trinomials 6.3 ore About Factoring 6.4 Factoring Polynomials with Special Forms 6.6 Solving Polynomials Equations by Factoring *Optional unit for prerequisite skills
	Unit 5: Rational Expressions, Equations, and Functions	7.1 Rational Expressions and Functions 7.2 Multiplying and Dividing Rational Expressions 7.3 Adding and Subtracting Rational Expressions 7.4 Complex Fractions 7.5 Solving Rational Equations 7.6 Graphing Rational Functions 7.7 Applications and Variation
Quarter 3	**Unit 6: Systems of Equations ad Inequalities**	8.1 Solving Systems of Equations by Graphing and Substitution 8.2 Solving Systems of Equations by Elimination 8.3 Linear Systems in Three Variable 8.6 Systems of Linear Inequalities
	Unit 7: Radicals and Complex Numbers	9.1 Radicals and Rational Exponents 9.2 Simplifying Radical Expressions 9.3 Adding and Subtracting Radical Expressions 9.4 Multiplying and Dividing Radical Expressions 9.5 Radical Equations and Applications
	Unit 8: Quadratic Equations, Functions, and Inequalities	10.1 Solving Quadratic Equations 10.2 Completing the Square 10.3 The Quadratic Formula 10.4 Graphs f quadratic Functions 10.5 Applications of Quadratic Equations 10.6 Quadratic and Rational Inequalities

	Unit 9: Transformations and Combinations of Functions	Appendix B • Shifting Graphs • Reflecting Graphs • Nonrigid Transformations • Determining Function Type
Quarter 4	**Unit 10: Exponential and Logarithmic Functions**	11.1 Exponential Functions 11.2 Composite and Inverse Functions 11.3 Logarithmic Functions 11.4 Properties of Logarithms 11.5 Solving Exponential and Logarithmic Equations 11.6 Applications
	Unit 11: Sequences, Series, and the Binomial Theorem	All Chapter 13 *This unit is option for extending learning.

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.