Honors GT Algebra 2 Syllabus

Course Description/Goals:

      Honors/GT Algebra II is designed to meet the needs of gifted students by combining Honors strategies with enhanced depth, complexity, and pacing of the Mathematics curriculum. Thinking skills, exploratory learning, and leadership qualities are promoted. Honors/GT Algebra II includes the same course of study designed for Algebra II. In addition, students will develop advanced problem solving and symbol manipulation skills. Honors/ GT students will be expected to take course concepts to advanced levels of development, understanding, and justification. Honors/GT assignments and assessments will be designed to model AP exam formatting.   In Algebra II, students will build on the knowledge and skills for mathematics in KindergartenGrade 8 and Algebra I. Students will broaden their knowledge of quadratic functions, exponential functions, and systems of equations. Students will study logarithmic, square root, cubic, cube root, absolute value, rational functions, and their related equations. Students will connect functions to their inverses and associated equations and solutions in both mathematical and real-world situations. In addition, students will extend their knowledge of data analysis and numeric and algebraic methods.

Course TEKS/Objectives:

      The Algebra 2 TEKS (Texas Essential Knowledge and Skills) are organized into reporting categories, each focusing on a specific area of algebra. These categories include: Absolute Value Functions; Systems of Equations and Inequalities; Quadratic and Square Root Functions; Cube Root, Cubic, and Other Polynomial Functions. Each category contains specific standards (TEKS) that students are expected to master.
https://tea.texas.gov/sites/default/files/ch111c.pdf

Course Outline:

Semester 1	Semester 2
-Analyzing Functions -Absolute Value Equations and Inequalities -Quadratic Factoring -Polynomials -Quadratic Functions -Quadratic Equations and Inequalities -Systems of Equations and Inequalities	-Polynomial Functions -Polynomial Equations -Rational Functions -Exponential Functions -Logarithmic Properties and Exponential and Logarithmic Functions -Modeling with Exponential and Other Functions