

# Honors GT Algebra 1 Syllabus

## **Course Description/Goals:**

The Honors GT Algebra I course includes the same course of study designed for Algebra I. Designed to meet the needs of gifted students by combining Pre-AP strategies with enhanced depth, complexity, and pacing of the Mathematics curriculum. Thinking skills, exploratory learning, and leadership qualities are promoted. This course assists in preparing students for the challenges offered by Advanced Placement, Dual Credit and OnRamps course in high school through sustained habits necessary for success in these advanced courses. Students must meet the criteria established by the District's Admission, Review and Exit (ARE) Committee. In Algebra I, students will build on the knowledge and skills from mathematics in Grades 6-8, which provide a foundation in linear relationships, number and operations, and proportionality. Students will study linear, quadratic, and exponential functions and their related transformations, equations, and associated solutions. Students will connect functions and their associated solutions in both mathematical and real-world situations. Students will use technology to collect and explore data and analyze statistical relationships. In addition, students will study polynomials of degree one and two, radical expressions, sequences, and laws of exponents. Students will generate and solve linear systems with two equations and two variables and will create new functions through transformations.

## **Course TEKS/Objectives:**

The Algebra 1 TEKS (Texas Essential Knowledge and Skills) are organized into reporting categories, each focusing on a specific area of algebra. These categories -include: Number and Algebraic Methods; Describing and Graphing Linear Functions, Equations and Inequalities; Writing and Solving Linear Functions, Equations, and Inequalities; and Quadratic and Exponential Functions and Equations. 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
<ul style="list-style-type: none"><li>-Solving Equations and Inequalities</li><li>-Functions and Models</li><li>-Linear Functions and Features</li><li>-Forms of Linear Equations</li><li>-Systems of Linear Equations</li><li>-Linear Inequalities</li><li>-Exponents, Radicals, and Sequences</li></ul>	<ul style="list-style-type: none"><li>-Exponential Functions</li><li>-Polynomial Operations</li><li>-Factoring Polynomials</li><li>-Attributes of Quadratics</li><li>-Solving Quadratics</li><li>-Using Algebra in Geometry</li></ul>