



Algebra 1

Course Name: Algebra 1	
Department: Math	Grade Level(s) 9-12
Duration/Credits: 1year/1.0 credit	Prerequisites none
BOE Approval Date: 12-20-18	Course Code: 2100
Course Description:	
<p>This course will develop logical mathematical thought through the use of variables, algebraic properties and their connection to real world situations. The course will primarily explore solving and graphing equations and inequalities of functions. Algebra skills will be developed to support these investigations. Patterns, probabilities, statistics, number sense and relationships to real world situations will also be incorporated throughout the course. Additional perspectives and activities will be investigated to gain understanding of the topics in Algebra 1. Before taking the course the student should have mastered integer operations, rational number operations, order of operations and solving one-step and two-step equations on one variable.</p>	
Course Rationale:	
<p>Algebra 1 is a critical element in secondary mathematics education. Topics introduced in Algebra 1 provide the foundation the student requires for future success in high school mathematics, critical thinking, and problem solving. The primary goal in Algebra 1 is to help the student transfer concrete mathematical knowledge and abstract algebraic generalizations to their future career. In this way, the student will be expected to achieve mastery of Algebra 1 before moving on to the next math course, providing the best opportunity for success for every student.</p>	
Course Objectives:	
<ol style="list-style-type: none">1. The student will be able to create, represent graphically, describe in written form, and analyze equations or inequalities that describe linear, quadratic, and exponential relationships. (A+ Writing)2. The student will summarize, represent, and interpret data from authentic sources. (A+Research)	

3. The student will read about systems in context and then compare, interpret and solve systems of equations and inequalities. (A+ Reading)
4. The student will understand the concept of a function using function notation and the effects of transformations (limited to linear, quadratic, and exponential) and verbally communicate the effects. (A+ Speaking)
5. The student will solve equations and inequalities while understanding the proper use of units within a given context. (A+writing)
6. The student will perform operations of polynomials.
7. The student will extend and use properties of rational exponents.
8. The student will investigate, identify, interpret, and use structure by researching probability and statistical data. (A+ Research)