Reseda High School
Police Academy Magnet
CC Algebra 1
Instructor: Mr. Ethington

Course Description:
Common Core Algebra 1 is composed of four parts at Reseda High School. They are CC Algebra 1 A, CC Algebra 1 B, CC Algebra 1 Tutorial Lab A, and CC Algebra 1 Tutorial Lab B. In Common Core Algebra 1, while integrating *law and law enforcement themes*, we will learn symbolic reasoning and how to interpret, set up, and perform calculations with symbols. We will also develop logical thought processes with emphasis on reasoning and logical arguments. We will be using the SpringBoard program of instruction.

Topics of Instruction:

Unit 1: Equations and Inequalities
Numeric and Graphic Representations of Data
Writing Expressions
Writing and Solving Equations
The Scales of Justice
Equations with Variables on Both Sides
Solving More Complex Equations
Equations with No Solution or Infinitely Many Solutions
Solving Literal Equations for a Variable
Inequalities and Their Solutions
Solving Inequalities
Compound Inequalities

Unit 2: Functions
Relations and Functions
Domain and Range
Function Notation
Basic Function Graphs
More Complex Function Graphs
Graphs of Real-World Functions
The Spring Experiment
The Falling Object Experiment
The Radioactive Decay Experiment
Exploring Vertical Translations
Exploring Horizontal Translations
Slope
Slope and Rate of Change
Direct Variation
Indirect Variation
Other Linear Models
Inverse Functions

Arithmetic Sequences
Recursive Formulas
Slope-Intercept Form
Point-Slope Form
Standard Form
Slopes of Parallel and Perpendicular Lines
Scatter Plots and Trend Lines
Linear Regression
Quadratic and Exponential Regression

Unit 3: Extensions of Linear Concepts
Function Notation and Rate of Change
Writing Functions
Finding Domain and Range
Evaluating Functions and Graphing Piecewise-Defined Linear Functions
Comparing Functions
Writing Equations from Graphs and Tables
Comparing Functions with Inequalities
Writing Equations from Verbal Descriptions
Writing and Graphing Inequalities in Two Variables
Graphing Inequalities in Two Variables
Solving Linear Equations by Graphing
Solving Linear Equations Using Tables and the Substitution Method
Solving Linear Equations by Elimination
Relationship between poverty and crime
Relationship between education and crime
Systems Without a Unique Solution
Classifying Systems of Equations
High speed pursuits: are they worth it and how to catch them quickly
Representing the Solution of a System of Inequalities
Interpreting the Solution of a System of Inequalities
Where to station police effectively

Unit 4: Exponents, Radicals, and Polynomials
Basic Exponent Properties
Negative and Zero Powers
Additional Properties of Exponents
Radical Expressions
Adding and Subtracting Radical Expressions
Multiplying and Dividing Radical Expressions
Radius of a search area
Identifying Geometric Sequences
Exponential Functions and Exponential Growth
Exponential Decay
Graphs of Exponential Functions
Modeling with Exponential Functions
Polynomial Terminology
Adding Polynomials
Subtracting Polynomials
Multiplying Binomials
Special Products of Binomials
Multiplying Polynomials

Factoring by the GCF
Factoring Special Cases
Factoring Simple Quadratic Expressions
Factoring Quadratic Expressions
Key suspects method
Simplifying Rational Expressions
Dividing Polynomials
Multiplying and Dividing Rational Expressions
Adding and Subtracting Rational Expressions

Unit 5: Quadratic Functions
Modeling with a Quadratic Function
Graphing and Analyzing a Quadratic Function
Translating Quadratic Functions
Stretching and Shrinking Quadratic Functions
Multiple Transformations of Quadratic Functions
Solving Quadratic Equations by Graphing
Solving Quadratic Equations by Factoring
Solving Quadratic Equations by Completing the Square
The Quadratic Formula
Choosing a Method and Using the Discriminant
Complex Solutions
Fitting Data with a Quadratic Function
Interpreting Solutions of a Quadratic Equation
Path of a bullet

Grading
Grade cutoffs used are as follows, A: 89.5% and up, B: 79.5% to 89.4%, C: 69.5% to 79.4%, D: 59.5% to 69.4%, F: 59.4% and below.

Attendance, Cooperation and Work Habits
You are required to follow the attendance policy of the school. Your attendance will have a direct connection to your semester grade. Attending class is very important, especially with the institution of the 4 by 4 block schedule. Absent students will miss opportunities to receive in class participation and classwork points. In order to be successful, you must attend class on a regular basis. Exams and quizzes must be made up the day you return to school.

Cooperation and respect are expected at all times. Compliance with school and classroom rules is required. Deviation from behavior requirements will result lowered cooperation marks and potentially in class suspension.

Assignment Types
Student grades will be determined using students' demonstrations of knowledge of the subject by tests, in class assignments, homework, quizzes, SpringBoard assignments, and other assessments as determined to be needed by the teacher, as well as the Midterm and Final Exam at the end of each mester, and using student in class participation as follows:

Tests, Assignments, and other assessments -	75%
Midterm/Final Exam -	20%
Participation -	5%

Timely, thorough and contemplative completion of all assignments is necessary for successful completion of the class. If assignments are not completed and submitted in a

timely, thorough and contemplative manner, there will be an immediate and direct impact on both the Academic grade, as well as the Work Habits grade for the class.

Classwork/Homework and Cheating Policy
All classwork and homework will be assigned during class, and is due the next day of class. All classwork not finished in class is to be completed for homework. Unfinished assignments may impact students' Theoretical Work grades, or Application Work grades, and neglect of in class assignments will impact participation grades as well. All student work must be that of the individual student. CHEATING of any type will not be tolerated. This applies to ANY and ALL assignments. Any incidence of cheating will result in parent conferencing, a zero on the assignment (for all students(s) involved) and a "U" in both work habits and cooperation on all report cards in addition to the consequences outlined in the cheating policy of the student's magnet or by Reseda High School.

Contact and Website
A class website is maintained at ethingtonsclass.weebly.com. Non-SpringBoard assignments will be available here, as well as a calendar for the class. The best way of contacting me is via email at lhe7822@lausd.net .

Please read the section below, sign, tear off, and return to teacher.

I have read the policies and expectations for the CC Algebra 1 and CC Algebra 1 Tutorial classes and understand them. If I choose not to meet these expectations, I am willing to accept the consequences.

Student Printed Name: _____

Student Signature: _____ Date: _____

Parent/Guardian Printed Name: _____

Parent/Guardian Signature: _____ Date: _____

Parent/Guardian: If you have an email address you would like the teacher to use to communicate with you about your child's progress, please include it here:

_____

Comments/Concerns: