



# Southern Lehigh School District

High School Syllabus

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## Applied Algebra I

2014-2015

### Course Description:

APPLIED ALGEBRA I is a course designed to meet the students' needs in a competitive and changing technological world. APPLIED ALGEBRA I emphasize the connection between theory and the practical and technical skills necessary to be successful in life. The delivery of concepts is done in a flexible, application-based mode that provides for hands on understanding of the relationships of algebraic concepts through real life situations. Emphasis is placed on the properties of the real number system with development of logical reasoning and problem solving abilities for practical and technical applications.

### Course Content:

- Patterns and Multiple Representations
- Proportional Reasoning, Percents, and Direct Variation
- Solving Linear Equations
- Linear Functions and Inequalities
- Writing and Graphing Linear Equations
- Lines of Best Fit
- Systems of Equations and Inequalities
- Quadratic Functions
- Properties of Exponents
- Polynomial Functions Rational Expressions
- Probability
- Statistical Analysis
- Quadratic and Exponential Functions and Logic

### Required Textbooks and/or Other Reading/Research Materials

Algebra I content is delivered in a blended course format, with a combination of collaborative, student-centered textbook lessons and adaptive Cognitive Tutor software lessons.

*Carnegie Learning Algebra I* by Carnegie Learning. Carnegie Learning, 2012.

### Course Requirements:

Each student is required to complete all tests, projects, and assignments assigned throughout the course in addition to the Cognitive Tutor Program. Failure to do so will affect the student's overall grade

Grade Components/Assessments:

Grades will be based on a weighted category system.

The following methods will be used, for the year, to assess and evaluate student performance.

Assessments : 60%

Homework: 15%

Classwork/Cognitive Tutor: 25%

Each marking period is worth 20% of a student's overall grade. The final is worth 20 % of a student's overall average:

Quarter 1	20%
Quarter 2	20%
Quarter 3	20%
Quarter 4	20%
<b>Final</b>	<b>20%</b>

Required Summer Reading/Assignments:

There is no required summer assignments