



# Course Overview

High School | Algebra I Math Lab - Last Updated on April 2, 2025

## DESCRIPTION

### K-12 Content Area | Mission & Philosophy Statement

- With confidence and perseverance, young people can tackle complex and novel mathematical challenges, becoming skilled problem solvers who take ownership over their learning process.
- Young people possess the ability to reason mathematically, make conjectures, solve problems and build understanding through effective dialogue and collaboration.
- Learners exhibit critical inquiry through the deliberate asking of questions and the integration of conceptual understanding, reasoning abilities, and procedural fluency.
- Strategically selecting materials, technology, and other resources support mathematical learning and aid in achieving mathematical goals. (NCTM, 2024)

### Course Description

This course is established to provide additional support and practice for students in Algebra 1. This is a pass/fail course for students to meet grade level standards. The goal is to strengthen students' algebraic skills for standardized test administration. This class is taken concurrently with course Algebra 1. The course is diagnostic and prescriptive in nature to prepare the student for standardized testing. Individualized remediation may be planned for each student to optimize retention and performance on standardized tests.

## STANDARDS

### National Common Core - High School - Algebra

SSE.A SSE.B SSE.A.1 SSE.A.2 SSE.A.1a SSE.A.1b SSE.B.3 SSE.B.4

SSE.B.3a SSE.B.3b SSE.B.3c APR.A APR.B APR.C APR.D APR.A.1

APR.B.2 APR.B.3 APR.C.4 APR.C.5 APR.D.6 APR.D.7 CED.A CED.A.1

CED.A.2 CED.A.3 CED.A.4 REI.A REI.B REI.C REI.D REI.A.1 REI.A.2

REI.B.3 REI.B.4 REI.B.4a REI.B.4b REI.C.5 REI.C.6 REI.C.7 REI.C.8

REI.C.9 REI.D.10 REI.D.11 REI.D.12

### Pennsylvania - High School - Keystone Algebra I



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A1.1.1.1.1

A1.1.1.1.2

A1.1.1.2.1

A1.1.1.3.1

A1.1.1.4.1

A1.1.1.5.1

A1.1.1.5.2

A1.1.1.5.3

A1.1.2.1.1

A1.1.2.1.2

A1.1.2.1.3

A1.1.2.2.1

A1.1.2.2.2

A1.1.3.1.1

A1.1.3.1.2

A1.1.3.1.3

A1.1.3.2.1

A1.1.3.2.2

A1.2.1.1.1

A1.2.1.1.2

A1.2.1.1.3

A1.2.1.2.1

A1.2.1.2.2

A1.2.2.1.1

A1.2.2.1.2

A1.2.2.1.3

A1.2.2.1.4

A1.2.2.2.1

A1.2.3.1.1

A1.2.3.2.1

A1.2.3.2.2

A1.2.3.2.3

A1.2.3.3.1

### COURSE OBJECTIVES

Specific objectives for this course are aligned to the Pennsylvania Core Standards for Mathematics and the Common Core State Standards for Mathematics.

### ASSESSMENT TYPES

The following assessment types will be used during the course:

- Diagnostic Assessments
- Formative Assessments
- Summative Assessments

### SUGGESTED METHODS OF INSTRUCTION

Below is a list of suggested strategies for high-quality instruction in Mathematics:

- Instructional components outlined in the *Framework for Teaching by Charlotte Danielson*
- Teacher-Centered Instruction
- Inquiry-Based Learning
- Small Group Instruction
- Cooperative Learning
- Student-Centered/Constructivist Approach
- Project-Based Learning
- Flipped Classroom



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### RESOURCES

District Approved Program Resources	District Approved Supplemental Resources	District Approved Technology Resources
<ul style="list-style-type: none"> <li>• <i>Algebra 1</i>. Prentice Hall (2011) Pearson Publishing</li> </ul>	<ul style="list-style-type: none"> <li>• TI-Calculators 84Central Calculator Activities <a href="https://education.ti.com/en/84activitycentral/us/algebra-i">https://education.ti.com/en/84activitycentral/us/algebra-i</a></li> <li>• Nearpod <a href="https://nearpod.com/">https://nearpod.com/</a></li> <li>• Desmos <a href="https://www.desmos.com/">https://www.desmos.com/</a></li> <li>• Khan Academy <a href="https://www.khanacademy.org/math/algebra">https://www.khanacademy.org/math/algebra</a></li> <li>• IXL Online Learning Platform <a href="https://www.ixl.com/math/algebra-1">https://www.ixl.com/math/algebra-1</a></li> <li>• <i>Algebra 1</i> <a href="#">Prentice Hall Digital Resources 2011.</a></li> <li>• Geogebra: Interactive Algebra Resources <a href="https://www.geogebra.org/m/rfqkadzg">https://www.geogebra.org/m/rfqkadzg</a></li> <li>• Teacher created materials</li> </ul>	<ul style="list-style-type: none"> <li>• TI30X Scientific Calculators</li> <li>• TI-84Plus /TI-84CE Graphing Calculators (with software programs)</li> </ul>