



**SOUTHERN LEHIGH SCHOOL DISTRICT**  
5775 Main Street  
Center Valley, PA 18034

## **Planned Course for Mathematics**

**Course:** Algebra III

### **Standards:**

This course is aligned to standards within the following Domains of the PA Core Standards:

HS.F	Number and Quantity
HS.D	Algebra
HS.C	Functions
HS.A	Geometry

### **Course Description:**

The K-12 mathematics program within Southern Lehigh School District will provide opportunities for all students to develop the ability to independently apply mathematical knowledge and skills to real-world situations. A robust and coherent curriculum will prepare students to think and reason mathematically while requiring them to demonstrate a deep understanding of mathematics. Students will develop critical thinking, problem solving, innovation, collaboration, and communication skills. A focus will be placed on using mathematics as a key to understanding the world, in order to meet the challenges of a dynamic society.

ALGEBRA III is designed to extend student learning in the areas of algebra. Content will include linear, polynomial, rational, exponential, and logarithmic functions, as well as their graphs. Students will deepen their knowledge of systems, matrices and determinants.

### **Prerequisite(s):**

- Successful completion of an Algebra II course

### **Measurable objectives to be attained by students:**

Specific objectives for this course are aligned to the Pennsylvania Core Standards for Mathematics and the Common Core State Standards for Mathematics as outlined in the Scope and Sequence for Algebra III.

### **Instructional Strategies:**

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

- Instructional components outlined in the *Framework for Teaching* by Charlotte Danielson
- Use Concrete Representational Abstract (CRA) representations
- Promote productive struggle
- Promote mathematical discourse
- Use precise mathematical language

**Estimated Instructional Time:**

77 minutes per day on an alternating A/B block schedule for one semester

**Forms of Assessment to Measure Attainment of Course Objectives:**

- Curriculum-based measures
- Benchmark Assessments
- Formative Assessments
- Summative Assessments

**Resources:****Student Text Resources:**

Blitzer, Robert. *Algebra and Trigonometry*. Pearson, 2018.

- Student Text Printed Version
- Student Text Online Version

**Teacher Resources:**

Blitzer, Robert. *Algebra and Trigonometry*. Pearson, 2018.

- Teacher's Guide Printed Version

**Technology:**

Scientific calculator

District approved supplemental technology

**Other Resources:**

Manipulatives

Teacher created resources

District approved supplemental resources