

NPHS Mathematics Department

Algebra 1 (grade 9)

- Solving Linear Equations
- Graphing Linear Equations/Inequalities in two variables
- Bivariate Data
- Systems of Linear Equations/Inequalities
- Exponential Functions
- Polynomial Operations and Factoring

Geometry (grade 10)

- Geometric Foundations, Constructions and Relationships
- Triangle Congruence
- Triangle Similarity
- Right Triangle Trigonometry
- Transformations
- Circles
- Polygons
- Two and Three Dimensional Measurements and Modeling

Math Skills (grade 10)

- Statistics and Data Analysis
- Probability
- PSAT prep/Khan Academy
- Circles
- Polygons

Essentials I (grade 11)

- Data
- Expressions, Exponents
- Proportions, Percents, Decimals, Interest
- Probability
- Equations & Inequalities
- SAT prep

- Linear Equations, Parallel, Perpendicular Slopes
- Systems Equations/Inequalities
- Polynomial Operations, Factoring
- Quadratics: Graphing, Solving, Quadratic Formula

Algebra II (grade 11/12)

- Linear Programming
- Functions
- Quadratic Functions/Complex Numbers
- Polynomial Functions
- Rational/Radical Functions
- Exponential/Logarithmic Functions
- Trigonometric Functions
- Trigonometric Identities/Graphing
- Statistics

Pre-Calculus (grade 11/12)

- Functions and Graphing
- Polynomial and Rational Functions
- Exponential and Logarithmic Functions
- Trigonometric Functions
- Trigonometric Identities
- Additional Topics in Trigonometry
- Topics in Analytic Geometry

Topics in Mathematics (grade 12)

- SAT
- Linear Equations, Graphing, Inequalities
- Linear Program
- Quadratic Functions
- Polynomials
- Exponentials and Logarithms
- Trigonometric Functions and Identities

- Probability & Statistics
- Sequences
- Rational and Radical Functions

Consumer Math (grade 12)

- Gross and Net Income
- Bank Accounts and Interest
- Charge Accounts and Credit Cards
- Loans
- Insurance
- Budgeting
- Investments

Honors Calculus (grade 12)

- Limits and Continuity
- Differentiation: Definition and Fundamental Properties
- Differentiation: Composite, Implicit, and Inverse Functions
- Contextual Applications of Differentiation
- Analytical Applications of Differentiation
- Integration and Accumulation of Change

AP Calculus AB (grade 12)

- Limits and Continuity
- Differentiation: Definition and Fundamental Properties
- Differentiation: Composite, Implicit, and Inverse Functions
- Contextual Applications of Differentiation
- Analytical Applications of Differentiation
- Integration and Accumulation of Change
- Differential Equations
- Applications of Integration

Computer Science Pathway

Intro to CS/Work Based Learning (Grade 10)

- Introduction to programming
- Computational Thinkings Skills
- Algorithm Development
- Simulations
- Data Analysis
- Industry Work-Based learning Project

AP CS Principles (Grade 11)

- Creative Development
- Data
- Algorithms and Programming
- Computer Systems and Networks
- Impact of Computing

AP Computer Science A (Grade 12)

- Java Programming
- Primitive Types
- Using Objects
- Boolean Expressions and if Statements
- Iteration
- Writing Classes
- ArrayList
- 2D Array
- Inheritance
- Recursion