



High School Math Core Curriculum

Algebra I or Algebra I (H)

Algebra I focuses on seeing: 1) structure in expressions; 2) arithmetic with polynomials and rational functions; 3) creating equations; and 4) reasoning with equations and Inequalities.

Mathematical Practices

Grade: 9 Length: Year Prerequisite: Course 3 or placement test

Geometry or Geometry (H)

Geometry focuses on: 1) congruence; 2) similarity, right triangles, and trigonometry; 3) circles; 4) expressing geometric properties with equations; 5) geometric measurement and dimension; and 6) modeling with geometry. Apply geometric concepts in modeling situations

Grade: 9-12 Length: 2 Semesters Prerequisite: Algebra I or placement test

Algebra II or Algebra II (H)

Algebra II focuses on: 1) quadratic, rational, radical, exponential, and logarithmic functions and equations; 2) graphs of quadratic, exponential, and logarithmic functions; 3) equations quadratic in form; 4) operations on rational expressions, radical expressions, and complex numbers; 5) rational exponents; and 6) applications.

Grade: 9-12 Length: 2 Semesters Prerequisite: Geometry or placement test

Statistics and Probability

Statistics and Probability focuses on: 1) interpreting categorical and quantitative data; 2) making inferences and justifying conclusions; 3) conditional probability and the rules of probability; 4) using probability to make decisions.

Grade: 12 (can also be elective) Length: 1 Semester Prerequisite: Must be a Senior

Pre-Calculus (H)

Pre-Calculus focuses on advanced topics from algebra, geometry, trigonometry, and topics include DeMoivre's theorem, convergent geometric series, binomial theorem, and rational roots theorem.

Grade: 11-12 Length: 2 Semesters Prerequisite: Algebra II (H)

Calculus AB (AP)

Advanced Placement Calculus AB focuses on: 1) review of functions, trigonometry, limits, graphing calculators, derivatives, and integrals. This course prepares students for the Advanced Placement exam.

Grade: 11-12 Length: 2 Semesters Prerequisite: Pre-Calculus (H)