

Course Name: Honors Algebra 2

Duration: 1 Semester Full Year

Grade Level: 9th 10th 11th 12th (check all that apply)

Are there any prerequisites for the course?

Completion of Algebra 1 and Geometry. Recommended Algebra 1 (8th Grade) and Honors Geometry or Algebra 1 (7th Grade) and Geometry (8th Grade).

WHAT this course is about:

This course is an advanced Algebra course. You will explore different function families and build on the skills you learned in Algebra 1 as well as explore new topics to introduce you to content for Precalculus.

WHY take this course:

Take this course because you enjoy mathematics, want to continue to challenge yourself in mathematics, and are considering studying a STEM field in the future.

WHAT you'll learn:

Topics include:

- Foundations for Functions
- Quadratic Functions
- Polynomial Functions
- Rational Functions
- Exponential and Logarithmic Functions
- Radical and Rational Functions
- Trigonometry, Unit Circle, and Periodic Functions
- Statistics

A mix of Carnegie Learning, Mathia, DeltaMath and Khan Academy will be used.

WHAT you'll do:

You will learn to connect multiple representations of concepts expressed graphically, numerically, analytically, and verbally. The connections between these representations are important.

You will learn to communicate mathematically. Not only to solve a problem but to properly justify your answer.

WHERE this could take you:

After this course most students take Honors Precalculus or Precalculus and continue to AP Calculus AB or BC.

OPTIONAL Course Outline (“scope and sequence”, sequence chart, etc.)

SEMESTER 1:

Unit 1: Foundations for Functions (Solving Equations and critical Alg.1 review)

Unit 2: Quadratic Functions

Unit 3: Polynomial Functions

Unit 4: Rational Functions

Review for Semester 1 Final Exam—**Cumulative Semester 1 Final given last 2 days of semester.**

SEMESTER 2:

Unit 5: Exponential & Logarithmic Functions

Unit 6: Radical and Rational Exponent Functions

Unit 7: Trigonometry, Unit Circle, and Periodic Functions

Unit 8: Statistics

Review for Final Exam—**Cumulative Semester 2 Final given last 2 full days of semester.**