

# Algebra II Syllabus (Modified)

**Grade: 11&12**

## Goals:

This course will build on topics in Algebra II and introduce many new concepts to lay a solid foundation in the types of functions and equations that form the basis for advanced high school mathematics. We will stress problem solving and build an understanding of mathematical modeling to see the powerful applications of the concepts we study. This course is a preparation for Pre-Calculus, AP Calculus and college mathematics and move at an accelerated pace, thus requiring students to bring a positive attitude and a dedicated work ethic to the classroom each day.

## Expectations & Policies:

**Organization:** Students are asked to create an organizational system to retain notes, homework and graded assignments throughout the entire year so they can use that material for studying – all the way through final exams

**Homework/Practice:** Is a large part of mastering any math course and thus is assigned almost every night. Homework is graded purely on effort. Late homework will not receive full credit. For full credit, students are asked to attempt **all** problems on the assignment whether or not they complete them or get the right answer, and then correct their work when we go over questions in class. Homework assignments are often accompanied by reading assignments from the textbook in order to reinforce concepts discussed in class.

## School Grading Policy

**10% College preparedness**

**40% Exams**

**40% Class work/Projects**

**5% Homework**

**5% organizational skills/time management**

## *Common Core Algebra II*

- Unit 1 – Algebraic Essentials Review
- Unit 2 – Functions as the Cornerstones of Algebra II

- Unit 3 – Linear Functions, Equations, and Their Algebra
- Unit 4 – Exponential and Logarithmic Functions
- Unit 5 – Sequences and Series
- Unit 6 – Quadratic Functions and Their Algebra
- Unit 7 – Transformations of Functions
- Unit 8 – Radicals and the Quadratic Formula
- Unit 9 – Complex Numbers
- Unit 10 – Polynomial and Rational Functions
- Unit 11 – The Circular Functions
- Unit 12 – Probability
- Unit 13 – Statistics