

COURSE DESCRIPTION

Algebra 2 is a one-year course and requires a grade of "C" or better for admission to the University of California. Algebra 2 provides a review and extension of the concepts taught in Algebra 1. Topics covered will include operations with real number, systems of linear equations and inequalities, factoring, algebraic fractions and fractional equations, quadratic functions and some work with conic sections, exponential functions, complex numbers and logarithms.

ESSENTIAL KNOWLEDGE

Upon successful completion of this class, students will be able to:

- Solve equations and inequalities involving absolute value
- Write linear equations using real world data
- Identify and graph special functions including absolute value and step functions
- Solve systems of equations with three variables
- Solve systems of equations using Cramer's rule
- Understand synthetic division
- Simplify a radical expression using complex numbers
- Solve radical equations
- Solve any quadratic equation
- Write and graph equations of conic sections using their various properties
- Understand the remainder, factor and rational root theorems
- Find composition and inverse of functions
- Simplify, evaluate and solve equations using logarithms
- Solve and graph rational relations
- Understand the fundamental counting principle and the appropriate use of permutations and combinations

TEXT

Algebra 2 with Trigonometry, Prentice Hall

MATERIALS NEEDED DAILY

- Pencil and eraser
- Notebook (journal)
- Textbook
- Graph paper
- Scientific calculator (preferably TI-84 plus)

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