Radnor High School
Course Overview

Algebra 2 A
05040434

General Information

Credits: 1.0 Credits
Weighted: Unweighted
Prerequisite: Advanced Geometry

Length: Full Year
Format: Meets Daily
Grade: 10, 11

Course Description

This course reviews and extends an understanding of the number system, formulas, equations and graphs. Subject matter includes quadratics, radicals, exponents, complex numbers and the mathematical concept of function. Logarithms, exponential functions and theory of equations are introduced during the course. This course involves the use of a graphing calculator to develop and practice concepts, rather than the theoretical approach used in Honors Algebra 2. Students are expected to handle an appropriate workload at a moderate pace.

Course Objectives:

1. Students will explore number systems and computation.
2. Students will solve linear, absolute value, quadratic, polynomial, rational, radical, exponential and logarithmic equations.
3. Students will analyze and create graphs of linear, absolute value, quadratic, polynomial, rational, radical, exponential, and logarithmic functions.
4. Students will solve linear, absolute value, and quadratic inequalities.
5. Students will represent real-world situations that involve variable quantities with expressions, equations, and inequalities.
6. Students will use technology in the form of graphing calculators to analyze the graphs of functions described above in Objective #3.
7. Students will strengthen algebraic skills for standardized tests.

Common Assessments

- Midterm Exam
- Final Exam

Major Units of Study

MARKING PERIOD ONE

- **EQUATIONS AND INEQUALITIES**
- **LINEAR EQUATIONS AND FUNCTIONS**
- **SYSTEMS OF LINEAR EQUATIONS AND INEQUALITIES**

MARKING PERIOD TWO

- **QUADRATIC FUNCTIONS**
- **COMPLEX NUMBERS**
- **PROPERTIES OF EXPONENTS**

MARKING PERIOD THREE

- **POLYNOMIAL FUNCTIONS**
- **POWERS, ROOTS AND RADICALS**
- **EXPONENTIAL AND LOGARITHMIC FUNCTIONS**

MARKING PERIOD FOUR

- **EXPONENTIAL AND LOGARITHMIC FUNCTIONS**
- **RATIONAL EQUATIONS AND FUNCTIONS**
- **SEQUENCES AND SERIES**

Materials & Texts

Larson, Boswell, Kanold, Stiff (2001). *Algebra 2.* Evanston, IL: McDougal Littell Inc.
ISBN 789-DWO-03 02