

# Falmouth High School

Curriculum Guide

Mathematics Department



Course Numbers 3301, 3302, & 3303

Algebra II

Developed by Mathematics Teachers

2007-2008

## Course Rationale

## Course Description

**3301 Algebra II (Year) Grades 11, 12 4 Credits**

**3302 Algebra II CP (Year) Grades 10, 11, 12 4 Credits**

**3303 Algebra II Honors (Year) Grades 10, 11, 12 4 Credits**

This course provides a review of fundamental algebraic operation and study of relations and functions, irrational numbers and quadratic equations, exponents, and logarithms.

The Standard course provides a slower pace.

The Honors course provides a more in-depth study of Algebra II and the development of Trigonometry topics.

**Standard Algebra II Text:** Algebra II, Glencoe 2008 by Holliday, Luchin, Cuesvas

**Geometry College Prep and Honors TEXT:** Algebra II, McDougal Littell 2007 by Larson, Boswell, Kanold

## Content Specific Essential Questions

### Essential Questions

- How are linear functions, inequalities and systems evident in our surroundings and used to model real life situations?
- How are quadratic functions, inequalities and systems evident in our surroundings used to model real life situations?
- When is estimation used in finding and checking for a reasonable solution?
- What is the connection between graphical, analytical and numerical representations of data using technology?
- How do we use technology to solve problems, experiment, interpret results and verify conclusions?
- What are the various sets within the complex number system and how do those sets apply in the solutions of equations?

## Student Learning Outcomes

Students will:

- Simplify algebraic expressions, such as polynomials, absolute value, exponents, radicals, rational, complex and logarithmic
- Solve linear, quadratic, and absolute value equations, inequalities and systems
- Interpret linear and quadratic functions and their relationships to each other
- Relate algebraic expressions to real-life situations

<b>Course</b>	<b>% Homework Class Assign.</b>	<b>% *Part</b>	<b>% Quizzes</b>	<b>% Tests</b>	<b>% Final Exams</b>
Algebra I Part I	20	15	30	35	12
Algebra I Part II	20	15	30	35	12
Algebra II	20	15	30	35	12
Geometry	20	15	30	35	12
Senior Topics	20	15	30	35	12
Algebra I CP	15	10	35	40	16
Algebra II CP	15	10	35	40	16
Geometry CP	15	10	35	40	16
Trigonometry CP	20	5	35	40	16
Pre Calculus CP	20	5	35	40	16
Algebra II H	20	---	35	45	16
Pre Calculus H	20	---	35	45	16
Calculus H	20	---	35	45	16
Calculus AP	20	---	35	45	16

\*Participation will be based on established criteria.

Projects, journals, portfolios and notebook checks will be addressed in Classroom Management Plans and assigned as Test or Quiz grades.