Falmouth High School

Curriculum Guide **Mathematics Department**

Course Numbers 3101, 3102, & 3103
Algebra I
Developed by Mathematics Teachers
2007-2008

Course Rationale

This course is designed to provide students with the skills and concepts necessary to meet the requirements of the Massachusetts Curriculum Frameworks.

Course Description

3101 Algebra I Part I (Year) Grade 9 4 Credits
3102 Algebra I Part II (Year) Grades 9, 10 4 Credits
3103 Algebra I CP (Year) Grades 9, 10 4 credits

Topics covered include the study of real number system, solution of linear equations and inequalities, graphing of linear equations and inequalities, special products and factoring. Real life applications will be studied and problem-solving skills emphasized. Basic concepts in geometry and statistics will also be investigated.

The Standard course provides a slower pace.

Standard Algebra Text: *Algebra I*, Volume I and II, Glencoe 2007 by Cummins, Molloy, McClain

Algebra College Prep Text: *Algebra I*, McDougal Littell 2007 by Larson, Boswell, Kanold

Content Specific Essential Questions

Essential Questions

- How are linear functions, inequalities and systems useful to me now and in the future?
- How do you simplify and solve polynomial equations?
- When is estimation used in finding and checking for a reasonable solution?
- What is the connection between graphical, analytical and numerical representations of data?
- What are the various sets within the real number system and how do those sets apply in the solutions of equations?

Student Learning Outcomes

Students will:

- Evaluate symbols and associate symbols with words and figures
- Interpret number patterns and perform algebraic operations
- Solve linear equations using pen and pencil, validating the answers with a calculator
- Read tables, graphs and diagrams
- Interpret and relate algebraic expressions to real-life situations
- Solve, graph and interpret inequalities
- Solve systems of linear equations

Course	% Homework Class Assign.	% *Part	% Quizzes	% Tests	% Final Exams
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.