West Windsor-Plainsboro High School
<u>Advanced Algebra II Honors</u>

Description: This is a second year algebra course intended for students who have demonstrated critical thinking skills and have the recommendation of the Mathematics Department. Operations with polynomials, polynomial fractions, irrational numbers and exponents are reviewed in solving linear and quadratic equations and systems of equations and inequalities. Additional topics include relations and functions, series and sequences, complex numbers, conics, logarithms, regression equations and probability. Graphing, problem solving and analysis are stressed. Calculator and computer software usage is incorporated throughout the curriculum.

Textbook: <u>Algebra and Trigonometry</u>, <u>Functions and Applications</u>, Foerster, Addison Wesley (1994)

Expectations for Students: The students electing this course will:
- actively contribute to group discussions,
- participate in oral and written classwork,
- maintain a notebook which includes class notes, completed worksheets and textbook assignments.
- acquire a graphing calculator to be used in class and on independent assignments.

Measurable Proficiencies: To successfully complete the requirements of this course, the student will demonstrate the ability to:

- manipulate algebraic expressions
- solve linear and quadratic equations and inequalities, systems of equations and word problems
- graph linear and quadratic functions and relations, systems of equations and inequalities
- use a graphing calculator to solve problems
- use computer software to solve problems
- apply mathematics to solve real world problems

Evaluation: Methods used to evaluate the student's degree of understanding of the course content will include the following: class and homework assignments, group work, computer and calculator activities, projects, quizzes, tests, and a final examination. Assignments and evaluation procedures will be cumulative.

The student will attain a minimum proficiency in the course by earning an average grade of "C" or seventy percent. A minimum of eighty percent will result in a grade of "B", and a ninety percent or better in a grade of an "A".

Student Responsibility: It is the responsibility of the student to share the above information with parents or guardians.

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