Course Title

Algebra 1A (P)

Description of Target Group

This course is for all students who demonstrate successful mathematics interest, achievements, and ability.

Purpose

The purpose of Algebra 1A is to emphasize concepts and notation of sets. Students learn the real number set by using numbers of arithmetic; number inverses (negative numbers, except for the irrational); rules (theorems) for adding, subtracting, multiplying, and dividing positive and negative numbers; field axioms, theorems; absolute values and inequalities; and stress is placed on realistic word problems. This is the first semester of a one year course. Credit will constitute the A-F college entrance requirements.

Standards of Expected Student Achievement

Upon completion of this course, students will be able to successfully demonstrate the following skills:

1. Use algebraic symbols, sets and subsets.
2. Analyze algebraic statements with variables.
3. Solve first degree algebraic equations and inequalities.
4. Analyze and solve word problems.
5. Perform operation with polynomial expressions.
6. Factor polynomial expressions.

Instructional Materials

Text and Supplementary Materials

Refer to:<u>Secondary Adopted Texts and Approved Supplementary Books Used in the Santa Maria Joint Union High School District</u>

Activities

Individual work, lectures, class participation, demonstrations, audio visual materials, small group activities, and outside resource people.

Algebra 1B (P)

Description of Target Group

This course is for all students who have demonstrated interest and proficiency by successfully completing Algebra 1A or by demonstrating comparable proficiency.

Purpose

The purpose of Algebra 1B is to provide extensive study of the graphing of first degree equalities with some work in second degree qualities; irrational numbers, functions and quadratic equations. This is the second semester of a one year course.

Standards of Expected Student Achievement

Upon completion of this course, students will be able to successfully demonstrate the following skills:

1. Interpret and use graphs.
2. Analyze and solve word problems.
3. Demonstrate the ability to factor.
4. Solve quadratic equations and inequalities.
5. Solve systems of equations in two variables.
6. Use functions and variations.

Instructional Materials

Text and Supplementary Materials

Refer to: Secondary Adopted Texts and Approved Supplementary Books Used in the Santa Maria Joint Union High School District

Activities

Individual work, lectures, class participation, demonstrations, audio visual materials, field trips, small group activities, and outside resource people.