

## **Course Title**

Algebra 2A (P)

## **Description of Target Group**

This course is for all students who have completed Algebra 1A/1B and Geometry 1A/1B or have demonstrated comparable proficiency.

## **Purpose**

The purpose of Algebra 2A is to develop an understanding of number systems, to perform deductive reasoning procedures, to increase the skills of problem solving, and to analyze problems. This is the first 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. Recognize and use number systems, properties, and operations.
2. Use coordinate geometry successfully (including graphing lines and in equalities in two variables).
3. Solving systems of linear equations.
4. Use linear functions.
5. Factor polynomials.
6. Simplifying rational expressions.
7. Solve problems using quadratic functions and equations.
8. Use complex number systems in an expanded capability.
9. Use first and second degree equations in two variables.
10. Apply second year algebra topics to the solution of word problems.

## **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.

## **Course Title**

Algebra 2B (P)

## **Description of Target Group**

This course is for all students who have completed Algebra 1A/B, Geometry IA/B, and Algebra 2A or have demonstrated comparable proficiency.

## **Purpose**

The purpose of Algebra 2B is to develop an understanding of number systems, to perform deductive reasoning procedures, to increase the skills of problem solving, and to analyze problems. 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. Solve equations over the set of complex numbers.
2. Solve systems of equations and in inequalities in two variables.
3. Solve systems of equations in three variables.
4. Graph second degree equations in two variables (including conic sections).
5. Use exponential functions and logarithms.
6. Work with sequences and series.
7. Solve problems using the basics of trigonometry.
8. Prove trigonometric identities and formulas.

## **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, drills, lectures, class participation, demonstrations, audio visual materials, field trips, small group activities, and outside resource people.