



Name of School:

Name of Course: **Algebra 2**

Instructor Information:

Name:
E-mail address:
School phone number:
Web page address:
Best times to be reached:

Course Description

This course reviews first year Algebra from a more advanced point of view with additional study in quadratic equations, systems of equations, matrices and exponentiation. During the second term additional topics are studies in permutations, combinations, probability and progressions and a study of the real number system.

District Standards and Power Benchmarks

Numbers and Operations: Understands and applies concepts of numbers and operations.

1. Understands numbers, ways of representing numbers, relationships among numbers, and number systems
3. Computes fluently and makes reasonable estimates

Algebra: Understands and applies concepts of algebra and functions

1. Understands patterns, relations and functions
2. Represents and analyzes mathematical situations and structures using algebraic symbols
3. Uses mathematical models to represent and understand quantitative relationships
4. Analyzes change in a variety of situations

Data Analysis and Probability: Understands and applies concepts of data analysis and probability

1. Formulates questions that can be addressed with data and collects, organizes, and displays relevant data to answer them
2. Selects and uses appropriate statistical methods to analyze data

Problem Solving: Understands and applies problem solving strategies

1. Uses a variety of strategies to solve problems.

Geometry: Understands and applies concepts of geometry

1. Analyzes characteristics and properties of two- and three-dimensional geometric shapes and develops mathematical arguments about geometric relationships

Course Information

Course length: Two terms
Credits: .5 per term
Prerequisite: Geometry or consent of department chair

Course Outline/Calendar

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|---------|--|
| Term 1: | Data and linear representations Numbers and functions Systems of linear equations and inequalities Matrices Quadratic Functions Series and Patterns |
| Term 2: | Exponential and Logarithmic Functions Polynomial Functions Rational and Radical Functions Counting Principles and Probability |

Text/Other Required Materials/Resources

Title: Algebra 2
Author: James E. Schultz, Wadel Ellis Junior, Kathleen A. Hollowell, Paul A. Kennedy
Publisher: Prentice Holt, Rinehart, Winston (2003)

Instructional Procedures & Support

Students are expected to bring all supplies to class every day including the textbook, a notebook, pencil and graphing calculator. Students are expected to participate in class discussions and in small group discussions. Written assignments will be given daily and should be completed before the next class period. Good attendance and punctuality are essential for success in this course.

Classroom Management Procedures

1. Students are expected to be in class and on time.
2. All tardies will result in a classroom consequence.
3. All unexcused absences will be dealt with according to the school attendance policy.
4. Students are responsible for completing make-up work in a timely manner

Assessment Plan

Daily Practice/Projects/Spreadsheet - 10%
Quizzes/Tests - 70% (or Quizzes 30% and Tests 40%)
Final Exam - 20% Notes may **not** be used on the final.

Grading System

Grades will be determined by the DCSD Grading Scale.

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|--------|---|
| 100-90 | A |
| 89-80 | B |
| 79-70 | C |
| 69-60 | D |
| 59-0 | F |