

Algebra 1

Syllabus

2008-2009

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To be successful in this class, a student should have completed 8th grade math or Pre-Algebra with a C or higher.

Course Syllabus

This course contains subject material to enhance a student's understanding of arithmetic and to introduce a student to Algebra. Further study will include an introduction to area, equations, and ratios. Students will also explore the graphs of non-linear functions. Students will also learn about graphing quadratic functions and the power of the quadratic formula.

Course Objectives

At the conclusion of this course, students will be expected to know the following topics outlined by the California framework:

- 01) Use basic arithmetic operations and Know about opposites, reciprocals, roots, fractional powers, and exponents
- 02) Solve equations and inequalities and Solve multi-step word problems
- 03) Simplify expressions, Graph linear equations and Able to derive linear equations using the point-slope formula
- 04) Understand parallel and perpendicular lines and the relationship to the slope
- 05) Solve two equations with two unknowns graphically and Be able to combine like terms
- 06) Factor 2nd & 3rd degree polynomials; identifying the difference of squares and perfect square trinomials
- 07) Simplify rational polynomials and Operate rational expressions
- 08) Solve quadratic equations by factoring or completing the square and Solve rate, work, and percent mixture problems
- 09) Determine whether a relation is a function, Identify the domain and range and Determine if a relation is a function by its graph
- 10) Know quadratic formula & how to prove it and Use the quadratic formula to find roots & to solve quadratic equations
- 11) Graph quadratic functions & their roots and Use quadratic formula or factoring to find zero, one, or two points where the graph crosses the x-axis
- 12) Apply the quadratic formula to solve motion problems with gravity
- 13) Know simple aspects of a logical argument (inductive & deductive, hypothesis & conclusion, and counterexamples)
- 14) Prove using properties of numbers

Instructional Strategies: Instructional strategies may include, but are not limited to: lecture, small group activities, various writing assignments, the use of a Tool-Kit, portfolios, and student presentations. (**REVIEW, PREVIEW, PERFORM**).

Textbook: Students WILL NOT be issued a text book to take home. However, text books will be available to check out *if approved by the teacher and the administrator or counselor.*

Grading Scale: 90%-100% = A 80%-89% = B 70%-79% = C 60%-69% = D 0%-59% = F based on test and quiz scores and completion of assignments and/or projects.

Credit Policy: Students will receive 1 credit for every twelve hours worth of assignment.

Class work Policy: Each student will complete at least one hour worth of work in class otherwise he/she will not get any credit for the day. Late work will not be accepted *except approved by the teacher and the administrator or counselor.*

Homework Policy: Homework will be assigned to students as packet of various hour worth of credits based on length and rigors.

Extra Credit Policy: Extra credits will be done in a **CONTRACT** only.

Absent/Make-Up Policy: Make-up assignments will be given to a student only *if approved by the teacher and the administrator or counselor.* Make-Up assignments will not be accepted (*the last minutes*) two days prior to deficiency and/or report card day.

I have read the syllabus and understand it well.

Student name: _____ Student signature: _____ Date: _____

Parent name: _____ Parent signature: _____ Date: _____