

Saddlebrook Preparatory School

Algebra 1 Honors - Syllabus

2004 – 2005

Instructor: Mr. Dom Gualtieri (Mr.G)
Email: dgualtieri@saddlebrookresort.com

Course Description

This course prepares the student in building a solid foundation of algebraic skills and concepts. The student is equipped with algebraic tools for successful problem-solving. These applications provide the necessary background for all advanced courses in mathematics.

Textbook

Algebra 1- Glencoe

Course Objectives

After successfully completing this course, the student will be able to:

1. Describe the set of real numbers and major subsets.
2. Identify and describe the concepts of equality and order.
3. Translate between mathematical and verbal expressions.
4. Simplify mathematical expressions.
5. Solve linear and quadratic equations with one variable.
6. Graph linear expressions using a number line.
7. Factor polynomials.
8. Solve systems of linear and quadratic equations with two variables.
9. Illustrate the value of algebra in real life situations.

Course Outline Plan

Algebra 1 Honor students will complete Chapter 13 in addition to the twelve chapters assigned to the regular Algebra 1 class. Additional homework and assignments follow by quarter.

Quarter 1 --- Chapters 1 – 3

Enrichment Masters (Glencoe – Algebra 1) for enhancing student critical thinking for application and problem solving will be employed. These enrichment project titles follow:

Four Digits Problem	Tower of Hanoi	Puzzling Primes
Latin Squares	Solution Sets	The Conditional Statement
Closure	Properties of Operations	Figurate Numbers
Intersection and Union	The Digits of Pi	Equivalent Sets
Rounding Fractions	Tangram Puzzles	Convergence & Divergence

Quarter 2 --- Chapters 4 - 6

Mathematics! The Queen and Servant of the Sciences!

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Counterexamples	Formulas	Equations with no solutions
Identities	Division by Zero	Angles of a Triangle
Using Equations	Diophantine Equations	Other Kinds of Means
Scale Drawings	A Curious Construction	Modern Art
Compound Interest	Using Percent	Partnerships

Quarter 3 --- Chapters 7 – 9 and 10.1 thru 10.3

Enrichment Masters (Glencoe – Algebra 1) for enhancing student critical thinking for application and problem solving will be employed. These enrichment project titles follow:

Coordinate Geometry & Area	Dissection Puzzles	Taxicab Graphs
Composite Functions	Polynomial Functions	Treasure Hunt with Slopes
Pencils of Lines	Inequalities with Triangles	Properties of Inequalities
Consecutive Integer Problems	Curious Circles	Absolute Value Functions
Graphing a Trip	Ideal Weight	Arithmetic Series

Quarter 4 --- Chapters 10 - 13

Enrichment Masters (Glencoe – Algebra 1) for enhancing student critical thinking for application and problem solving will be employed. These enrichment project titles follow:

Geometric Vanishing Acts	Describing Regions	Circular Areas
Circular Volumes	Patterns with Powers	Converting Metric Units
Rep-Tiles	Counting-Off Puzzles	Geometric Series
Powers of Binomials	Special Polynomial Products	Finding GCF by Euclid

Materials

1. A Student Math Portfolio for maintaining homework, classwork, and other course materials as detailed under Student Expectations.
2. Pencils with erasers – no pens will be allowed. Please have two sharpened ones ready each day when you get to class.
3. Calculator – the TI-30 is a good one to use but not necessary.
4. Assigned textbook.

Grading Scale

100 – 90 = A

89 – 80 = B

79 – 70 = C

69 – 60 = D

59 – 0 = F

Assessment

<input type="checkbox"/> Student Math Portfolio (Homework)	25%
<input type="checkbox"/> Tests & Quizzes	60%
<input type="checkbox"/> Enrichment Masters	5%
<input type="checkbox"/> Math Application Process Project(s)	10%

Student Expectations

1. Each student should maintain a Student Math Portfolio which may be either a three-ring binder or a regular notebook with Sections or Separation Dividers for:
 - Homework Assignments (completed and corrected)
 - Classwork Assignments (completed and corrected)
 - Class Notes
 - Tests and Quizzes
 - Special Projects
 - Math Disciplinary Write-Ups and Warnings
2. Each document in each section of the Student Math Portfolio should be arranged by date starting with the first assignment. Mr. G may randomly select a student's Portfolio for inspection and adherence to standards at any time during the class period.
3. Prior to commencing any written classwork or homework assignments, each student is expected to review the appropriate class notes and reading/reference materials. The Student Math Portfolio, sharpened pencils, ruler, and assigned math textbook should be with the student during math class.
4. Upon arrival to class, each student is to enter quietly; immediately sit at her or his assigned seat; open their text and Student Math Portfolio to the appropriate page. Each student should remain quiet throughout the class period, speaking only when called upon by Mr. G.
5. Throughout the class period, each student will adhere to the Rules and Regulations set forth in the most current Saddlebrook Preparatory School "Student-Parent Handbook 2004/2005". Mr. G will not tolerate disrespect between a student or a teacher, nor will he tolerate disrespect between one student and another.

Contract Understanding

As a student at Saddlebrook Preparatory School, I, the undersigned, have read and understand the contents of Mr. G's **Algebra 1 Honors - Syllabus** and I promise to make every effort to adhere to these standards in my pursuit for knowledge and of mathematics. I will maintain the Student Math Portfolio doing my homework and classwork diligently. I will use the Saddlebrook Parent-Student Handbook as my guide in adhering to the school rules and regulations. I am especially aware of the need to act in a professional and adult manner during class and throughout the school day. I understand that mutual respect towards teachers and students is mandatory.

It is with this understanding that I sign below:

Student Signature: _____ **Date:** _____

Please provide me with the following information for communicating to both you and your parent (guardian).

Student Email Address: _____

Parent or Guardian Email Address: _____

Parent or Guardian Name (printed): _____