

## Algebra I

- Patterns and Sequences
- Rational Numbers
- Square Roots
- Properties of Algebra
- Solving Equations
- Proportions
- Probability
- The Coordinate Plane
- Relations and Functions
- Slope, Midpoint, and Distance of Lines
- Graphing Linear Equations
- Linear Inequalities
- Systems of Equations
- Monomials and Polynomials
- Scientific Notation
- Geometry (Area and Volume)
- Exponential Functions
- Factoring and Quadratic Formula

## Geometry

Investigate the following:

- Coordinate Plane
- Using Formulas
- Measuring Segment
- Midpoints and Congruence
- Exploring Angles / Triangles
- Exploring Parallelograms
- Simplifying Radicals
- Inductive Reasoning
- If / Then Statements
- Inequalities for Sides / Angles

## Geometry, continued ...

- Inequalities for Sides / Angles
- Squares, Rhombi, Trapezoids
- Using Proportion
- Parallel Lines
- Parts of a Circle
- Parts of Similar Triangles
- Angles, Arcs, and Chords
- Tangents and Angle Measures
- Tessellations

## Math Models

The Math Models with Applications curriculum is designed to further develop, practice and implement concepts begun in algebra and geometry. Through hands-on, real-life applications, students will be given a greater opportunity to master higher-level applications and to develop more fully quantitative reasoning skills.

## Algebra II

- Investigate linear changes and their meanings
- Identify / Interpret linear graphs
- Solve and graph absolute value functions
- Compare parallel, perpendicular, correlation, domain and range
- Construct / Interpret circle, bar and line graphs

## Algebra II continued...

- Solve, derive and formulate linear equations
- Solve quadratics by graphing, factoring, synthetic division, completing the square and quadratic formula
- Simplify rational expressions
- Graphing parabolas and conics
- Communicate graphical ideas & make conclusions using tools.
- Review and apply geometry concepts and measurement to algebraic word problems that relate to real world problems.
- Trigonometric Ratios
- Solve logarithmic, exponential and square root equations

## (AP) Statistics

(Advanced Placement) Statistics is equivalent to a one-semester, introductory, non-calculus based college course in statistics. The course is designed to introduce the major concepts and tools for collecting, analyzing, and drawing conclusions from data while preparing students to successfully complete the College Board examination given in May. Integrating activities and projects, the course is designed to be enjoyable and relevant as well as challenging.

## Infinity Project

The Infinity Project is designed to complement existing math and science credits. Requirements are Algebra II and one science credit. Students learn firsthand how to use math and science to create and design a variety of exciting technologies that focus on topics such as: the Internet, cell phones, and electronic music.

## Pre-Calculus

In Pre-Calculus, students continue to build on their previous mathematical knowledge and experiences. Students use functions as well as symbolic reasoning to connect ideas in Analytical Geometry, Trigonometry, and College Algebra. Students use a variety of representations, tools, and technology to model functions and equations and solve real-life problems. In the spring semester, concurrent credit is received for College Algebra through TVCC.

## Calculus I and II

Calculus I is taken in the fall semester and Calculus II is taken in the spring. This is a course that receives concurrent credit through TVCC. Calculus is a prerequisite and building block for majors such as architecture, business, science, mathematics, medicine and engineering.

### Math Faculty Background and Interests:

**Chris Caronna** graduated from Howard Payne University. He is the athletic trainer, and handles all the sports medicine needs of the district. He is currently in his 12<sup>th</sup> year of teaching and enjoys playing golf and fishing.

**Lewis Hamilton** received his Bachelor's degree from Fort Lewis College in Durango, CO and a Master's from Adams State College in Alamosa, CO. He taught math in Farmington, NM and San Juan College before moving to Texas. He is now in his 38<sup>th</sup> year of education. His hobbies include painting, camping, and flying radio-controlled model aircraft.

**Heather Holloway** received her B.A. from UT-Dallas in 2005. This is her second year of teaching. She will be teaching World History and Algebra I, plus coaching volleyball, basketball and track.

**Eddie Schieffer** graduated from Howard Payne University. He is currently in his 11<sup>th</sup> year of public education and is also the UIL coordinator for the high school. He enjoys serving at church, traveling, playing percussion, and spending time with his wife and two children.

**Marsha Stone** received her Bachelor's degree and Master's degree from University of California at Los Angeles. She taught algebra and AP Statistics in Tyler before joining the math department at Eustace High School. She enjoys traveling, gardening, reading and spending time with her husband and four children.

# Eustace High School ***BULLDOGS***

## THE DEPARTMENT OF MATHEMATICS

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Lewis Hamilton  
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Eddie Schieffer  
Marsha Stone