Honors Algebra 2
2015 – 2016
Mr. Byrd

- Course Description
  Honors Algebra 2 emphasizes the power and beauty of mathematics through the development and application of extended algebraic concepts and skills with the use of technology or graphing calculators. Honors Algebra 2 introduces the notion of functions in relation to linear and quadratic equation concepts. It also extends the study of functions to include polynomials, exponential and logarithmic functions as well as trigonometric functions. It also includes the study of geometric representation of equations of quadratic functions (conics); systems of equations with the use of linear algebra; and extends the study of number systems to complex numbers. All concepts will be emphasized as they would be used in mathematics, chemistry, business, genetics and physics.

- Calendar

Chapter	Estimated Starting Dates
1 - 3	August 13
5	August 31
6	September 21
7	October 21
8	November 11
EXAM #1	
9	January 4
10	January 27
11	February 22
13A	March 23
13B	April 25
EXAM #2	

- TESTS
Tests will be given after each chapter; exams where indicated.

- PROJECTS
Projects may be assigned each semester which will involve math applications and possibly research.

- CALCULATORS
A graphing calculator is required for this course.
Required: TI-84 Plus, TI-84 Silver

Year End Objectives
Honors Algebra 2

By the end of Honors Algebra 2, the student should be able to:

1. Solve problems involving systems of equations in two or three variables, graphically, algebraically, technologically and by using matrices.

2. Perform four fundamental operations on real and complex numbers.

3. Factor or simplify rational expressions.

4. Use the relationship of the slopes and point to graph lines and solve equations.

5. To use scatter plots in predicting future outcomes with the assistance of technology.

6. Collect and analyze various sets of data.

7. Solve quadratic equations over the set of real and complex numbers manually and with technology.

8. Identify and graph quadratic relations as a circles, ellipses, hyperbolas and parabolas manually and with the use of a graphing calculator.

9. Sketch graphs of and find solutions for quadratic-linear of quadratic-quadratic systems of equations manually and with the use of a graphing calculator.

10. Sketch graphs of polynomials and find roots, asymptotes, critical points, and other characteristics.

11. State equivalent exponential and logarithmic equations.

12. Apply exponential and logarithmic properties to solving problems.

13. Apply trig functions to the solution of problems.

14. Develop, analyze, and use circular trigonometry.

15. Sketch the graphs of trig functions.

Honors Precalculus Placement

Minimum Entrance Requirements: A "B-" or better both semesters in Honors Algebra 2