**RIPLEY HIGH SCHOOL**

**Algebra 2 (3rd Hour)**

**Course Syllabus – School Year 2019-2020**

**Instructor Information**

**Teacher:** Carolyn Lunsford **School Phone:** (918) 372-4245

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Course Title: Algebra 2

Course Description: Advanced topics in equation and inequality solving, linear relations and functions, matrices, polynomials, quadratic and polynomial functions, conic sections, and expressions. This is the most advanced math class required for graduation.

Prerequisite: Algebra I and Geometry

Course Objectives

* Solve and graph inequalities and equations using a variety of methods.
* Solve relations and functions and graph them on the coordinate plane.
* Solve systems of equations and inequalities in two and three variables.
* Solve problems using matrix logic.
* Simplify expressions with polynomials, radicals, complex numbers, and rational exponents.
* Solve and graph quadratic functions.
* Apply the quadratic formula.
* Factor square roots, monomials, binomials, and trinomials.
* Perform long division and synthetic divisions of polynomials.
* Write and solve equations for circles.
* Apply the Remainder and Factor Theorems.
* Solve problems using direct, joint, and inverse variation.
* Interpret scatter plots and write equations for lines of fit.
* Solve open sentences involving absolute value.
* Use a graphing calculator to perform all of the above.
* Prepare for the End-of-Instruction test.
* Prepare for and pass the ACT (college entrance exam), given in October, December, February, and April.
* Prepare for Algebra III or College Algebra.

**Textbook and Materials**

* **Textbook:** enVision Algebra 2 by Pearson (2018). Online resources are at www.pearsonrealize.com.
* **Materials Required for class:**

scientific calculator with trigonometric functions (mine will be for in class use **only**)

notebook filler paper

tab index dividers

3” X 5” note cards

3 ring notebook binder (1½ or 2”)

graph paper

carry-all zipper pocket to fit 3 ring binder

pencils for daily assignments, highlighter

1 package of AAA batteries for calculators used in class

**Course Policies**

* **Grading Policy:** Quizzes, worksheets and assigned problems will be given a point value according to the number of problems assigned. I will be emphasizing the student’s ability to analyze a problem and justify their process and answer. Students will be required to show work to receive credit. Students will keep track of all notes, assignments and tests in a notebook. Notebooks will be due at the end of each chapter. Chapter, Midterm and Semester Tests will be worth 100-200 points. An assignment outline will be handed out at the beginning of each chapter detailing all scheduled assignments, quizzes and tests.
* **Late Work:** Students will be required to complete assignments daily and are strongly encouraged to turn them in promptly. Late work is accepted only if we are on that chapter, but will be worth 50%.
* **Class Attendance:** When a student is absent for any reason, it is the student’s responsibility to ask for the work that was missed. The student then has one day for each day gone to complete the work, which is the Student Handbook policy.
* **Progress Reports:** Grades will be averaged weekly and reports sent or mailed home at the end of each chapter. Parent signatures will be required on all progress reports for a grade.
* **Classroom Rules**
* **Be prepared** - be on time and bring your materials and homework.
* **Be respectful** - of other people, their property and school property.
* **No food or drinks** - water only in the classroom.
* **Cell phone use** - must be off and put away unless requested by teacher.
* **Use a pencil** - for all assignments.
* **Discipline:** Respect is a requirement. Any behavior that takes away from the learning atmosphere will be handled with the following discipline plan:
  1. Student – Teacher Conference
  2. Parent – Student – Teacher Conference (may be a phone call)
  3. Referral to the Principal

**Exception:** Any violation against school policy will be immediately referred to the principal.

**Tutoring:**  Students may schedule with me to come in before school, during lunch or after my afternoon bus route as needed.

**State Test:** All 11th grade students will be required to take a math test at the end of the school year to ensure that they have mastered the Oklahoma Academic Standards. This test will include Algebra 1, Geometry and Algebra 2 concepts.