KH. CAROLINE BOLTON
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413-277-5972
Office Hours — available most times via e-mail/text.
For personal appointment call or e-mail to arrange.

COURSE DESCRIPTION:

Algebra is the study of relationships between known and unknown quantities and the concepts arising from them. This course is a continuation of the concepts studied in Algebra I and also covers a considerable amount of geometry. Time is spent developing geometric concepts and writing proof outlines. Students completing this Algebra 2 curriculum will have studied the equivalent of one semester of informal geometry. Applications to other subjects such as physics and chemistry, as well as real-world problems, are covered, including gas laws, force vectors, chemical mixtures, and percent markups. Set theory, probability and statistics, and other topics are also included.

TOPICS COVERED:

- graphical solution of simultaneous equations
- scientific notation
- radicals
- roots of quadratic equations including complex roots
- properties of real numbers
- factoring
- inequalities and systems of inequalities
- logarithms and antilogarithms
- conic sections
- exponential equations
- basic trigonometric functions
- geometric proofs
- algebra of polynomials
- vectors in polar and rectangular form
- algebraic word problems

REQUIRED TEXTS AND RESOURCES:

Saxon Math Algebra 2
Scientific Calculator
**GRADING:** To determine your final grade in the course, I will calculate your percentage by dividing your total earned points by the total points possible. These will be converted to letter grades as follows:

90-100% = A    80-89% = B    70-79% = C    65-69% = D    < 65% = F

Faculty assess achievement of the student and assign grades according to a collegial GPA: 4 (A, excellent), 3 (B, above average), 2 (C, average), 1 (D, below average), 0 (F, requirements not met).

**GRADING BREAKDOWN**

Classroom Participation: 50%

Course Assignments: 25%

Tests: 25%

**ATTENDANCE:**

Lack of attendance could affect participation and final assessment by the teacher. The virtual classrooms are available to any students with internet access. We attempt to record all video calls to make them available for students who are absent. The recorded videos are made available for enrolled students to review when absent. If you are absent, it is YOUR responsibility to make up the assignments and/or tests when you return. Absent students can watch the recording of the class to catch up with the discussion and learn the homework assignments. If you do not make up your assignments within one week, they will turn into zeros.

**CLASSROOM EXPECTATIONS:**

1. Arrive to class on time
2. Be prepared
3. Respect your classmates and teacher
4. Strive for excellence in your work
5. Be responsible for your actions
6. No eating, drinking, cell phones, or extra electronics permitted during class time
7. Communicate any difficulties with the class in a timely way so that issues can be addressed as quickly as possible

**ASSIGNMENT SUBMISSION:** Assignments are to be submitted via the online portal for the class.