

Kolbe Academy Home School

HIGH SCHOOL ALGEBRA II with GEOMETRY *Saxon Algebra 2*

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COURSE TITLE: Algebra II with Geometry

COURSE DESCRIPTION:

The following course covers the basics of Algebra II and quite a bit of Geometry. The Saxon series integrates Geometry throughout their Algebra I, Algebra II, and Advanced Mathematics books. Students looking for a more substantial course in Geometry should use Jacob's Geometry prior to beginning this course. Summa Cum Laude diploma candidates should be completing this course no later than Grade 10 in order to ensure that Calculus be completed in the 12th grade.

SCOPE AND SEQUENCE:

1. Absolute value
2. Percent
3. Pythagorean theorem
4. Substitution
5. Scientific notation
6. Area
7. Trinomial factoring
8. Chemical compounds
9. Abstract fractional equations
10. Radical equations ideal gas laws quadratic formula force vectors slope formula discriminant number word problems

SKILLS TO BE DEVELOPED:

- The fundamental aspects of problem-solving
- Use of diagrams
- Familiarity with the concepts and procedures of algebra.

DIPLOMA REQUIREMENTS:

Summa Cum Laude diploma candidates are required to follow the Kolbe Core course (K) track outlined in this Algebra II with Geometry course plan. ***Magna Cum Laude*** and ***Standard*** diploma candidates may choose to pursue the (K) designation, but are not required to do so, and instead the parent has the option of altering the course plan as desired. ***Summa*** students must complete 4 years of mathematics during their high school course of study including the equivalent of Algebra I, Geometry, Algebra II, and Pre-Calculus (or higher). For a Summa student planning to use Saxon for their high school course of study, this means completing at minimum, the entirety of the *Saxon Advanced Math* program (meaning completing the entire *Saxon Advanced Math* text). ***Magna*** students must complete 3 years of mathematics during their high school course of study including Algebra I, Geometry, and Algebra II (or higher). For a Magna student planning to use Saxon for their high school course of study, this means completing at least through the Kolbe Advanced Math I course plan which covers a little over half of the *Saxon Advanced Math* book. ***Standard*** diploma students must complete 2 years of mathematics including Algebra I. Please see below for specific course titles, quarterly reporting requirements and transcript designations for Algebra II with Geometry.

REQUIRED SAMPLE WORK:

Designation*		K
Course Title**	Algebra II with Geometry	Algebra II with Geometry
Quarter 1	1. Any written sample of work	1. Completed Saxon Test 7
Quarter 2	1. Any written sample of work	1. Completed Saxon Test 15
Quarter 3	1. Any written sample of work	1. Completed Saxon Test 23
Quarter 4	1. Any written sample of work	1. Completed Saxon Test 32

*Designation refers to designation type on transcript. K designates a Kolbe Academy Core course.

**Students who have already taken a separate Geometry course (i.e. Jacobs Geometry) or who plan to do so next year, should use a course title of just "Algebra II."

If the student wishes to have the course distinguished on the transcript with a (K) as a Kolbe Academy Core course, please be sure to send the correct exams and components each quarter for verification as specified above. **If no designation on the transcript is desired, parents may alter the lesson plan and any written sample work is acceptable to receive credit for the course each quarter.** If you have any questions regarding what is required for the (K) designation or diploma type status, please contact the academic advisory department at 707-255-6499 ext. 5 or by email at advisors@kolbe.org.

COURSE TEXT: *Saxon Algebra 2* (2007, 3rd Edition)

COURSE PLAN METHODOLOGY:

Saxon advises that students complete all of the problems in the Saxon Algebra II program. Saxon uses a spiral methodology, meaning that many problems in the lessons review concepts learned in past lessons. This is especially helpful for students who tend to forget concepts soon after they are learned. Some students may be able to skip some of these review problems that occur in the lesson if they have mastered the technique. The fourth quarter of this course allows extra time for reviewing prior to testing since the most number of concepts will appear on these tests. Students who do not feel they need the extra review time may work ahead and finish the course early.

◆◆◆ **FIRST QUARTER** ◆◆◆

WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
2	Lesson 6	Test 1	Lesson 7	Lesson 8	Lesson 9