

What is the typical sequence of math courses taken by college-bound students?

College bound students who have taken Algebra I in the 8th grade typically take Geometry in 9th, Algebra II in 10th, PreCalculus in 11th and an upper level math in 12th such as Calculus or Statistics.

What if my student did not take Algebra I in 8th grade?

Students who have not taken Algebra I in 8th grade should do so in 9th grade. They will still have room to complete the typical college-bound math sequence with Geometry in 10th, Algebra II in 11th, and PreCalculus in 12th.

What are the options if a student is not ready for Algebra I until 9th grade, but would like to get to Calculus in 12th grade?

In this case, students can either double up in 10th grade and do Geometry and Algebra II in the same year, or they may opt to use a more advanced paced course in the 11th grade that combines Algebra II and PreCalculus into a one year course, allowing room for Calculus in the 12th grade.

What math courses must a student take if he plans to pursue the Summa Cum Laude diploma?

Summa Cum Laude students must graduate with 40 math credits (4 years) including Algebra I, Geometry, Algebra II, and PreCalculus or *higher*.

Do Summa students need to pursue Honors in math?

No. Summa Cum laude students may opt to pursue Honors in science or math when applicable, but are not required to do so. They are required, however, to follow the Kolbe Academy course plan to receive the Kolbe Core Course (K) designation if they do not wish to pursue Honors. (See individual course plan for details).

What math courses must a student take if he plans to pursue the Magna Cum Laude diploma?

Magna Cum Laude students must graduate with 30 math credits (3 years) including Algebra I, Geometry, and Algebra II or *higher*. Many students will opt for a fourth year of math as well.

What math courses must a student take if he plans to pursue the Standard diploma?

Standard diploma students must graduate with 20 math credits (2 years) including the equivalent of Algebra I.

What math courses do you offer as honors courses?

Honors Geometry (Jacobs), Honors Algebra II/Trig (Foerster), Honors PreCalculus (Saxon), Honors Calculus I and II (Saxon).

What options are there for elective math courses?

Parents may design their own elective math course or take advantage of the community college for more advanced courses. If you use the community college, be sure to enroll your child in a course that is considered more advanced than the high school level math course already completed. Courses that are most often done at a community college include PreCalculus, Calculus I, Calculus II, and Statistics.

Which math program is right for my student?

Students who have not used Saxon in the past should generally not opt to use it in high school. Students who have excelled with Saxon in middle school might consider using it through high school. Saxon does not offer the type of application work that Jacobs and Foerster offer, which should be an important consideration for a student interested in pursuing math or science. The most important consideration in choosing a math program is to find out what method will work best for your student and which program offers the best resources for your needs as a parent and teacher. Individual situations should be discussed with a Kolbe Academy Academic Advisor.

I noticed that Saxon does not have a Geometry book. What does this mean for my student?

The Saxon math program integrates Geometry across the Algebra I, Algebra II, and Advanced Math books, with the majority of Geometry falling in the Algebra II book. Students should be prepared to complete through about half of the Saxon Advanced Math book to insure that all Geometry concepts are covered. Alternatively, parents may opt to do a full year Geometry course with their student as well, though this is not necessary for Geometry credit.

What constitutes the equivalent of Geometry and Pre-Calculus if a student is using Saxon?

Students must complete through Saxon Advanced Math I (through Lesson 60) to be considered finished with their Geometry credits. Students must complete through Saxon Advanced Math II (Lessons 61-125) to be considered finished with their PreCalculus credits. Saxon Advanced Math in its entirety may be done over the course of 2 years for a total of 20 math credits.

I want colleges to know that my child did Geometry; how do you handle course titles if we use Saxon?

Course titles are listed as underlined: For Saxon Algebra I: Algebra I; for Saxon Algebra II: Algebra II with Geometry; Saxon Advanced Math I: Algebra III with Geometry; Saxon Advanced Math II: PreCalculus. For students doing Saxon Advanced Math in one year, the course title is reflected as PreCalculus with Geometry. For students who opt to use a full year Geometry course in addition to the Saxon program, the course titles will then omit the word Geometry.

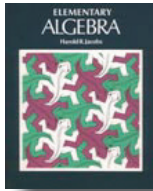
We've already completed Saxon Algebra I, is it too late to switch to another program?

We recommend trying to stick with one program throughout the student's high school course of study to ensure that no holes occur in the student's math education. However, switching after Saxon Algebra I should incur very minimal holes, so it is doable. Switching after Saxon Algebra II requires quite a bit more juggling to avoid holes, so be sure to contact the Academic Advisor Department if you are considering this route.

Which course plan should I request for the Foerster's Algebra and Trigonometry book?

Most students will feel more comfortable using the Foerster book over a two-year scope. Therefore, most parents should request the Algebra II course plans for Foerster first, and request PreCalculus for the 2nd year of study with this book. Students who are adept in math, who would like honors math credit, or who would like to combine Algebra II and PreCalculus into one year, should request the Algebra II/Trig course plans for Foerster.

For order of courses, see previous page.

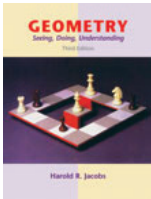


Harold Jacob's Elementary Algebra

Harold Jacobs, 1979

This text is a traditional approach to Algebra 1. Harold Jacob's style is very conversational—students will find the text very engaging. This text can be used after Saxon 8/7 with pre-Algebra if a student has done well in that course.

Student Book	T4100	\$72.00
Teacher's Manual	T4100A	\$35.00
*Syllabus, Course Plan, Tests	C8M-JAC	\$45.00



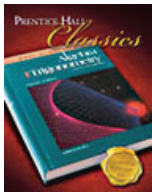
Geometry: Seeing, Doing, Understanding

Harold Jacobs, 2003

Provides a traditional approach to geometry. Jacobs style is very conversational, and even students who are not excited by math, will find this book engaging with concepts explained clearly. He provides many sample problems within the lessons that are actual examples of SAT problems, and every Chapter provides a section on algebra review for the student's benefit.

This course may be used for a regular college preparatory geometry course, or an Honors level geometry course. This course can be taken after using Saxon Algebra I, Jacobs Elementary Algebra, or any other Algebra I program. The Teacher's Guide, 2004, provides solutions to all of the problems that appear in the student text. It also provides lesson plan ideas, teaching support materials and student projects. **PRE-REQUISITE:** any Algebra I course.

Student Book	780p	T4101	\$95.00
Teacher's Guide	524p	T4101A	\$50.00
*Syllabus, Course Plan, Tests		C9M-GEO	\$45.00



Algebra & Trigonometry

Paul Foerster, Prentice Hall

Student text covering topics in Algebra II, Trigonometry, and Advanced Algebra. This book can be used over two years for one year of Algebra II credit and one year of Pre-Calculus credit, or it can be covered in one year for honors Algebra II/Trig credit.

Algebra II/Trigonometry (Honors Optional)

PRE-REQUISITES: Algebra I & Geometry

- * One year course (10 math credits)
- * Prepares student adequately for Calculus I
- * Goes at a very quick pace
- * Honors students do more application work and proofs
- * Chapters 1 - 8, parts of Ch. 9, and Chapters 13-15

Algebra II

PRE-REQUISITE: Algebra I

- * One year course (10 math credits)
- * Prepares student for Pre-Calculus
- * Goes at a leisurely pace
- * Allows student to delve more deeply into applications
- * No honors option
- * Chapters 1 - 8

Pre-Calculus

PRE-REQUISITE: Algebra I, Geometry, and Algebra II

- * One year course (10 math credits)
- * Prepares student for Calculus I
- * Goes at a leisurely pace
- * Allows student to delve more deeply into applications
- * No honors option
- * Chapters 9 - 15
- * Trig covered first in order to cover topics on the ACT or SAT

Student Book	T4102	\$60.00
Solutions Manual	T4102A	\$66.00
Graphing Calculator Lab Manual	T4102B	\$13.00
Kolbe Graph Calc Man AK	T4102C	\$13.00
*Syllabus, Course Plan, Tests	CM-A2TRIG	\$45.00
*Syllabus, Course Plan, Tests	CM-A2	\$45.00
*Syllabus, Course Plan, Tests	CM-PRECALC	\$45.00

Saxon Algebra I Home Study Kit

1997, 3rd edit.

Algebra 1 covers all topics introduced in a first-year algebra course. Topics range from algebra-based real-world problems to functions and graphics; and from algebraic proofs to statistics and probability.

Home Study Kit	T4091	\$54.00
Solutions Manual	T4091A	\$27.00
*Syllabus and Course Plan	C9M-SAX	\$25.00

Algebra 2 Home Study Kit

2007, 3rd edit.

Algebra 2 not only covers all the topics of second-year algebra, but also includes a considerable amount of geometry, including writing proof outlines. When your child completes this course, he or she will have studied the equivalent of one semester of informal geometry. **PRE-REQUISITE:** Saxon Algebra I.

Home Study Kit	577p	T4092	\$55.00
Solutions Manual	296p	T4092A	\$27.00
*Syllabus and Course Plan		C9-ALG2	\$25.00

Advanced Mathematics Home Study Kit

1996, 2nd edit.

Advanced Mathematics interweaves topics from algebra, geometry, trigonometry, discrete mathematics, and mathematical analysis to form a fully integrated text. A rigorous treatment of Euclidean geometry is also presented. Conceptually oriented problems that prepare students for college entrance exams (such as the ACT and SAT) are included in the problem sets. May be done as either a 1 or 2 year course. **PRE-REQUISITE:** Saxon Algebra II.

Home Study Kit	748p	T4098	\$68.00
Solutions Manual	430p	T4098A	\$27.00
*Syllabus and Course Plan		C11M	\$25.00

Calculus Home Study Kit

2007, 2nd edit.

Calculus is designed for prospective math majors in college as well as students preparing for engineering, physics, business analysis, or the life sciences. The text covers all topics normally found in Advanced Placement AB-level calculus program, as well as many topics from a BC-level program. Also included are numerous applications to physics, chemistry, engineering, and business. May be done as a 1 year Honors Calculus I and II course or a 1 year Calculus I course. **PRE-REQUISITE:** Advanced Math, PreCalculus, or equivalent.

Home Study Kit	622p	T4099	\$60.00
Solutions Manual	236p	T4099A	\$27.00
*Syllabus and Course Plan		C12M	\$25.00

DVD in the Classroom!

Jacob's Elementary Algebra DVD

OPTIONAL. Videos of course content - Approximately 12 hours of video following the textbook.

T4100D	\$90.00
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Jacobs' Geometry DVD

OPTIONAL. Videos of course content - Approximately 12 hours of video following the textbook.

T4101D	\$90.00
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Foerster's Algebra & Trigonometry DVD

OPTIONAL. Whiteboard video lessons covering the "classroom presentation" portion of the entire *Foerster's Algebra and Trigonometry* text.

T4102D	\$70.00
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