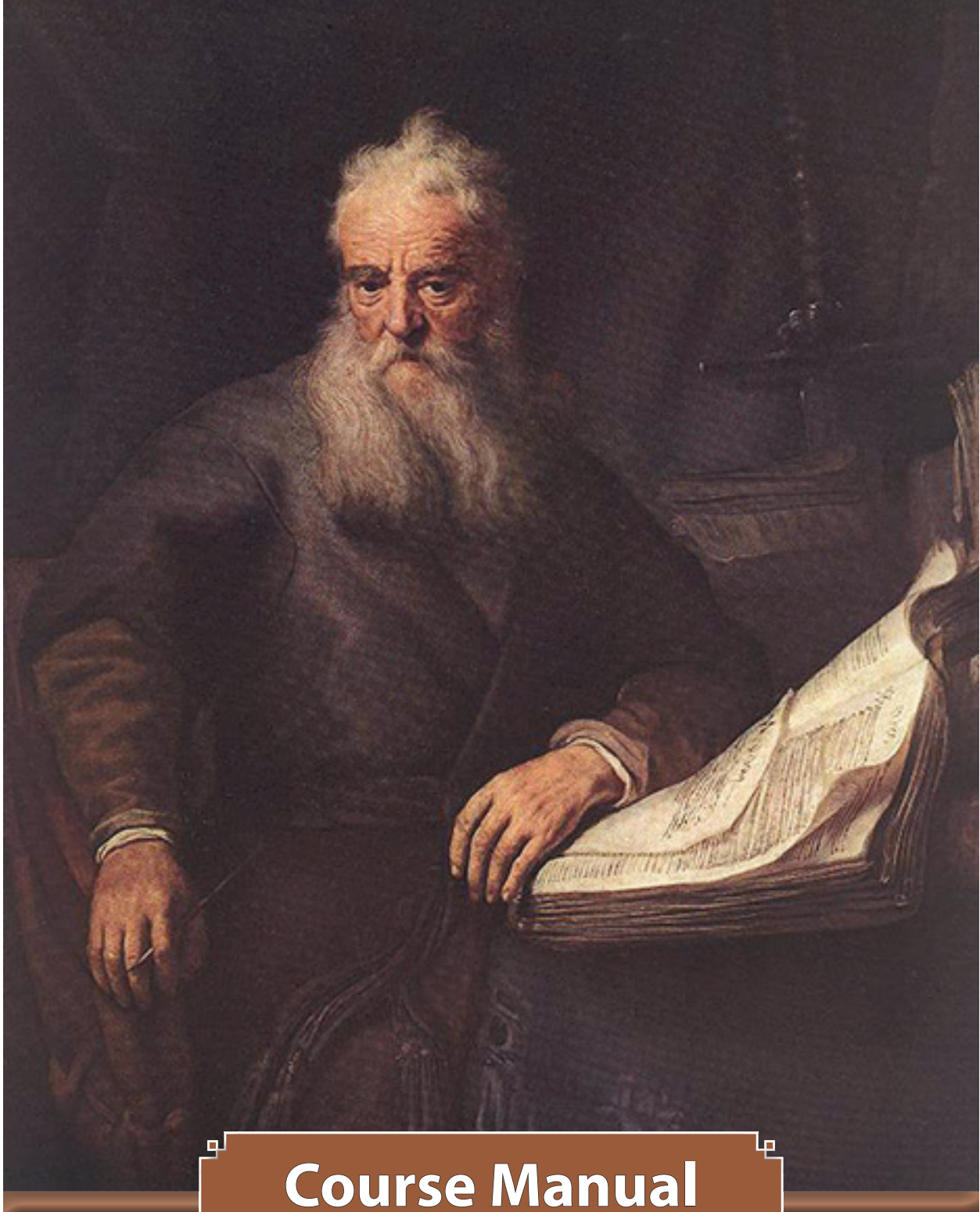




Calculus

SETON HOME STUDY SCHOOL

[Lesson Plan](#) ♦ [Answer Keys](#) ♦ [Tests](#) ♦ [Quarter Report Forms](#)



Course Manual

MAT404_21A

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Revised August 2021

Outer Cover: *Apostle Paul*, Rembrandt

Inner Cover: St. Peter Receiving the Keys from Our Lord (Stained Glass)

REQUIRED COURSE MATERIALS:

Saxon Calculus with Trigonometry and Analytic Geometry, 2nd ed.

Solutions Manual for Saxon Calculus with Trigonometry and Analytic Geometry, 2nd ed.

Graphing Calculator (Texas Instruments TI-83 or TI-84 strongly recommended)

INTRODUCTION

This course covers all the topics normally taught in a two-semester college Calculus course—that is, an AP Calculus AB course. Lessons 1 through 126 of the *Saxon Calculus with Trigonometry and Analytic Geometry* (2nd ed.) textbook are covered. This ensures that all topics included in the 1st edition are also covered in this course.

The Saxon Calculus program has two important aspects: incremental development and continuous practice. *Incremental development* refers to the division of concepts into small, easy-to-understand pieces that are taught over several lessons. Thus, a major concept is not taught in only one lesson, but rather is developed over time. Students are not expected to fully understand the complete concept the first time it is taught. *Continuous practice* means that fundamental skills and concepts are practiced and reviewed throughout the course.

Based on our experience in working with students using this general teaching method, we have modified it somewhat for this course so that students can make more efficient use of their time. Although students are normally encouraged to work out all *Problem Set* problems after each textbook lesson, for this course only specific Problem Set problems have been assigned. In general, we have attempted to include all problems related to the specific lesson just studied and to include only one problem related to each of the previous three lessons. We hope this modification will reduce the time that the students must devote to each lesson and the Problem Set problems. The one exception to this modification is for the first two lessons and problem sets, since these serve as an essential review of some foundational concepts that the student has previously learned.

TESTING AND GRADING GUIDELINES

Tests are divided into odd-numbered tests (which are parent graded) and even-numbered tests (which are Seton graded). The tests and the Quarter Report Forms are located at the end of this course manual.

Odd-numbered tests are to be used as semi-practice tests and are parent graded. Each test contains 10 problems. Students should work out these problems on separate sheets of paper, showing all the steps of the solution to each problem, since partial credit may be given. Students may redo these tests (by simply redoing only the missed problems) as many times as necessary to master the material covered on the tests. Parents should submit the final test grade of this process to Seton for each test. Parents can grade these tests using the *Answer Key for Odd-Numbered Tests* after this lesson plan. Step-by-step solutions to all the problems on each odd-numbered test are also available online. To access these solutions, go to the Seton website (www.setonhome.org), log on to your MySeton page, click on Courses, and scroll down to Calculus. Then click on the open yellow-pad icon.

All parent-graded assignments are **optional**. To send these grades to Seton, parents may either record these grades in Section A of the appropriate Quarter Report Form and mail it to Seton at the end of the quarter or submit these grades to Seton online at any time. To submit grades online, go to the Seton website (www.setonhome.org), log on to your MySeton page, click on Courses, and scroll down to Calculus. Then click on “view” under the correct quarter. You will see a yellow box for the home grade. To enter a grade, click on “Enter Parent Grades.” This will open a new blank box in place of the yellow one under “Grade.” Type the grade in this box, and click on “Submit Parent Grades.” **If you submit parent grades to Seton, then 25% of the student’s grade for this course will be based on those parent grades. If you do not submit parent grades, then the student’s total grade for this course will be based solely on the Seton-graded tests.**

Even-numbered tests are Seton graded. Each test contains 10 problems. Students should work out these problems on separate sheets of paper, showing all the steps of the solution to each problem, since partial credit may be given. Students should record their final answers on the *test answer sheet* (provided in this course manual). Students may redo each test *once* (by simply redoing only the missed problems). The final test grade will be the average of the original test grade and the redone test grade. **For each test, parents should send Seton both the test answer sheet and the separate solution sheets showing the student’s work.** Parents may submit these materials to Seton in two ways:

1. **By mail:** If you choose this option, please mail the test answer sheets and test solutions sheets for all the tests in each quarter to Seton at the end of the quarter, along with the appropriate Quarter Report Form.
2. **By scanning:** You may scan and upload the test answer sheets and test solutions sheets to the Seton website (www.setonhome.org). Log on to your MySeton page, click on Courses, scroll down to Calculus, and then click on the icon for uploading work.

Both odd-numbered and even-numbered tests should be taken according to the enclosed Testing Schedule (see p. 11 of this course manual).

GRAPHING CALCULATOR

A graphic calculator is required for this course. Saxon provides specific lessons involving calculator use, and it is important that this tool be understood in both its power and its limitations. Although most problems in the textbook and on the tests require classical step-by-step solutions, students are encouraged to use a calculator to check those solutions. We strongly recommend that students use a Texas Instruments TI-83 or TI-84 graphing calculator, since Seton can provide needed assistance with their use. To this end, a set of applicable keystroke-by-keystroke procedures for each model is provided on the Seton website. To access these procedures, log on to your MySeton page, click on Courses, and scroll down to Calculus. Then click on the open yellow-pad icon. **These procedures may be printed out and used without any restrictions (including during tests).**

CONCEPTUAL BUILDING BLOCKS

These are simplified block diagrams covering the specific concepts taught in each lesson assigned. To access these building blocks, log on to your MySeton page, click on Courses, and scroll down to Calculus. Then click on the open yellow-pad icon. **The Calculus Conceptual Building Blocks may be printed out and used without any restrictions (including during tests).**