



*A Guide to Core Courses in the
Department of Mathematical Sciences*



The Department of Mathematical Sciences offers a wide range of courses that may serve in Area A in the Core Curriculum. These include: MATH 1101 (Introduction to Mathematical Modeling), MATH 1111 (College Algebra), MATH 1112 (Trigonometry), MATH 1113 (Precalculus), and MATH 1441 (Calculus I). We also offer MATH 1232 (Survey of Calculus), a prerequisite for entry into majors in the College of Business Administration. This guide is intended to assist you in determining what class is best for you.

MATH 1101 (Introduction to Mathematical Modeling) is an applied approach to the topics covered in our College Algebra class. Students use graphical, numerical, symbolic, and verbal techniques to describe and explore real-world data and phenomena. Most degree programs in the College of Liberal Arts and Social Sciences accept MATH 1101 in Area A of the Core Curriculum. This course also serves as a prerequisite for STAT 2231 (Introduction to Statistics I), a course required by many majors, including Political Science, Justice Studies and Psychology. Prerequisite: Two Years of high school algebra or the equivalent.

MATH 1111 (College Algebra) is intended for students planning to pursue a major that requires mathematics courses at the level of Trigonometry, Survey of Calculus or above, who need a review of algebra before moving on to higher level math courses. This course is more appropriate for majors in the College of Science and Technology, the College of Business Administration and some majors in the College of Health and Human Sciences. Prerequisite: Two Years of high school algebra or the equivalent.

*(***If your major does not require a second mathematics course, then you may want to consider taking MATH 1101 or MATH 1111 in spring semester.***)*

MATH 1112 (Trigonometry) is a review of material covered in a typical high school trigonometry class. The course is intended for students who must take Calculus I (MATH 1441) for their major, but who need to strengthen their skills in trigonometry before doing so. This course is an appropriate prerequisite for Calculus I for many students.

MATH 1113 (Pre-Calculus) is required for students participating in certain programs in the School of Technology (SoT) as an Area A alternative to Calculus I. It serves as a *rapid* review of topics from algebra and trigonometry for students who are not prepared for Calculus I. It is a 4-hour course that meets the accreditation requirements of many SoT programs.

MATH 1232 (Survey of Calculus) is a prerequisite course for students planning to earn a degree in the College of Business Administration as well as the College of Information Technology (Information Systems, Information Technology). Students with a solid algebra background from high school may begin in this course. Otherwise, the student should take College Algebra in Area A and Survey of Calculus in Area D of the Core Curriculum. The course focuses on calculus from the viewpoint of business and economics applications, which involve no trigonometric functions, so Trigonometry is not a prerequisite.

MATH 1441 (Calculus I) is required by most majors in the College of Science and Technology and several others around campus (like Computer Science). Differentiation and integration are covered. Students should have a strong background in algebra and trigonometry before taking this course.

*(** See Reverse Side for Math Placement Exam and AP Exam Information **)*

Math Placement Exam

If you went on-line and took the Math Placement Exam, then you can use your score to assist you in determining where to begin in the mathematics curriculum based on the following scores.

(<http://cost.georgiasouthern.edu/math/mathplacement/mathplacement.html>)

Course	Qualifying Score
MATH 1112 Trigonometry	9
MATH 1113 Pre-Calculus	12
MATH 1232 Survey of Calculus	13
MATH 1441 Calculus I	14

Students who earn a score of 8 or less on the exam should enroll in College Algebra (MATH 1111) or Introduction to Mathematical Modeling (MATH 1101).

Course Credit for AP Calculus Exams

Some entering freshmen take AP Calculus in high school. Below, is a chart that shows how these scores may be used to earn course credit at Georgia Southern.

AB Exam

Score	Course Credit (Hours)
3	MATH 1113: Pre-Calculus (4) <i>or</i> MATH 1112: Trigonometry (3)
4 or 5	MATH 1441: Calculus I (4)

BC Exam

Score	Course Credit (Hours)
3 or 4	MATH 1441: Calculus I (4)
5	MATH 1441: Calculus I (4) <i>and</i> MATH 2242: Calculus II (4)

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