MAC 1105 College Algebra (3) Prerequisite: MAT 1033 or appropriate score on the mathematics placement test. This is a rigorous introduction to the math concepts necessary for successful study of MAC 2233 or MAC 1140. This course is primarily a conceptual study of functions and graphs, their applications and of systems of equations and inequalities. Linear, quadratic, rational, absolute value, radical, exponential and logarithmic functions will be investigated. The use of a graphing calculator is integrated throughout the course.


Stand-alone MML code: ISBN: 9780134755549

MAC 1114 Trigonometry (3) Prerequisite: MAC 1105 or equivalent. Topics include the study of trigonometric functions and applications, analytic trigonometry, vectors, trigonometric form of complex numbers, parametric equations, polar coordinates and equations and conic sections. This course is intended for students whose major requires the calculus sequence. Use of a graphing calculator is integrated throughout this course.


WA: ISBN: 9781337652186

MAC 1140 Precalculus Algebra (3) Prerequisite: MAC 1105 or equivalent. Topics include the study of the following functions: polynomial, rational, radical, absolute value, exponential and logarithmic. An emphasis will be placed on solving applications by mathematical modeling. Other topics include matrices and systems of equations and inequalities. This course is intended for students whose major requires the calculus sequence. Use of a graphing calculator is integrated throughout this course.


Student Solutions: ISBN: 9780321979582

MAC 2233 Applied Calculus (3) Prerequisite: MAC 1105. Topics in this course include limits, differentiation and integration of algebraic, exponential and logarithmic functions, integration techniques and related applications in the management, business and social sciences. This course is not designed for engineering or science majors.


MAC 2311 Calculus with Analytic Geometry I (4) Prerequisite: MAC 2147 or MAC 1140 and MAC 1114. This is the first of a three-course sequence consisting of MAC 2311, 2312 and 2313. This course includes the study of limits, differentiation, and integration of algebraic and trigonometric functions.


MAC 2312 Calculus with Analytic Geometry II (4) Prerequisite: MAC 2311. This course is a continuation of MAC 2311, with differentiation and integration of logarithmic, exponential and trigonometric functions, polar coordinates, improper integrals and infinite series.
MAC 2313 Calculus with Analytic Geometry III (4) Prerequisite: MAC 2312. This course is a continuation of MAC 2312, with vectors in 2 and 3 space, and differentiation and integration of functions of several variables.

MAD 2104 Discrete Mathematics Prerequisite: MAC 1105. A proof-oriented approach and applications of propositional logic, sets, functions, relations, combinatorics, graphs and trees.

MAP 2302 Differential Equations (3) Prerequisite MAC 2312. Topics in this course include methods of solution of ordinary differential equations, linear equations and systems of linear equations, methods which may include operators, undetermined coefficients, variation of parameters, Laplace Transforms, series solutions and boundary value problems.

MAS 2103 Linear Algebra (3) Prerequisite: MAC 2311 or permission of instructor. This course is designed for students who need a survey course in linear algebra. Fundamental concepts of linear algebra and matrix theory are introduced.

MAT 0018 Pre-algebra College Preparatory (4)(CP) Three hours lecture and one hour laboratory per week. Student’s test scores and/or past performance indicate a need for training in the basic skills of arithmetic and algebra. Topics include operations with integers, fractions, decimals and percent, geometric figures and their measures, and prealgebra topics including properties of rational numbers, operations of rational numbers, simplification of polynomials and equation-solving techniques. Additional fees are required.

MAT 0028 Elementary Algebra College Preparatory (4)(CP) Three hours lecture and one hour laboratory per week. Prerequisite: MAT 0018 with a “C” or better or sufficient score on placement exam. This course includes basic algebra concepts and skills that are needed for success in higher level courses. Topics include operations with real numbers, polynomials, rational expressions, graphing, radicals, factoring and solving linear and quadratic equations and applications. Additional fees are required.

MAT 0057 Pre-College Math Modules (3)(CP) This course is designed to strengthen arithmetic, geometric, and algebraic skills. Successful completion of this course requires mastery of the material in nine modules covering arithmetic, algebra through quadratic equations, radical expressions, and linear graphing techniques.


★ MAT 1033 Intermediate Algebra (4) Prerequisite: MAT 0024 or equivalent. This course includes the study of real numbers, linear and quadratic equations, linear inequalities, systems of linear equations, exponents, polynomials, factoring, rational expressions and related equations, radicals, quadratic formula, completing the square, complex numbers, absolute value, graphing and applications.


★ MGF 1106 Topics in Mathematics (3) Prerequisites: MAT 1033, STA 1001, equivalent test scores, or exempt status. This course meets Area II of the A.A. and most of the A.S. general education requirements. Topics include set theory, logic, measurement, geometry, counting principles, probability and statistics.


**Textbook + MML:** ISBN: 9780134115764

**MML:** ISBN: 9780134112312

**MML + Workbook:** ISBN: 9780134212340

**Textbook + MML + Workbook:** ISBN: 9780134196015

★ MGF 1107 Liberal Arts Mathematics (3) Prerequisites: MAT 1033, STA 1001, equivalent test scores, or exempt status. This course meets Area II for A.A. and most A.S. general education requirements. The course provides an opportunity for students to see mathematics used in ways not emphasized in traditional algebra courses. This course includes the study of voting strategies, graph theory, sequences and numerical patterns, and financial mathematics.


**Textbook + MML:** ISBN: 9780134115764

**MML:** ISBN: 9780134112312

**MML + Workbook:** ISBN: 9780134212340

**Textbook + MML + Workbook:** ISBN: 9780134196015

★ STA 1001 Pathway to Statistics (3) Prerequisite: MAT 0018 or equivalent. STA 1001 provides the foundation for further statistical study. This course introduces basic statistical concepts and focuses on data analysis and quantitative reasoning. This course emphasizes both written and verbal communication of statistical concepts and helps prepare the student for inferential statistics courses. STA 1001 is designed for students who do not intend to major in math, science, computer science, business, etc. Please check your degree requirements before enrolling in this course. Students who complete this course will be prepared to enter STA 2023, MGF 1106, and MGF 1107. This course will not serve as a prerequisite for MAT 1033 or MAC 1105. Course performance standards are available online at listed at the end of the syllabus and in the mathematics labs.

**Textbook:** Pathways To Statistics, Bennett, Briggs, Triola, 1st edition, Pearson

**Textbook:** ISBN: 9781323237267

★ STA 2023 Elementary Statistics (3) Prerequisite: MAT 1033, STA 1001, or the equivalent. MGF 1106 and MGF 1107 cannot be used to satisfy the prerequisite requirement. This course meets Area II requirements for both AA General Education Requirements and AS General Education Requirements. This course is a study of fundamental statistical topics including normal and binomial distributions, measures of central tendency and variation, confidence interval, hypothesis testing, sampling techniques, simple linear regression, correlation and nonparametrics.
A. Bradenton-Lakewood Ranch Campuses

MyLab Statistics with Pearson e-Text: 9780134870113

B. Venice Campus

Looseleaf Text with Connect: ISBN: 9781260005578
ALEKS: ISBN: 9781259620980