

Cypress College Transfer-Level Math Course Descriptions Fall 2019

MATH 040 C Intermediate Algebra 4 Units

Prerequisite: MATH 020 C or Algebra I with a grade of "C" and the assessment process. Proof of prerequisites is required.

Term hours: 72 lecture. This is a second course in algebra that includes the topics of sets, axioms for the real number system, polynomials, solutions of linear and quadratic equations and inequalities, exponents and radicals, linear, quadratic, exponential and logarithmic functions and their graphs, and systems of equations. This course requires the use of a non-graphing scientific calculator. Students may not receive credit for both MATH 040 C and MATH 041 C. (AA GE)

MATH 041 C Combined Algebra I and II 6 Units

Prerequisite: MATH 015 C or pre-algebra with minimum grades of "C", and the assessment process. Proof of prerequisites is required.

Term hours: 108 lecture. This course is designed for students who would like to complete Elementary and Intermediate Algebra in one semester. It covers linear, quadratic, and absolute value equations and inequalities, rational and radical equations, operations with polynomials, radicals, and rational expressions, systems of linear equations, and linear, quadratic, exponential, and logarithmic functions and their graphs. Students may not receive credit for both MATH 040 C and MATH 041 C. Students who have completed MATH 020 C are allowed to take MATH 040 C or MATH 041 C. (AA GE)

MATH 044 C Basic Accelerated Math 3 Units

Term hours: 108 laboratory. This is a self-paced Math course in which students can progress from Basic Math through Intermediate Algebra in one semester. Students will take an assessment at the beginning of the course to determine their starting point and study plan. Students will then show mastery of topics using ALEKS, a Web-based assessment and learning system. Pass/No Pass. May not be taken more than once.

MATH 110 C Math for Prospective Teachers 4 Units

Prerequisite: MATH 030 C and MATH 040 C or MATH 041 C or Algebra II with minimum grades of "C" and the assessment process. Proof of prerequisites is required.

Term hours: 72 lecture. This course is an introduction to problem solving processes and strategies. Students explore the development and analysis of the structure and operations of the real number system. Students focus on concept and process development using appropriate models, manipulatives, and activities. This course is designed for prospective elementary and middle school teachers. This course requires the use of a non-graphing scientific calculator. (UC/CSU, AA GE, CSU GE, C-ID: MATH 120)

MATH 115 C Finite Mathematics 4 Units

Prerequisite: MATH 040 C or MATH 041 C or Algebra II with a grade of "C" or better and the assessment process. Proof of prerequisites is required.

Term hours: 72 lecture. This course covers graphing, finance, matrices, linear systems, linear programming, combinatorial analysis, probability, and descriptive statistics. Applications to the fields of business, economics, biological sciences, and behavioral sciences are emphasized. This course requires the use of a graphing calculator comparable to the TI-83/84. (UC/CSU, AA GE, CSU GE, IGETC, C-ID: MATH 130)

MATH 120 C Introduction to Probability and Statistics 4 Units

Prerequisite: MATH 040 C or MATH 041 C or Algebra II with a grade of "C" or better and the assessment process or a minimum grade of "C" in MATH 024 C. Note: Students majoring in Business, Engineering, Science or Math should be taking MATH 040 C or MATH 041 C rather than MATH 024 C. Proof of prerequisites is required.

Term hours: 72 lecture. This course is an introduction to the elements of statistical analysis which includes an intuitive approach to the study of probability and probability distributions, measures of central tendency and dispersion, sampling techniques, parametric and non-parametric tests of hypotheses, point and interval estimation, linear regression and correlation. Applications to business, biological sciences, and social sciences are emphasized. Students will use computer software and/or graphing calculators for statistical analysis of various topics. This course requires the use of a graphing calculator comparable to the TI-83/84. Duplicate credit not granted for MATH 120HC. (UC Credit Limitation/CSU, AA GE, CSU GE, IGETC, C-ID: MATH 110)

MATH 130 C Survey of Calculus 4 Units

Prerequisite: MATH 040 C or MATH 041 C or Algebra II with a grade of "C" or better and the assessment process. Proof of prerequisites is required.

Term hours: 72 lecture. This course is an introduction to calculus with an emphasis on solution techniques and applications rather than abstract theory. It includes elements of analytic geometry, limits, derivatives, integration as a summation process, exponential and logarithmic functions, integration of basic forms, techniques of integration, an introduction to multi-variable calculus, and curve sketching, with applications from the life sciences, engineering technology, economics, and the social sciences. This course requires the use of a graphing calculator comparable to the TI-83/ TI-84. Credit by Examination. (UC Credit Limitation/CSU, AA GE, CSU GE, IGETC, C-ID: MATH 140)

MATH 141 C College Algebra 4 Units

Prerequisite: MATH 030 C and MATH 040 C or MATH 041 C with grades of "C" or better or plane geometry and Algebra II with grades of "C" or better and the assessment process. Proof of prerequisites is required.

Term hours: 72 lecture. This is one of two courses to prepare students for the calculus sequence. The topics covered include a review of the fundamentals of algebra; rational, exponential and logarithmic functions; theory of equations and zeros of polynomial functions; systems of equations including linear and quadratic systems; sequences and series; mathematical induction; permutations; combinations; binomial theorem; analytic geometry; conic sections; and miscellaneous topics. (UC/CSU, AA GE, CSU GE, IGETC)

MATH 142 C Trigonometry 4 Units

Prerequisite: MATH 141 C or the equivalent of Math Analysis or Precalculus with a grade of "C" or better.

Term hours: 72 lecture. This is a one-semester course in trigonometry designed to prepare students for the study of calculus. The topics to be covered include the following: measurements of angles, trigonometric and inverses trigonometric functions and their graphs, solving trigonometric equations, verifying trigonometric identities, solutions of triangles, complex numbers, polar coordinates, vectors, DeMoivre's Theorem, and parametric equations. (CSU, AA GE, CSU GE)

MATH 150AC Calculus I 4 Units

Prerequisite: MATH 141 C and MATH 142 C or trigonometry and math analysis/precalculus with grades of "C" or better and the assessment process. Proof of prerequisites is required.

Term hours: 72 lecture. This course is an introduction to mathematical analysis. It includes the study of analytic geometry, functions and limits, continuity, differentiation and integration. Problem work includes applications involving derivatives, definite integrals and indefinite integrals. Credit by Examination. (UC Credit Limitation/CSU, AA GE, CSU GE, IGETC, C-ID: MATH 210, C-ID: MATH 900S = MATH 150AC + 150BC)