
Math (MATH)

MATH 100 **Pre-Algebra** (3)

Class Hours: 54 Lecture

Prerequisite(s): Appropriate placement exam score (Required, Previous or concurrent).

Advisory(s): ENG 100

Transfers to: Not transferable

Pre-Algebra

MATH 100 is a pre-algebra course designed to prepare students for MATH 61 (Elementary Algebra). Topics will include the basics and applications of rates, ratios, proportions, percentages (including simple and compounded interest examples), conversions between Imperial and Metric systems, beginning statistics, geometry, simplifying algebraic expressions, solving linear equations in one variable.

MATH 001A **Introduction to Calculus** (5)

Class Hours: 90 Lecture

Prerequisite(s): MATH 015

Transfers to: Transfers to both UC/CSU

C-ID: MATH 210

Introduction to Calculus

Math 001A is an introduction to differential calculus of elementary function (including trigonometric, exponential, and logarithmic). The course covers limits, continuity, derivatives, basic integrals, the fundamental theorem, and applications. (AA/AS, CSU, UC)

MATH 001B **Calculus With Applications** (5)

Class Hours: 90 Lecture

Prerequisite(s): MATH 001A

Transfers to: Transfers to both UC/CSU

C-ID: MATH 220

Calculus With Applications

Math 001B is an introduction to integral calculus. The course covers techniques of integration, applications of integration, improper integrals, polar coordinates, and infinite series. (AA/AS, CSU, UC)

MATH 002A **Multivariate Calculus** (4)

Class Hours: 72 Lecture

Prerequisite(s): MATH 001B

Transfers to: Transfers to both UC/CSU

C-ID: MATH 230

Multivariate Calculus

Math 002A is the study of vector-valued functions, the calculus of functions of more than one variable, partial derivatives, multiple integration, Green's theorem, and Stoke's theorem. (C-ID MATH 220) (AA/AS, CSU, UC)

MATH 002B **Differential Equations** (4)

Class Hours: 72 Lecture

Prerequisite(s): MATH 002A

Transfers to: Transfers to both UC/CSU

C-ID: MATH 240

Differential Equations

Mathematics 002B is the study of ordinary science and engineering. It covers the theoretical aspect of existence of solutions and analytical techniques for obtaining solutions, including series solutions, Laplace transformations and linear systems. (C-ID MATH 240) (AA/AS, CSU, UC)

MATH 003A Linear Algebra I (4)*Class Hours:* 72 Lecture*Corequisite(s):* MATH 001B (Required, Previous or concurrent).*Transfers to:* Transfers to both UC/CSU*C-ID:* MATH 3A

Linear Algebra I

Math 003A is an introduction to the techniques and theory needed to solve systems of linear equations solution techniques cover row reduction, Gaussian elimination, and matrix algebra. Vector space theory includes linear transformations, determinants, eigenvalues and eigenvectors, inner-products, and orthogonality. Students will also study selected applications of linear algebra. (C-ID MATH 250) (AA/AS CSU, UC)

MATH 010A Structure & Concepts in Math I (3)*Class Hours:* 54 Lecture*Prerequisite(s):* MATH 063 or MATH 064*Transfers to:* Transfers to CSU only*C-ID:* MATH 120

Structure & Concepts in Mathematics I

Math 010A is designed for prospective elementary school teachers. The course covers the development of real numbers including integers, rational and irrational numbers, computation, prime numbers and factorization, and problem solving strategies. (C-ID MATH 12) (AA/AS, CSU, UC)

MATH 010B Structure & Concepts in Math. (3)*Class Hours:* 54 Lecture*Prerequisite(s):* MATH 010A*Transfers to:* Transfers to CSU only

Structure & Concepts in Mathematics II

Math 010B is designed for prospective elementary school teachers. The course covers counting methods, elementary probability and statistics. Topics from geometry include polygons, congruence and similarity, measurement, geometric transformations, coordinate geometry, and selected applications. (AA/AS, CSU)

MATH 015 Precalculus (5)*Class Hours:* 90 Lecture*Prerequisite(s):* MATH 063 or MATH 064*Transfers to:* Transfers to both UC/CSU

Precalculus

Math 015 is an intensive course covering those topics traditionally found in the separate courses of trigonometry and college algebra. This course will include in-depth analysis and application of linear, quadratic, polynomial, rational, exponential, logarithmic, trigonometric functions and their graphs, systems of equations, and analytic geometry. (AA/AS, CSU, UC)

MATH 025 Introduction to Statistics

(4)

Class Hours: 72 Lecture*Prerequisite(s):* MATH 063 or MATH 064*Transfers to:* Transfers to both UC/CSU*C-ID:* MATH 110

P/NP

Introduction to Statistics

Math 025 is an introduction to the use of probability techniques, hypothesis testing, and predictive techniques to facilitate decision-making. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square and t-tests, and application of technology for statistical analysis including the interpretation of the relevance of the statistical findings. Applications using data from disciplines including business, social sciences, psychology, life science, health science, and education. (C-ID MATH 110 (AA/AS, CSu, UC)

MATH 045 Contemporary Math

(3)

Class Hours: 54 Lecture*Prerequisite(s):* MATH 063 or MATH 064*Transfers to:* Transfers to both UC/CSU

Contemporary Math

Math 045 is a college level liberal arts mathematics course surveying a collection of topics including Management Science, Social Choice, Statistics and Growth and Symmetry. (Satisfies CSU Fresno Gen. Ed. CORE, Quantitative Reasoning).(AA/AS,CSU,UC)

MATH 052 Statistical Literacy

(4)

Class Hours: 54.00 Lecture | 54.00 Laboratory*Prerequisite(S):* MATH 100*Transfers to:* Not transferable

Statistical Literacy

MATH 052 is an intensive course that prepares students for transfer-level statistics. Topics include modeling with linear functions, evaluating expressions related to statistical formulas, graphical representation of data, numerical descriptive statistics, sampling methods, probability, and discrete probability distributions. This course is appropriate for students majoring in fields other than math, science, computer science, engineering, or business.

MATH 061 Elementary Algebra

(5)

Class Hours: 90 Lecture*Prerequisite(s):* MATH 100, or MATH 101*Transfers to:* Not transferable

P/NP

Elementary Algebra

This is the first course in a two semester sequential elementary and intermediate algebra program. Topics for elementary algebra include arithmetic review, solving linear equations and inequalities in one variable, graphing linear equations and inequalities in two variables, solving linear systems, operations with polynomials, solving equations by factoring, operations with rational expressions, and addition of radical expressions. (AA/AS)

MATH 063 Intermediate Algebra

(5)

Class Hours: 90 Lecture*Prerequisite(s):* MATH 061*Transfers to:* Not transferable

P/NP

Intermediate Algebra

Math 063 is the second course in a two semester sequential elementary and intermediate algebra program. Topics for intermediate algebra include factoring, solving quadratic, rational and radical equations, inequalities, integer and rational exponents, graphing conics, functions, scientific notation, and applications. (AA/AS)

MATH 064 Elementary & Intermediate Alg**(5)***Class Hours:* 90 Lecture

P/NP

Prerequisite(s): MATH 100 or MATH 101*Transfers to:* Not transferable**Elementary and Intermediate Algebra**

Math 064 covers elementary and intermediate algebra in one semester, eliminating the repetitiveness of the traditional two-semester sequence. This course is designed for students who either have had some previous exposure to elementary algebra or have a facility for learning math. This course satisfies the intermediate algebra prerequisite for any transfer level math course.(AA/AS)