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

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: 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.

MATH 001B Calculus With Applications

(5)

Class Hours: 90 Lecture
Prerequisite(s): MATH 001A
Transfers to: 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.

MATH 002A Multivariate Calculus

(4)

Class Hours: 72 Lecture
Prerequisite(s): MATH 001B
Transfers to: 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.

MATH 002B Differential Equations

(4)

Class Hours: 72 Lecture
Prerequisite(s): MATH 002A
Transfers to: UC/CSU
C-ID: MATH 240

Differential Equations

MATH 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.

MATH 003A Linear Algebra I

Class Hours: 72 Lecture

Corequisite(s): MATH 001B (Required, Previous or concurrent).

Transfers to: UC/CSU **C-ID:** MATH 250

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, eigen values and eigenvectors, inner-products, and orthogonality. Students will also study selected applications of linear algebra.

MATH 010A Structure & Concepts in Math I

(3)

(4)

Class Hours: 54 Lecture

Prerequisite(s): MATH 063 or MATH 064 (Required, Previous or concurrent).

Transfers to: UC/CSU **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.

MATH 010B Structure & Concepts in Math.

(3)

Class Hours: 54 Lecture
Prerequisite(s): MATH 010A

Transfers to: CSU

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.

MATH 015 Precalculus

(5)

Class Hours: 90 Lecture

Prerequisite(s0: MATH 063 or MATH 064 (Required, Previous or concurrent).

Transfers to: 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.

MATH 016 Precalculus and Trignometry

(6)

Class Hours: 108 Lecture
Prerequisite(s): MATH 064
Transfers to: UC/CSU

Precalculus and Trignometry

MATH 016 is designed to prepare students for calculus, and includes the study of polynomial, absolute value, radical, rational, exponential, and logarithmic functions, analytic geometry, and polar coordinates. The study of trigonometric functions, their inverses and their graphs, identities and proofs relaed to trigonometric expressions, trigonometric equations, solving right triangles, solving triangles using the Law of Cosines and the Law of Sines, and introduction to vectors.

MATH 025 Introduction to Statistics

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Class Hours: 72 Lecture P/NP

Prerequisite(s): MATH 063, MATH 064, or MATH 052 (Required, Previous or concurrent).

Transfers to: UC/CSU **C-ID:** MATH 110

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.

MATH 045 Contemporary Math

(3)

Class Hours: 54 Lecture

Prerequisite(s): MATH 063 or MATH 064 (Required, Previous or concurrent).

Advisory(s): ENG 001A (Recommended, Previous or concurrent).

Transfers to: 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.

MATH 052 Statistical Literacy

(4)

Class Hours: 54 Lecture | 54 Laboratory

Prerequisite(S): MATH 100

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

P/NP

Prerequisite(s): MATH 100, or MATH 101

Elementary Algebra

MATH 061 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.

MATH 063 Intermediate Algebra

(5) *P/NP*

Class Hours: 90 Lecture Prerequisite(s): MATH 061

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.

(4)

MATH 064 Elementary & Intermediate Alg

(5) *P/NP*

Class Hours: 90 Lecture

Elementary and Intermediate Algebra

MATH 064 is designed for students who require a background of elementary algebra and intermediate algebra before taking further mathematics courses. This course includes the fundamental concepts and operation of algebra with problem solving skills emphasized throughout. Topics include properties of real numbers, solving linear equations and inequalities, graphing linear equations and inequalities, finding equations of lines, polynomials, factoring, simplifying square roots, and solving quadratic equations using the quadratic formula.

MATH 065 Algebra for STEM

(5)

Class Hours: 90 Lecture

Algebra for STEM

MATH 065 is designed to prepare students for precalculus, and includes the study of equations and inequalities, functions, linear functions, polynomial and rational functions, exponential and logarithmic functions, systems of equations and inequalities, and analytic geometry.

MATH 110A Supp CRSE for Struct & Concep

(2)

Class Hours: 36 Lecture

Supp Crse for Struct & Concepts in Math.

MATH 110A is designed as a corequisite support course for students that are concurrently enrolled in the parent course, MATH 010A, and are placed into this course using multiple measures. The parent course is designed for prospective elementary school teachers. This course focuses on the necessary supporting skills for the study of the development of quantitative reasoning and the real number systems and subsystems.

MATH 115 Support Course for Precalculus

(2)

Class Hours: 36 Lecture

Support Course for Precalculus

MATH 115 is designed as a corequisite support course for students that are concurrently enrolled in the parent course, MATH 015, and are placed into this course using multiple measures. It includes content from MATH 015 and from the prerequisite material.

MATH 125 Support CRSE for Intro to Sta

(2)

Class Hours: 36 Lecture

Support Crse for Intro to Statistics

MATH 125 is a corequisite support course for students that are concurrently enrolled in MATH 025. The course is additional support hours designed to enhance the course performance and increase success.

MATH 145 Support Course for Contemp Mat

(2)

Class Hours: 36 Lecture
Support Course for Contemp Mat

MATH 145 is designed as a corequisite support course for students that are concurrently enrolled in the parent course, MATH 045, and are placed into this course using multiple measures. It includes content from MATH 045 and from the prerequisite material.