MATHEMATICS (MATH)

MATH-081 Support for Ideas for Mathematics
1 Unit (LBE 48-54)

This course will provide students with additional support in learning the concepts and gives more time with the instructor to increase the probability of being successful in Math 115. Concepts to be covered include truth table, statistics, probability and working with Venn diagrams. Offered as pass/no pass only.

Corequisite: MATH-115.
Not transferable
Offered as Pass/No Pass Only

MATH-082 Support for College Algebra (formerly Support for College Algebra or Precalculus)
1 Unit (LBE 48-54)

This course covers the topics necessary to be successful in College Algebra. It covers core prerequisite skills, competencies, and concepts from Intermediate Algebra. Topics will include equations and inequalities, linear and non-linear functions, factoring polynomials, complex numbers, as well as graphing functions and conic sections. Offered as pass/no pass only.

Corequisite: MATH-105.
Not transferable
Offered as Pass/No Pass Only

MATH-083 Support for Introduction to Statistics
1 Unit (LBE 48-54)

This course covers the topics necessary to be successful in Math 140. It covers prerequisite material from arithmetic, prealgebra, and algebra. It also covers some of the more basic concurrent material from statistics. Offered as pass/no pass only.

Corequisite: MATH-140.
Not transferable
Offered as Pass/No Pass Only

MATH-084 Support for Precalculus
1 Unit (LBE 48-54)

This course covers topics necessary to be successful in Precalculus. It covers core prerequisite skills from basic trigonometry and algebra. Topics include complex radical and radical expressions, piece-wise functions, conics, evaluating trigonometric and inverse trigonometric functions, and solving logarightmic and trigonometric functions. Offered as pass/no pass only.

Corequisite: MATH-110.
Not transferable
Offered as Pass/No Pass Only

MATH-105 College Algebra
4 Units (LEC 64-72)

This course covers graphing of polynomial, rational and transcendental functions and conic sections, solving of polynomial, rational, exponential and logarithmic equations and related applications, solving of systems of linear equations utilizing determinants, function theory including notation, combination and composition as well as existence and formulation of inverses, sequences and the Binomial Theorem.

Prerequisite: Appropriate Multiple Measures placement or completion of Intermediate Algebra meets the prerequisite for this course.
Transfers to both UC/CSU
C-ID: MATH 151
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-105H Honors College Algebra
4 Units (LEC 64-72)

This course covers graphing of polynomial, rational and transcendental functions and conic sections, solving of polynomial, rational, exponential and logarithmic equations and related applications, solving of systems of linear equations utilizing determinants, function theory including notation, combination and composition as well as existence and formulation of inverses, sequences and the Binomial Theorem.

Prerequisite: Acceptance into the Honors Enrichment Program., Appropriate Multiple Measures placement or completion of Intermediate Algebra meets the prerequisite for this course.
Transfers to both UC/CSU
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-110 Pre-Calculus
4 Units (LEC 64-72)

This course is designed to prepare students for Calculus. The topics covered include a review of selected algebra topics: polynomial, rational, exponential, and logarithmic functions, conic sections, and sequences and series. The course also introduces students to new topics in analytic trigonometry: trigonometric functions and their graphs and applications.

Prerequisite: MATH-105 (with a grade of C or better) or appropriate placement.
Transfers to both UC/CSU
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-115 Ideas of Mathematics
3 Units (LEC 48-54)

This course covers topics in applications of sets, logic, counting, probability, statistics, finance, and using mathematical models. The mathematical concepts taught in this class emphasize applications and can be used in daily life. The material is suitable for students from all pathways and serves as an introduction to several topics in mathematics.

Transfers to both UC/CSU
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-135 Calculus for Social Science and Business
3 Units (LEC 48-54)

This course covers functions and their graphs, including exponential and logarithmic functions, limits, differentiation and integration with emphasis placed on the application of these concepts to social science, economics, business and management related problems.

Prerequisite: MATH-105 (with a grade of C or better) or appropriate placement into MATH-135.
Transfers to both UC/CSU
C-ID: MATH 140
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-140 Introduction to Statistics
3 Units (LEC 48-54)

This course is an introduction to the concepts, ideas and applications of probability and statistics. The course covers descriptive statistics, elementary probability and combinatorics, probability distributions, the central limit theorem, estimation of population parameters, correlation and linear regression, hypothesis testing including ANOVA. This course includes applications from the fields of business, economics, social sciences, life sciences, engineering, and physical sciences.

Prerequisite: Appropriate Multiple Measures placement or completion of Intermediate Algebra meets the prerequisite for this course.
Transfers to both UC/CSU
C-ID: MATH 110
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-140H Honors Introduction to Statistics
3 Units (LEC 48-54)

This course is an introduction to the concepts, ideas and applications of probability and statistics. The course covers descriptive statistics, elementary probability and combinatorics, probability distributions, the central limit theorem, estimation of population parameters, correlation and linear regression, hypothesis testing including ANOVA. This course includes applications from the fields of business, economics, social sciences, life sciences, engineering, and physical sciences.

Prerequisite: Appropriate Multiple Measures placement or completion of Intermediate Algebra meets the prerequisite for this course., Acceptance into the Honors Enrichment Program.
Transfers to both UC/CSU
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-155 Mathematics for Elementary Teaching (formerly Mathematics for Elementary Teaching I)
3 Units (LEC 48-54)

This course focuses on the development of quantitative reasoning skills through integrated exploration of: sets, number systems up to and including real numbers, arithmetic operations, basic number theory, ratio and proportion, and percent. Emphasis is on comprehension and analysis of mathematical concepts and applications.

Prerequisite: Appropriate Multiple Measures placement or completion of Intermediate Algebra meets the prerequisite for this course.
Transfers to both UC/CSU
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-211 Analytic Geometry and Calculus I
4 Units (LEC 64-72)

This course is the first course in the single-variable calculus sequence. The course covers functions, limits, continuity, differentiation and its applications, an introduction to integration, and the Fundamental Theorem of Calculus.

Prerequisite: MATH-110 (with a grade of C or better) or placement in MATH-211.
Transfers to both UC/CSU
C-ID: MATH 211
C-ID: MATH 900S
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-211H Honors Analytic Geometry and Calculus I
4 Units (LEC 64-72)

This course is the first course in the single-variable calculus sequence. The course covers functions, limits, continuity, differentiation and its applications, an introduction to integration, and the Fundamental Theorem of Calculus.

Prerequisite: Acceptance into the Honors Enrichment Program., MATH-110 (with a grade of C or better) or placement in MATH-211.
Transfers to both UC/CSU
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-212 Analytic Geometry and Calculus II
4 Units (LEC 64-72)

This course is the second course in the single-variable calculus sequence. The course covers the topics of integration, techniques of integration, infinite sequences and series, polar and parametric equations, and applications of integration.

Prerequisite: MATH-211 (with a grade of C or better).
Transfers to both UC/CSU
C-ID: MATH 221
C-ID: MATH 900S
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-212H Honors Analytic Geometry and Calculus II
4 Units (LEC 64-72)

This course is the second course in the single-variable calculus sequence. The course covers the topics of integration, techniques of integration, infinite sequences and series, polar and parametric equations, and applications of integration.

Prerequisite: MATH-211 (with a grade of C or better)., Acceptance into the Honors Enrichment Program.
Transfers to both UC/CSU
C-ID: MATH 221
C-ID: MATH 900S
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-213 Analytic Geometry and Calculus III
5 Units (LEC 80-90)

This course covers vectors in 2 and 3 dimensions, partial derivatives, multiple integrals, volumes and surface areas, line integrals, Green's and Stokes' Theorems.

Prerequisite: MATH-212 (with a grade of C or better).
Transfers to both UC/CSU
C-ID: MATH 230
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-213H Honors Analytic Geometry and Calculus III
5 Units (LEC 80-90)

This course covers vectors in 2 and 3 dimensions, partial derivatives, multiple integrals, volumes and surface areas, line integrals, Green's and Stokes' Theorems.

Prerequisite: MATH-212 (with a grade of C or better)., Acceptance into the Honors Enrichment Program.
Transfers to both UC/CSU
C-ID: MATH 230
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-215 Differential Equations
4 Units (LEC 64-72)

This course is an introduction to differential equations. It introduces theoretical aspects of the differential equations as well as its applications in various disciplines such as engineering and life sciences. It explores existence of solutions, methods of solutions, Laplace transforms, and linear systems.

Prerequisite: MATH-212 (with a grade of C or better).
Transfers to both UC/CSU
C-ID: MATH 240
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-215H Honors Differential Equations
4 Units (LEC 64-72)

This course is an introduction to differential equations. It introduces theoretical aspects of the differential equations as well as its applications in various disciplines such as engineering and life sciences. It explores existence of solutions, methods of solutions, Laplace transforms, and linear systems.

Prerequisite: Acceptance into the Honors Enrichment Program., MATH-212 (with a grade of C or better).
Transfers to both UC/CSU
IGETC Area(s): 2A
CSU Area(s): B4
AA/AS General Education: AA/AS G

MATH-218 Linear Algebra
3 Units (LEC 48-54)

This course covers matrix algebra, matrices and linear equations, determinants, vector spaces, linear transformations, quadratic forms, eigenvalues, eigenvectors, orthogonal matrices, and symmetric matrices. It also examines related topics and applications.

Prerequisite: MATH-211 (with a grade of C or better).
Transfers to both UC/CSU
IGETC Area(s): 2A
CSU Area(s): B4

MATH-299 Special Projects: Math
1-3 Unit (IS 16-54)

Students with previous course work in the program may do special projects that involve research and special study.

Prerequisite: Two Math classes must be completed prior to enrollment; a contract must be completed with the instructor prior to enrollment.
Transfers to CSU only