

# MATHEMATICS (MATH)

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## **MATH 0101 - Suppl Inst for Applied Alg (1 Credit Hour)**

This course serves as supplemental instruction for MATH 1001, Applied Algebra. Instruction is an introductory-level course study of solving equations and inequalities; linear and quadratic function properties, graphs and their applications; polynomial, exponential and logarithmic function properties and graphs. A grade of "C" or better must be earned for the student to have satisfactorily completed MATH 1001 to meet prerequisite for MATH 1005.

Prerequisite(s): None  
(1/0/1)

## **MATH 0105 - Suppl Inst College Algebra Fun (3 Credit Hours)**

This course serves as supplemental instruction used to reinforce the following concepts taught in MATH 1005: solving equations and inequalities; function properties and graphs; inverse functions; linear, quadratic, polynomial, rational, exponential and logarithmic functions with applications; systems of equations.

Prerequisite(s): None  
(3/0/3)

## **MATH 0150 - Suppl Inst for Finite Math (1 Credit Hour)**

This course serves as supplemental instruction for Finite Mathematics. Instruction is an overview of topics in finite mathematics together with their applications and is taken primarily by students of the social sciences, communications, and liberal arts. This course includes linear equations, linear inequalities, linear programming, financial math, sets, counting, permutations, combinations, and introduction to probability and statistics, matrices.

Prerequisite(s): None  
(1/0/1)

## **MATH 1001 - Applied Algebra (3 Credit Hours)**

Prerequisite: MATH 0099; ACT Math 19+; SAT Math 460+; or Compass Algebra 40+. Emphasis on applications involving: solving equations and inequalities; function properties and graphs; linear, quadratic, polynomial, exponential and logarithmic functions. (Math)

Prerequisite(s): ACT Math with a score of 19 or ACCUPLACER NG Algebra QAS with a score of 250 or ACCUPLACER NG Adv Algebra AAF with a score of 200  
Co-requisite(s): MATH 0101  
(3/0/3)

## **MATH 1005 - College Algebra Fundamentals (3 Credit Hours)**

This course is designed as an overview of the study of families of functions and their graphs. Topics covered include in-depth treatment of solving equations and inequalities; function properties and graphs; inverse functions; linear, quadratic, polynomial, rational, exponential and logarithmic functions with applications; systems of equations. This course also includes additional support of algebra fundamentals including operations with exponents, polynomial and rational expressions, and factoring. A student may not receive credit for both MATH 1005 and MATH 1015. (\*Students who have not met the prerequisite requirements, but are eligible for MATH 0099, will be allowed to enroll in this course with the understanding that co-requisite supplemental work in the form of worksheets, watching instructional videos, additional MyMathLab assignments, tutoring, etc. will be assigned and required in order to help support the student in achieving the desired learning outcomes.)

Prerequisite(s): ACT Math with a score of 17 or ACCUPLACER NG Algebra QAS with a score of 255 or ACCUPLACER NG Adv Algebra AAF with a score of 200 or MATH 1001 or MATH 1001A  
(3/0/3)

## **MATH 1015 - College Algebra (3 Credit Hours)**

This course is designed as an overview of the study of families of functions and their graphs. Topics covered include in-depth treatment of solving equations and inequalities; function properties and graphs; inverse functions; linear, quadratic, polynomial, rational, exponential and logarithmic functions with applications; systems of equations.

Prerequisite(s): ACT Math with a score of 21 or ACCUPLACER NG Adv Algebra AAF with a score of 250  
(3/0/3)

## **MATH 1160 - Medical Math (2 Credit Hours)**

This applied mathematics course provides a review for the student who needs to master the fundamental numerical operations of addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. This course also assists the student in acquiring a better understanding of percent, ratio and proportion, and measurements. This course is designed to provide a foundation for enrollment into a health science program and improving proficiency in career preparation courses. An essential part of this course is to utilize the concepts to solve application problems.

Prerequisite(s): None  
(2/0/2)

## **MATH 1175 - Allied Health Algebra (2 Credit Hours)**

Allied Health Algebra is designed to provide basic skills in elementary algebra. The major topics include: operations with rational numbers, simplifying variable expressions, solving equations and inequalities, ratio and proportions, and operations with exponents and polynomials.

Prerequisite(s): None  
(2/0/2)

## **MATH 1200 - Contemporary Math (3 Credit Hours)**

An introduction to topics in contemporary mathematics. Topics may include the theory of finance, perspective and symmetry in art, formal Aristotelian logic, graph theory, probability and odds, statistics, elementary number theory, optimization, numeracy in the real world, and historical topics in mathematics that have influenced contemporary mathematics. (Topics will vary.)

Prerequisite(s): ACT Math with a score of 19 or ACCUPLACER NG Algebra QAS with a score of 250 or ACCUPLACER NG Adv Algebra AAF with a score of 200  
(3/0/3)

**MATH 1500 - Finite Math (3 Credit Hours)**

The course is intended to give an overview of topics in finite mathematics together with their applications, and is taken primarily by students of the social sciences, communications, and liberal arts. Topics include linear equations, linear inequalities, financial math, sets, counting, permutations, combinations, an introduction to probability and statistics, and matrices. Additional topics will include symbolic logic, linear models, and linear programming. (\*Students who have not met the prerequisite requirements listed below, but who are eligible for MATH 0099 or MATH 0099X, will be allowed to enroll in the 4-credit Finite Math course and will be required to complete additional supplemental support tasks both in and out of class. These tasks may include watching additional instructional videos, completing additional practice problems, tutoring, or participation in small group instruction.)

Prerequisite(s): ACT Math with a score of 19 or ACCUPLACER NG Algebra QAS with a score of 250 or ACCUPLACER NG Adv Algebra AAF with a score of 200

Co-requisite(s): MATH 0150  
(3/0/3)

**MATH 1620 - Plane Trigonometry (3 Credit Hours)**

This course is designed as a study of trigonometric functions. Topics include the laws of sine and cosine, the trigonometric functions and their graphs, inverse trigonometric functions, trigonometric identities and equations, and polar coordinate system. Trigonometry and trigonometric functions will be used to model and solve real world applications.

Prerequisite(s): ACT Math with a score of 25 or MATH 1005 or MATH 1015 or ACCUPLACER NG Adv Algebra AAF with a score of 276  
(3/0/3)

**MATH 1650 - Pre-Calculus with Trigonometry (5 Credit Hours)**

This course is designed as a combined course covering advanced algebra and trigonometry. Topics include function properties and graphs; inverse functions; linear, quadratic, polynomial, rational, exponential and logarithmic functions with applications; systems of equations; trigonometric functions and graphs; inverse trigonometric functions; fundamental identities and angle formulas; solving trigonometric equations, triangles with applications; polar coordinate system. MATH 1650 is intended for students who must take MATH 2000 for their major.

Prerequisite(s): MATH 1005 or MATH 1015 or ACT Math with a score of 25 or ACCUPLACER NG Adv Algebra AAF with a score of 276  
(5/0/5)

**MATH 2000 - Calculus (5 Credit Hours)**

This course is designed as the first course in a series of calculus courses. Topics covered include Limits and continuity of functions; introduction of the derivative; techniques of differentiation; Chain rule; implicit differentiation; differentiation of transcendental and inverse functions; applications of differentiation: concavity; relative extrema; maximum and minimum values of a function; optimization; anti-differentiation; definite integrals; Fundamental Theorem of Calculus; areas; applications of definite integrals; work and volume.

Prerequisite(s): MATH 1650 or ACT Math with a score of 28  
(5/0/5)

**MATH 2410 - Elementary Statistics (3 Credit Hours)**

This course is designed as an introduction to statistical reasoning. Topics include graphical display of data, measures of central tendency and variability, sampling theory, the normal curve, standard scores, Student's T, Chi Square, and correlation techniques.

Prerequisite(s): MATH 1005 or MATH 1015 or MATH 1500 or MATH 1500A  
(3/0/3)