

# MATHEMATICS (MATH)

## MATH 001A Calculus

Units: 4

This course is a study of the meaning, computation and analysis of the derivative with an introduction to the integral. Topics include the definitions and analysis of limits, continuity, and differentiability; methods for differentiating polynomial, rational, exponential, logarithmic and trigonometric functions, together with functions represented numerically and graphically; applications of the derivative; and an introduction to the integral. (C-ID MATH 210)

Lecture Hours: 54 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH 012.

Advisory: ENG 001A.

Limitation on enrollment: None

Transfer Status: CSU/UC

Degree Applicable: AA/AS

COD GE: A2 CalGETC: 2

## MATH 001B Calculus II

Units: 4

This course is a study of the meaning, methods and applications of integration and infinite series. Topics include the definition of the definite integral, the Fundamental Theorem of Calculus, techniques of integration, applications of integration, first order separable differential equations, modeling exponential growth and decay, infinite series and approximation of functions using Taylor series with remainder. (C-ID MATH 220)

Lecture Hours: 54 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH 001A.

Advisory: None

Limitation on enrollment: None

Transfer Status: CSU/UC

Degree Applicable: AA/AS

COD GE: A2 CalGETC: 2

## MATH 001P Calculus Preparation

Units: 4

This course is for students in science, mathematics, engineering, and technology programs that require calculus. The course covers a combination of topics that have greatest impact on student success in calculus courses through active learning. These topics include but are not limited to plane geometry, inductive & deductive reasoning, modeling with functions, analytical reading with a focus on reading and applying proofs, and study skills.

Lecture Hours: 54 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH 049 or qualifying placement.

Advisory: None

Limitation on enrollment: None

Transfer Status: CSU

Degree Applicable: AA/AS

COD GE: None CalGETC: None

## MATH 002A Multivariate Calculus

Units: 4

This course extends the concepts of differentiation and integration introduced in the first two semesters of calculus to functions of several variables. Topics include solid Euclidean geometry, vector algebra in 3 dimensions, line and surface integrals, multiple integration in rectangular, cylindrical and spherical coordinates, extreme values, parameterized space curves and surfaces, divergence, directional derivatives, gradients, Gauss', Green's and Stokes' theorems. (C-ID MATH 230)

Lecture Hours: 54 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH 001B.

Advisory: None

Limitation on enrollment: None

Transfer Status: CSU/UC

Degree Applicable: AA/AS

COD GE: A2 CalGETC: 2

## MATH 002B Linear Algebra

Units: 4

This course is a standard introductory course in linear algebra. Topics include vectors in  $R^n$ , matrices and systems of linear equations, determinants, vector spaces, linear independence, linear transformations, eigenvalues, eigenvectors, and diagonalization of certain quadratic forms. (C-ID MATH 250)

Lecture Hours: 54 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH 001B.

Advisory: None

Limitation on enrollment: None

Transfer Status: CSU/UC

Degree Applicable: AA/AS

COD GE: A2 CalGETC: 2

## MATH 002C Ordinary Differential Equations

Units: 4

This is a standard introductory course in differential equations and their applications in modeling dynamic phenomena. Topics include first, second and higher order differential equations; systems of first order equations, linear, homogeneous and nonhomogeneous differential equations; solutions by power series; numerical methods, Laplace transforms; and applications. (C-ID MATH 240)

Lecture Hours: 54 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH 001B.

Advisory: None

Limitation on enrollment: None

Transfer Status: CSU/UC

Degree Applicable: AA/AS

COD GE: A2 CalGETC: 2

## MATH 005 Trigonometry

Units: 5

This course is the first of a two semester sequence preparing students for calculus. In this course, students will study functions with an emphasis on the trigonometric functions along with topics in analytic geometry. Topics will include a review of plane and coordinate geometry, functions including function notation, transformations and inverses, definitions and graphs of the trigonometric functions, modeling periodic behavior, solving triangle problems with the Law of Sines and Cosines, the conic sections, parametric equations and vectors.

Lecture Hours: 90 Lab Hours: None Repeatable: No

Grading: Letter

**Prerequisite:** MATH 049 or qualifying placement.

Advisory: ENG 001A, Advisory Corequisite: MATH 355A.

Limitation on enrollment: None

Transfer Status: CSU

Degree Applicable: AA/AS

COD GE: A2 CalGETC: None

**MATH 009 Business Calculus**

**Units: 4**

Presents a study of the techniques of calculus with emphasis placed on the application of these concepts to business and management-related problems. The applications of derivatives and integrals of functions including polynomials, rational, exponential and logarithmic functions are studied. Students in STEM majors are advised to take MATH 001A and MATH 001B instead.

Lecture Hours: 54    Lab Hours: 54    Repeatable: No  
Grading: Letter

**Prerequisite:** MATH 010 or MATH 012.

Advisory: ENG 001A.

Limitation on enrollment: None

Transfer Status: CSU/UC\*                      Degree Applicable: AA/AS

COD GE: A2      CalGETC: 2

**MATH 009S Business Calc Support - Credit**

**Units: 0.5**

This is a course that supports students who are enrolled in business calculus. It consists of hands-on assignments and guided study that focuses on functions and their rates of change; the graphs and general behavior of polynomial, rational, exponential, and logarithmic functions; algebra skills required in business calculus; limits; derivatives; integrals; reading and writing related to mathematics and its business application; and preparing students for assessments in a business calculus course.

Lecture Hours: None    Lab Hours: 27    Repeatable: No

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None                      Degree Applicable: NAA

COD GE: None      CalGETC: None

**MATH 010 College Algebra**

**Units: 4**

This is a function oriented course that includes an examination of the general concept of a function and function notation, as well as an in depth investigation of polynomial, rational, exponential, and logarithmic functions, particularly their equations, graphs, and behavior. Other topics include the binomial theorem, conic sections, and matrices as they apply to systems of linear equations. (C-ID MATH 150) Note: All students now can enroll in this transfer-level course without completing posted requisites. Please refer to AB 705 (under How do I enroll in courses at COD?) or see a Counselor.

Lecture Hours: 54    Lab Hours: 54    Repeatable: No

Grading: Letter

**Prerequisite:** MATH 049 or qualifying placement.

Advisory: ENG 001A, Advisory Corequisite: MATH 351.

Limitation on enrollment: None

Transfer Status: CSU/UC\*                      Degree Applicable: AA/AS

COD GE: A2      CalGETC: 2

**MATH 010S College Algebra for STEM Support**

**Units: 0.5**

This course is designed to support students learning college algebra while earning additional units. The focus of this course is to review core prerequisite skills and concepts with an emphasis on critical thinking and problem solving to increase likelihood of success in College Algebra. This course builds quantitative literacy, connecting learning strategies and mathematical knowledge necessary for success in learning college algebra.

Lecture Hours: None    Lab Hours: 27    Repeatable: No

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None                      Degree Applicable: NAA

COD GE: None      CalGETC: None

**MATH 011 Math Concepts for Elementary School Teachers - Number Systems**

**Units: 3**

This course covers mathematical topics needed for elementary school teaching with a focus on quantitative reasoning, problem solving, and communication. Topics include structure of the real number system, numeration systems, computation algorithms, problem solving strategies, and elementary number theory. The course meets requirements for elementary school teacher certification. (C-ID MATH 120) Note: All students now can enroll in this transfer-level course without completing posted requisites. Please refer to AB 705 (under How do I enroll in courses at COD?) or see a Counselor.

Lecture Hours: 36    Lab Hours: 54    Repeatable: No

Grading: Letter

**Prerequisite:** MATH 045.

Advisory: ENG 001A, Advisory Corequisite: MATH 061 or MATH 361 or MATH 374.

Limitation on enrollment: None

Transfer Status: CSU                      Degree Applicable: AA/AS

COD GE: C4b      CalGETC: None

**MATH 011B Math Concepts for Elementary School Teachers - Geometry**

**Units: 3**

This course is the second course in a one-year sequence in the study of mathematical concepts needed for teaching elementary school mathematics with an emphasis on geometry and measurement. This course also promotes an appreciation of the importance of logical thinking and applications of mathematics in problem solving and critical thinking. It studies the understanding and explanation of basic mathematical concepts and the connections between them. Analytical reading and problem solving are required for success in this course. The course meets requirements for elementary school teacher certification.

Lecture Hours: 36    Lab Hours: 54    Repeatable: No

Grading: Letter

**Prerequisite:** MATH-011.

Advisory: ENG 001A or ENGL C1000 or ENGL C1000E or, college-level composition or equivalent, MATH 061 or MATH,361 or MATH 374.

Limitation on enrollment: None

Transfer Status: CSU                      Degree Applicable: AA/AS

COD GE: A2      CalGETC: None

**MATH 012 Pre-calculus**

**Units: 5**

This course is the second in a two-semester sequence preparing students for Calculus. In this course, students will extend the concept of a function to polynomial, rational, exponential and logarithmic functions as well as studying analytic trigonometry. Topics include recognizing, graphing and solving equations and word problems involving polynomial, rational, exponential and logarithmic functions, trigonometric identities, inverse trigonometric functions, and solving trigonometric equations.

Lecture Hours: 90    Lab Hours: None    Repeatable: No

Grading: Letter

**Prerequisite:** MATH 005 or qualifying placement.

Advisory: Advisory Corequisite: MATH 355B.

Limitation on enrollment: None

Transfer Status: CSU/UC\*                      Degree Applicable: AA/AS

COD GE: A2      CalGETC: 2

**MATH 013 Liberal Arts Math****Units: 4**

This course is designed for social science and liberal arts majors. It emphasizes applications of mathematics in the areas of management science, probability and statistics, social choice and decision making, game theory, and consumer finance. Topics include sets, logic & counting, probability, linear systems and linear programming, scheduling, statistics, mathematics of finance and other applications for liberal arts majors. Note: All students now can enroll in this transfer-level course without completing posted prerequisites. Please refer to AB 705 (under How do I enroll in courses at COD?) or see a Counselor.

Lecture Hours: 54 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH 045 or MATH 049 or qualifying placement.

Advisory: ENG 001A, Advisory Corequisite: MATH 061 or MATH 361 .

Limitation on enrollment: None

Transfer Status: CSU/UC Degree Applicable: AA/AS

COD GE: A2 CalGETC: 2

**MATH 015 Discrete Mathematics for Computers****Units: 4**

This course is an introduction to discrete mathematics and its applications for computer science students. Topics to be covered include logic and sets, methods of proof, relations and functions, combinatorics, probabilities, graph and tree theory, recurrence relations, Boolean algebra, algorithms, and finite-state machines. (C-ID COMP 152)

Lecture Hours: 54 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH-012 CS-007A.

Advisory: ENG-001A.

Limitation on enrollment: None

Transfer Status: CSU/UC Degree Applicable: AA/AS

COD GE: A2 CalGETC: 2

**MATH 016 Finite Mathematics****Units: 3**

This course covers linear functions, systems of linear equations, matrices, linear programming, mathematics of finance, sets and Venn diagrams, combinatorial techniques and an introduction to probability as well as applications from business, economics, social science, and personal finance.

Lecture Hours: 54 Lab Hours: None Repeatable: No

Grading: Letter

**Prerequisite:** MATH 049 or MATH 045 or qualifying placement.

Advisory: ENG 001A.

Limitation on enrollment: None

Transfer Status: CSU/UC Degree Applicable: AA/AS

COD GE: A2 CalGETC: 2

**MATH 020 Programming and Problem Solving in MATLAB****Units: 3**

This course utilizes the MATLAB environment to provide students with a working knowledge of computer-based problem-solving methods relevant to science and engineering. It introduces the fundamentals of procedural and object-oriented programming, numerical analysis, and data structures. Examples and assignments in the course are drawn from practical applications in engineering, physics, and mathematics.

Lecture Hours: 36 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH 001A.

Advisory: None

Limitation on enrollment: None

Transfer Status: CSU/UC Degree Applicable: AA/AS

COD GE: None CalGETC: None

**MATH 031 Undergraduate Research Experience****Units: 2**

Under the supervision of STEM faculty, students will select a project to be completed during the semester. Topics will include information retrieval, computer skills applied to laboratory research, time management and organizational skills, application of modern research methods, experimental design, data collection and analysis, presentation skills (written and oral), and applying for summer internship opportunities. This course is intended for students pursuing a STEM degree and who have completed a minimum of 35 college level units.

Lecture Hours: 18 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH 001B.

Advisory: LIS 001.

Limitation on enrollment: None

Transfer Status: CSU Degree Applicable: AA/AS

COD GE: None CalGETC: None

**MATH 045 Math Fundamentals for Social Science****Units: 3**

This course focuses on solving problems using linear, exponential, and other models with an introduction to the concept of a function.

Topics include solving and graphing linear and exponential functions, systems of linear equations and inequalities, evaluating rational exponential functions, evaluating and solving root functions and equations, evaluating multivariate functions, creating and analyzing a variety of tables and diagrams, and applications to social sciences and financial mathematics. This course satisfies the Math Competency for an Associate Degree.

Lecture Hours: 54 Lab Hours: None Repeatable: No

Grading: Letter

**Prerequisite:** MATH 054 or qualifying placement.

Advisory: None

Limitation on enrollment: None

Transfer Status: None Degree Applicable: AA/AS

COD GE: None CalGETC: None

**MATH 049 Intermediate Algebra****Units: 3**

This course focuses on solving problems using linear, quadratic and exponential models with an introduction to the concept of a function in preparation for the STEM pathway. Topics include solving and graphing linear, quadratic and exponential equations, systems of linear equations, rational exponents, root equations, quadratic inequalities, circles and applications. This course satisfies the Math Competency for an Associate Degree.

Lecture Hours: 54 Lab Hours: None Repeatable: No

Grading: Letter

**Prerequisite:** MATH 054 or qualifying placement.

Advisory: None

Limitation on enrollment: None

Transfer Status: None Degree Applicable: AA/AS

COD GE: None CalGETC: None

**MATH 054 Beginning Algebra**

**Units: 4**

This course is an introduction to the real number system and to the use of variable expressions and equations in problem solving. Topics include properties of the real numbers, square roots, arithmetic of variable expressions including polynomials and algebraic fractions, solving linear equations and inequalities in one variable, factoring, and an introduction to the Cartesian coordinate system and the equations and graphs of linear equations in two variables. Also, the proper use of math notation is emphasized along with an introduction to Pythagorean Theorem and basic geometric formulas, some dimensional analysis with modeling applications is included.

Lecture Hours: 54    Lab Hours: 54    Repeatable: No

Grading: Letter

**Prerequisite:** MATH 060 or MATH 065.

Advisory: ENG 061.

Limitation on enrollment: None

Transfer Status: None    Degree Applicable: NAA

COD GE: None    CalGETC: None

**MATH 061 Math Study Skills**

**Units: 1**

This course aids students in cultivating personal strategies to improve success in math courses. During this course, which may be taken concurrently with or before taking other mathematics courses, students will develop study skills specific for learning mathematics. Students receive a Pass/No Pass grade mark.

Lecture Hours: 18    Lab Hours: None    Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None    Degree Applicable: NAA

COD GE: None    CalGETC: None

**MATH 065 College Arithmetic with Algebra**

**Units: 4**

This is a course on arithmetic and algebra with an emphasis on the development of fundamental skills needed to succeed in college mathematics. Topics include adding, subtracting, multiplying, and dividing integers, decimals, fractions, and mixed numbers with an introduction to the concept and uses of variables. Other topics include percents; ratios; rates and proportions; the metric and American systems of measurement, including the conversion of units; simplifying algebraic expressions; and elementary geometry concepts such as perimeter, area, and volume.

Lecture Hours: 54    Lab Hours: 54    Repeatable: No

Grading: Letter

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None    Degree Applicable: NAA

COD GE: None    CalGETC: None

**MATH 080 Mathematics in Science Support**

**Units: 0.5**

This course is designed to support students currently enrolled in or planning to enroll in a science course at College of the Desert (although all students are welcome). Topics include: scientific notation, unit conversions, computing averages and percentages, mathematics vocabulary, interpreting and creating graphs and charts, logarithmic scales, and general problem-solving. Advisory: MATH 372 and ENG 061

Lecture Hours: None    Lab Hours: 27    Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: MATH 372 and ENG 061.

Limitation on enrollment: None

Transfer Status: None    Degree Applicable: NAA

COD GE: None    CalGETC: None

**MATH 089 Math/Science Study Center Lab Credit**

**Units: 1**

The Math/Science study center is an open entry/open exit environment that provides opportunities for students to develop mathematical and scientific skills. Emphasis is on independent study, with some instructor guidance/assistance. Students receive a Pass/No Pass grade mark.

Corequisite: Enrollment in a credit mathematics or science course.

Lecture Hours: None    Lab Hours: 54    Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** Corequisite: Enrollment in a credit mathematics or science course.

Advisory: None

Limitation on enrollment: None

Transfer Status: None    Degree Applicable: NAA

COD GE: None    CalGETC: None

**MATH 095A Math Work Experience**

**Units: 1-5**

This work experience course of supervised employment provides students the opportunity to connect academics to applied experiential learning in the workplace. It assists students in developing transferable employability skills, career awareness, learning industry culture, competencies and norms, and developing professional networks that support career mobility. To enroll, students must have a job or internship placement in a part-time or full-time capacity. Credit may be accrued at the rate of one to five (1-5) units per semester based on the student's ability to meet the hours required per unit enrolled. Students must work 54 hours per unit earned. This Work Experience course is available to students whose job or internship placement is directly related to Mathematics.

Lecture Hours: None    Lab Hours: 270    Repeatable: Yes

Grading: Letter

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: CSU    Degree Applicable: AA/AS

COD GE: None    CalGETC: None

**MATH 150 College Algebra for Liberal Arts and Humanities Units: 3**

This is a function oriented course that includes an examination of the general concept of a function and function notation. Topics include: Linear, polynomial, rational, exponential, and logarithmic functions, particularly their equations, graphs, and behavior. Other topics include: Transformations of functions, inverses, linear and non-linear inequalities and systems of equations.

Lecture Hours: 54 Lab Hours: None Repeatable: No  
Grading: Letter

**Prerequisite:** MATH 049 or qualifying placement.

Advisory: ENG 001A, MATH 150S.

Limitation on enrollment: None

Transfer Status: CSU/UC Degree Applicable: AA/AS

COD GE: C4b CalGETC: 2

**MATH 150S College Algebra for Liberal Arts Corequisite Support Lab Units: 1**

This is a laboratory course that supports students who are enrolled in college algebra. Hands on assignments and guided study that focuses on the examination of the general concept of a function and function notation, as well as an in-depth investigation of polynomial, rational, exponential, and logarithmic functions, particularly their equations, graphs, and behavior. Additional topics include; improving arithmetic and algebra skills, reading and writing in mathematics, and preparing students for quizzes and tests in a college algebra course.

Lecture Hours: None Lab Hours: 54 Repeatable: Yes

Grading: Student Option

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NAA

COD GE: None CalGETC: None

**MATH 210S Calculus I Support Units: 0.5**

This course is designed to be taken concurrently with MATH 001A. The focus of this course is to review core prerequisite skills and concepts that are essential for calculus. Topics include recognizing, graphing, and solving equations and word problems involving polynomial, rational, exponential, logarithmic, trigonometric, and inverse trigonometric functions.

Lecture Hours: None Lab Hours: 27 Repeatable: No

Grading: Letter

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NAA

COD GE: None CalGETC: None

**MATH 300 Math Edge Units: 0**

Students taking this course will review mathematical concepts and skills necessary for success in mathematics courses required for their general education and/or degree(s). They will also learn about the mathematics courses College of the Desert offers to help inform their future decisions. Students will also be guided in their transition from high school to college mathematics.

Noncredit Hours: 36 Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NONC

COD GE: None CalGETC: None

**MATH 310 Statistics Support Units: 0**

This noncredit course helps students develop and practice concepts needed from arithmetic and algebra that are essential to understanding the basics of college-level statistics. The course is open to anyone but is intended for students taking statistics courses now or in the future.

Noncredit Hours: 27

Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: Math 372.

Limitation on enrollment: None

Transfer Status: None

Degree Applicable: NONC

COD GE: None

CalGETC: None

**MATH 340 Business Calculus Support - Noncredit Units: 0**

This is a noncredit course that supports students who are enrolled in business calculus. It consists of hands-on assignments and guided study that focuses on functions and their rates of change; the graphs and general behavior of polynomial, rational, exponential, and logarithmic functions; algebra skills required in business calculus; limits; derivatives; integrals; reading and writing related to mathematics and its business application; and preparing students for assessments in a business calculus course.

Noncredit Hours: 36

Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None

Degree Applicable: NONC

COD GE: None

CalGETC: None

**MATH 350 College Algebra for Liberal Arts Corequisite Support Units: 0**

This is a noncredit course that supports students who are enrolled in college algebra. It consists of hands-on assignments and guided study that focuses on the general concept of a function and function notation; polynomial, rational, exponential, and logarithmic functions and their graphs and behavior; arithmetic and algebra skills; reading and writing in mathematics; and preparing students for quizzes and tests in a college algebra course.

Noncredit Hours: 54

Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None

Degree Applicable: NONC

COD GE: None

CalGETC: None

**MATH 351 College Algebra for STEM Support Units: 0**

This course is designed to support students learning college algebra. The focus of this course is to review core prerequisite skills and concepts with an emphasis on critical thinking and problem solving to increase likelihood of success in College Algebra. This course builds quantitative literacy, connecting learning strategies and mathematical knowledge necessary for success in learning college algebra.

Noncredit Hours: 36

Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None

Degree Applicable: NONC

COD GE: None

CalGETC: None

**MATH 355A Trigonometry Support**

**Units: 0**

This course is designed to be taken concurrently with MATH 005: Trigonometry. The focus of this course is to review core skills and concepts with an emphasis on critical thinking and problem solving to increase likelihood of success in Trigonometry. This course builds quantitative literacy, connecting learning strategies and mathematical knowledge necessary for successful completion of MATH 005. Advisory: Math 374

Noncredit Hours: 36 Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: Math 374 .

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NONC

COD GE: None CalGETC: None

**MATH 355B Pre-Calculus Support**

**Units: 0**

This course is designed to support students learning Pre-Calculus. The focus of this course is to review core prerequisite skills and concepts with an emphasis on critical thinking and problem solving to increase likelihood of success in Pre-Calculus. This course builds quantitative literacy, connecting learning strategies and mathematical knowledge necessary for success when learning Pre-Calculus.

Noncredit Hours: 36 Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NONC

COD GE: None CalGETC: None

**MATH 361 Math Study Skills - Noncredit**

**Units: 0**

This course aids students in cultivating personal strategies to improve success in math courses. During this course, which may be taken concurrently with or before taking other mathematics courses, students will develop study skills specific for learning mathematics. Students receive a Pass/No Pass grade mark.

Noncredit Hours: 18 Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NONC

COD GE: None CalGETC: None

**MATH 370A Arithmetic of Whole Numbers-Module 1**

**Units: 0**

This is a course in basic operations of arithmetic of whole numbers. Topics include the definition of whole numbers; adding and subtracting whole numbers; writing whole numbers in standard and expanded notation; and applications of adding and subtracting whole numbers.

Noncredit Hours: 18 Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NONC

COD GE: None CalGETC: None

**MATH 370B Arithmetic of Whole Numbers-Module 2**

**Units: 0**

This is a course in basic operations of arithmetic of whole numbers. Topics include the definitions of prime and composite numbers; multiplying and dividing whole numbers; factoring whole numbers into products of prime numbers; finding the quotient and remainder in a division problem; and applications of operations with whole numbers. Additional emphasis includes basic whole number facts, such as multiplication tables, divisibility criteria, and the order of operations on whole numbers.

Noncredit Hours: 18 Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: MATH 370A.

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NONC

COD GE: None CalGETC: None

**MATH 370C Arithmetic of Integers-Module 1**

**Units: 0**

This is a course in basic operations of arithmetic of integers. Topics include the definition of integers; adding and subtracting integers; graphing integers on the real number line; using absolute value to calculate distance between two integers; and applications of integers and their sums and differences.

Noncredit Hours: 18 Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: MATH 370A & MATH 370B.

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NONC

COD GE: None CalGETC: None

**MATH 370D Arithmetic of Integers-Module 2**

**Units: 0**

This is a course in basic operations of arithmetic of integers. Topics include multiplying and dividing integers; graphing integers on the real number line; exponents; the order of operations; and applications of integers and their products and quotients.

Noncredit Hours: 18 Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: MATH 370A, MATH 370B, & MATH 370C.

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NONC

COD GE: None CalGETC: None

**MATH 370E Arithmetic of Rational Numbers-Module 1**

**Units: 0**

This is a course in basic arithmetic of rational numbers. Topics include the definitions of rational numbers and proper and improper fractions; multiplying and dividing rational numbers; simplifying rational numbers using prime factorization; writing equivalent fractions with different denominators; and applying rational numbers to real life situations. Additional emphasis includes natural number exponents with rational number bases.

Noncredit Hours: 18 Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: MATH 370B, MATH 370C & MATH 370D.

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NONC

COD GE: None CalGETC: None

**MATH 370F Arithmetic of Rational Numbers-Module 2**      **Units: 0**

This is a course in basic arithmetic of rational numbers. Topics include the definition of mixed numbers; adding and subtracting fractions with common denominators; converting between mixed numbers and improper fractions; graphing rational numbers on the real number line; finding the least common denominators of two or more fractions using prime factorization; adding and subtracting fractions with different denominators; and applications of rational numbers. Additional emphasis includes the order of operations on rational numbers and natural number exponents with mixed number bases.

Noncredit Hours: 18      Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: MATH 370C, MATH 370D, & MATH 370E.

Limitation on enrollment: None

Transfer Status: None      Degree Applicable: NONC

COD GE: None      CalGETC: None

**MATH 372 Foundations of Mathematics Support - Noncredit**      **Units: 0**

This is a noncredit course focusing on the fundamental mathematical principles needed for success in mathematics and science courses requiring skills in algebra. Topics include operations on integers, decimals, fractions, and mixed numbers; the concept and uses of variables; percents, ratios, rates, and proportions; the metric and American systems of measurement, including the conversion of units; and simplifying algebraic expressions.

Noncredit Hours: 54      Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None      Degree Applicable: NONC

COD GE: None      CalGETC: None

**MATH 374 Algebra Concepts Support - Noncredit**      **Units: 0**

This is a noncredit course on algebra concepts that focuses on the real number system and the use of algebraic expressions, equations, and inequalities in problem solving. Topics include properties of the real numbers; arithmetic of algebraic expressions including polynomials; solving linear equations and inequalities in one variable; factoring polynomials; the Cartesian coordinate system; and equations and graphs of linear equations in two variables. The proper use of math notation and precise language is emphasized. Applications problems will include various phenomena that can be modeled with algebraic expressions, equations, and/or inequalities. Optional topics include rational, radical, exponential and logarithmic equations and their applications, and an introduction to functions.

Noncredit Hours: 54      Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None      Degree Applicable: NONC

COD GE: None      CalGETC: None

**MATH 380 Mathematics in Science Support - Noncredit**      **Units: 0**

This noncredit course is designed to support students currently enrolled in or planning to enroll in a science course at College of the Desert (although all students are welcome). Topics include: scientific notation, unit conversions, computing averages and percentages, mathematics vocabulary, interpreting and creating graphs and charts, logarithmic scales, and general problem-solving.

Noncredit Hours: 27      Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: MATH 372 and ENG 061.

Limitation on enrollment: None

Transfer Status: None      Degree Applicable: NONC

COD GE: None      CalGETC: None

**MATH 387 Math/Science Study Center Lab 1**      **Units: 0**

The Math/Science study center is an open entry/open exit environment which provides opportunities to develop mathematical and scientific skills. Emphasis is on independent study, with some instructor guidance/assistance. Corequisite: Enrollment in a credit mathematics or science course.

Noncredit Hours: 27      Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None      Degree Applicable: NONC

COD GE: None      CalGETC: None

**MATH 388 Math/Science Study Center Lab 2**      **Units: 0**

The Math/Science study center is an open entry/open exit environment which provides opportunities to develop mathematical and scientific skills. Emphasis is on independent study, with some instructor guidance/assistance. Corequisite: Enrollment in a credit mathematics or science course.

Noncredit Hours: 54      Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None      Degree Applicable: NONC

COD GE: None      CalGETC: None

**MATH 410 Calculus I Support**      **Units: 0**

This noncredit course is designed to be taken concurrently with MATH 001A. The focus of this course is to review core prerequisite skills and concepts that are essential for calculus. Topics include recognizing, graphing, and solving equations and word problems involving polynomial, rational, exponential, logarithmic, trigonometric, and inverse trigonometric functions.

Noncredit Hours: 36      Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None      Degree Applicable: NONC

COD GE: None      CalGETC: None

**MATH 420 Calculus II Support**

**Units: 0**

This noncredit course is designed to be taken concurrently with MATH 001B. The focus of this course is to review core prerequisite skills and concepts that are essential for second semester calculus. Topics include limits, derivatives, graphing functions, applications of derivatives, the Fundamental Theorem of Calculus, and integration basics.

Noncredit Hours: 36 Repeatable: Yes

Grading: Pass/No Pass

**Prerequisite:** None

Advisory: None

Limitation on enrollment: None

Transfer Status: None Degree Applicable: NONC

COD GE: None CalGETC: None

**MATH 955 Precalculus & Trigonometry**

**Units: 6**

This course is an intense course covering both trigonometry and precalculus topics to prepare students for calculus. In this course, students will study: polynomial, absolute value, radical, rational, exponential, and logarithmic functions; analytic geometry; polar coordinates; trigonometric functions, their inverses, and their graphs; trigonometric identities and proofs; trigonometric equations; solving right triangles; solving triangles using the Law of Cosines and the Law of Sines; and vectors.

Lecture Hours: 90 Lab Hours: 54 Repeatable: No

Grading: Letter

**Prerequisite:** MATH 049 or qualifying placement.

Advisory: ENG 001A, Advisory Corequisites: MATH 355A, MATH 355B.

Limitation on enrollment: None

Transfer Status: CSU Degree Applicable: AA/AS

COD GE: C4b CalGETC: 2