

# MATHEMATICS (MATH)

---

## **MATH 0010 Math Study Skills**

### **1.0 credit hours**

15.0 Classroom Hours = 15.0 Lecture Hours

Math Study Skills offers techniques to improve students' math skills for a higher level of success with math assignments and tests at all levels. The course is strongly recommended for students whose placement scores indicate MATH 0100 or MATH 0900 and for students who have math anxiety or who are having difficulty passing MATH 1010. Topics included are study skills, test anxiety, memory techniques, and test taking. Note: MATH 0010 does not meet any program or transfer requirement.

## **MATH 0090 Math for Health Occupations**

### **2.0 credit hours**

30.0 Classroom Hours = 30.0 Lecture Hours

Review of the four fundamental operations on fractions and decimals, Roman numerals, ratio and proportion, percentages and the metric, English, apothecary and household systems of measurement. Note: This course does not satisfy the general education requirement for the Associate degree and cannot be used as an elective. This course is not designed to transfer to a four-year college.

## **MATH 0100 Fund of Mathematics**

### **3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

Review of the four fundamental operations on whole numbers, operations on fractions and decimals, solution of practical problems involving percentages, investments, ratio, proportion and introduction to algebra. NOTE: This course does not satisfy the general education requirement for the Associate degree and cannot be used as an elective. This course is not designed to transfer to a four-year college.

## **MATH 0900 Elementary Algebra**

### **3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

Reviewing real number operations, algebraic expressions, exponents, solving linear equations, graphing, operations with polynomials, solving quadratics, solving word problems. This course does not satisfy degree requirements and cannot be used as an elective. NOTE: This course is not designed to transfer to a four-year college. Prerequisite: Completion of MATH 0090 or MATH 0100 with at least a "C" or adequate score on the math placement exam.

## **MATH 0950 Integrated Math**

### **5.0 credit hours**

75.0 Classroom Hours = 75.0 Lecture Hours

This course is an accelerated course containing the topics of MATH 0100 and MATH 0900 completed in one semester. Topics include: Fundamental Operation on Whole Numbers, Fractions, and Decimals; Algebraic Expressions and Equations; Polynomials and Rational Expressions. Students that successfully compete this course with a 'C' or higher can enroll in MATH 1010. NOTE: This course does not satisfy the general education requirement for the Associate degree and cannot be used as an elective. This course is not designed to transfer to a four-year college.

## **MATH 1010 Intermediate Algebra**

### **3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

Properties of real numbers, factoring, exponents and radicals, linear and fractional equations, linear and nonlinear inequalities, quadratic equations, and functions and graphs. NOTE: This course will not satisfy the general education requirement for the Associate of Arts degree but can be used as an elective. This course may not be accepted in transfer toward the general education requirement for a baccalaureate degree. Prerequisite: Completion of MATH 0900 or MATH 0950 with at least a "C", adequate level on the math placement test, or placement based on multiple measures.

## **MATH 1020 Technical Math**

### **3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

This course provides the math skills required in career/technical fields. The course includes a review of arithmetic operations, ratios and proportions, algebraic operations, geometrical relationships and right triangle trigonometry with emphasis placed on applications.

## **MATH 1150 College Algebra**

### **3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

This course is the study of relations, functions and their graphs, equations and inequalities, polynomial and rational functions, exponential and logarithmic functions, systems of equations and inequalities. Note: This course will satisfy the general education requirement for the Associate of Arts Degree. Prerequisite: Completion of MATH 1010 with at least a "C", adequate level on the math placement test, or placement based on multiple measures.

## **MATH 1250 Trigonometry**

### **3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

Designed for students who plan further study at the calculus level. Numerical trigonometry, trigonometric analysis, inverse trigonometric functions, and complex numbers. Prerequisite: Completion of MATH 1150 with at least a "C", adequate level on the math placement test or placement based on multiple measures.

## **MATH 1350 Applied Calculus**

### **3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

Concepts of differential and integral calculus with applications to business, economics and the social sciences. Prerequisite: Completion of MATH 1150 with at least a "C", adequate score on the math placement test, or placement based on multiple measures. Note: Credit will not be given in both MATH 1350 and MATH 1600.

## **MATH 1600 Analytic Geometry & Calc I**

### **5.0 credit hours**

75.0 Classroom Hours = 75.0 Lecture Hours

This course is a study of analytical geometry and single variable calculus. Topics include limits, continuity, derivatives, applications of derivatives, integrals, and applications of integrals. Prerequisite: Completion of College Algebra and Trigonometry or Pre-Calculus, an appropriate placement score or placement based on multiple measures. Note: Credit will not be given for both MATH 1350 and MATH 1600.

**MATH 1900 Analytic Geometry & Calc II**

**5.0 credit hours**

75.0 Classroom Hours = 75.0 Lecture Hours

A continuation of MATH 1600. Trigonometric, logarithmic, exponential functions, methods of integration, polar coordinates, applications and infinite series. Prerequisite: Completion of MATH 1600 with at least a "C".

**MATH 2000 Modern Elem School Math I**

**3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

Required for the elementary education major. Problem solving, systems of numeration, non-decimal bases, basic number theory, operations on whole numbers, integers, rational numbers. Prerequisite: Completion of MATH 1150 with at least a "C". or 4 years of high school math, or permission of instructor.

**MATH 2100 Modern Elem School Math II**

**3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

Required for the elementary education major. Modular arithmetic, ratio & proportion, percent, introduction to probability, brief introduction to descriptive statistics, measurement and metric system, measurement of plane and solid geometric figures, geometric constructions and coordinate geometry. Prerequisite: Completion of MATH 2000 with at least a "C" or permission of instructor.

**MATH 2170 Applied Statistics**

**3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

The course is an introduction to basic probability and statistical methods that are used in a wide variety of disciplines. Topics include descriptive statistics, probability foundations, probability distributions, sampling distributions, methods of statistical inference, and bivariate relationships. Prerequisites: MATH 1010, adequate score on math placement test or placement based on multiple measures.

**MATH 2450 Analytic Geometry & Calc III**

**5.0 credit hours**

75.0 Classroom Hours = 75.0 Lecture Hours

A continuation of MATH 1550. Functions of more than one variable, vector and vector functions, partial derivatives, multiple integrals and applications. Prerequisite: Completion of MATH 1900 with at least a "C".

**MATH 2600 Differential Equations**

**3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

Elementary differential equations with applications including methods of solving equations of order one, linear differential equations, linear equations with constant coefficients, undetermined coefficients, variation of parameters, inverse operators, solution of systems of differential equations and solution of differential equations by matrix methods and the LaPlace transform. Prerequisite: Completion of MATH 2450 with at least a "C".

**MATH 2980 Directed Study**

**3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

Directed Study

**MATH 2990 Special Topics**

**3.0 credit hours**

45.0 Classroom Hours = 45.0 Lecture Hours

Special topic course description upon request.