

Mathematics (MATH) Courses

MATH0010 Pre-Algebra

Students are assigned to this course based on placement tests given prior to taking MATH1020 or MATH1002. The course is designed to teach students the basic mathematical concepts and methods that will prepare them for studying college-level mathematics. Topics include a review of basic arithmetic, an introduction to algebra, and problem-solving techniques.

Offered at Charlotte, Online, Providence

1.5 Semester Credits

MATH1002 A Survey of College Mathematics

This course is designed to teach students the basic mathematical concepts and methods that will assist them in using mathematics in both their personal and professional lives. Topics include problem solving, sets, probability, statistics, consumer mathematics, and the rudiments of college algebra.

Prerequisite(s): MATH0010 or math placement.

Offered at Charlotte, Online, Providence

3 Semester Credits

MATH1020 Fundamentals of Algebra

This course provides students with a working knowledge of the basic elements of algebra. Topics covered include graphing, inequalities, exponents and roots, logarithms, and factoring, and the solution of linear, quadratic, logarithmic, rational and radical equations, as well as systems of linear equations.

Prerequisite(s): MATH0010 or math placement.

Offered at Charlotte, Online, Providence

3 Semester Credits

MATH1030 Precalculus

This course features the concepts and techniques essential for the study of calculus. Topics include functional notation; algebraic, trigonometric, exponential and logarithmic functions; analytic trigonometry; and matrix algebra.

Prerequisite(s): MATH1020 or math placement.

Offered at Charlotte, Online, Providence

3 Semester Credits

MATH1035 Quantitative Analysis I

This is a business-oriented mathematics course that features applications in algebra and differential calculus. Topics include linear, quadratic, exponential and logarithmic functions as well as matrices, linear programming, and derivatives.

Prerequisite(s): MATH1020 or math placement.

Offered at Charlotte, Online, Providence

3 Semester Credits

MATH1040 Calculus I

This course provides students with an introduction to the basic elements of differential and integral calculus. Topics include functions and limits, continuity, differentiation and its applications, relative extrema, and an introduction to integration.

Prerequisite(s): MATH1030 or math placement.

Offered at Charlotte, Providence

3 Semester Credits

MATH2001 Statistics I

This course is designed to provide students with the basic statistical concepts and techniques that will assist them in both their personal and professional lives. Topics include measures of central tendency and dispersion, probability distributions of both discrete and continuous random variables, sampling distributions, estimation theory, and an introduction to hypothesis testing.

Prerequisite(s): MATH1002 or higher (minimum grade of C in MATH1002 or MATH1020 required for hybrid sections of MATH2001).

Offered at Charlotte, Online, Providence

3 Semester Credits

MATH2002 Statistics II

This course is a continuation of Statistics I. It is designed to provide students with the statistical concepts and techniques of inferential statistics. Topics include hypothesis testing; testing the difference between two means, two proportions and two variances; correlation and regression; Chi-square tests; analysis of variance; and nonparametric statistics.

Prerequisite(s): MATH2001 or MATH2010.

Offered at Charlotte, Online, Providence

3 Semester Credits

MATH2010 Introduction to Biostatistics

This course is an introductory statistics course with a focus on applications to biomedical and related fields such as nutrition, pharmacology, ecology, genetics, health and physiology. Topics include descriptive statistics, correlation and regression, statistical studies, elementary probability theory, probability and sampling distributions, estimation theory, and hypothesis testing.

Prerequisite(s): MATH1002 or MATH1020.

Offered at Charlotte, Online, Providence

3 Semester Credits

MATH2015 Honors Seminar: Experimental Design and Statistics

This course provides students with statistical concepts and techniques that assist them in both their academic and professional lives. Basic concepts such as measures of central tendency and dispersion, probability distribution of both discrete and continuous random variables, sampling distributions, and estimation theory are covered, and techniques such as hypothesis testing and correlation are introduced. The course culminates in the application of experimental design to a real work situation.

Prerequisite(s): MATH1002 or higher (minimum grade of C in MATH1002 or MATH1020 is required for hybrid sections of MATH2001), honors or SHARP status, sophomore status.

Offered at Charlotte, Providence

3 Semester Credits