

# 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

## **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

## **MATH2020 Discrete Mathematics**

This course is designed to give students the basic mathematical concepts and methods that are prevalent in information science. Topics include logic, sets, relations, functions, algorithms, recurrence relations, elementary graph theory and trees.

Prerequisite(s): MATH1020 or math placement.

Offered at Online, Providence

3 Semester Credits

## **MATH5100 Statistical Methods**

This course features the statistical content tested on the Chartered Financial Analyst (CFA) certification exam. Topics include descriptive statistics, probability and probability distributions, sampling and hypothesis testing.

Offered at Online, Providence

3 Semester Credits