

## U.C. Clermont College Mathematics Course Descriptions

**34MATH104. Preparatory Mathematics.** 3 ug.cr. A review of arithmetic operations involving whole numbers, fractions, decimals, percents, and signed numbers. Problem solving is emphasized.

**34MATH114. Applied Business Mathematics.** 3 ug. cr. Review of fractions, decimals, percents, retail and finance mathematics.

**\*34MATH132. Introductory Algebra I.** 3 ug. cr. A review of high school algebra. Topics include signed numbers, factoring, graphing, exponents, radicals, simplifying algebraic expressions, and linear equations. Prereq.: 34MATH104

**\*34MATH133. Introductory Algebra II.** 3 ug. cr. Further topics from high school algebra, including systems of equations, quadratic equations, and word problems. Prereq. : 34MATH 132

**\*34MATH134. Intermediate Algebra.** 3 ug. cr. Properties of real numbers, fractional exponents, radicals, complex numbers, relations, functions, logarithms, right triangle trigonometry and applications. Prereq.: 34MATH133.

**\*34MATH136. Math for Behavioral Sciences & Computers I.** 3 ug. cr. Set theory, Venn diagrams, logic, truth tables, Boolean algebra, number theory and matrices. Prereq.: 34MATH132. QR

**\*34MATH137. Math for Behavioral Sciences & Computers II.** 3 ug. cr. Counting theory, probability and applications, statistics and applications. Prereq.: 34MATH132. QR

**34MATH138. Math for Behavioral Sciences & Computers III.** 3 ug. cr. Systems of inequalities, linear programming, simplex method, variations and applications. Prereq.: 34MATH137. QR

**\*34MATH144. Math for Allied Health Professionals.** 3 ug. cr. Review of arithmetic, the apothecary system, signed numbers, first degree equations, literal equations, ratios and proportions, instrumentation, graphing and interpreting graphs, frequency distributions, central tendency, and scientific notation. Prereq.: 34MATH104.

**\*34MATH146. Statistics for the Health Sciences.** 3 ug. cr. The concepts of statistical models and inference applied to problems in the health sciences. Major emphasis on the role that statistics plays in the health sciences, with the aim of giving students an understanding of and confidence in the use of statistical techniques. Prereq.: 34MATH133. QR

**\*Prereq courses require C- or better.**

**\*34MATH147. Elementary Probability and Statistics I.** 3 ug. cr. Understanding data : distributions and graphs. Summarizing data : normal distribution, scatterplots, categorical data, designing samples and experiments, probability. Prereq.: 34MATH133. QR

**34MATH148. Elementary Probability and Statistics II.** 3 ug. cr. Understanding inference : sampling distribution probability, sample proportions and means, binomial distribution, confidence intervals, inference for means, comparing two means, inference for population spread. Prereq.: 34MATH147. QR

**34MATH149. Elementary Probability and Statistics III.** 3 ug. cr. Topics in inference for proportions, two-sample inference, two-way tables and chi-square, analysis of variance, inference for regression. Prereq.: 34MATH148. QR

**\*34MATH173. College Algebra I.** 3 ug. cr. Real number system, exponents, polynomials, rational expressions, equations, formulas, inequalities, graphs of functions and variation. Prereq.: 34MATH134. QR

**34MATH174. College Algebra II.** 3 ug. cr. Polynomial functions and their graphs, rational functions, conic sections, exponential and logarithmic functions, system of equations and inequalities. Prereq.: 34MATH173. QR

**34MATH181. Trigonometry.** 3 ug. cr. Angles, measurement, functions, inverses, graphs, identities, formulas, trigonometric equations, laws of sines and cosines and vectors. Prereq.: 34MATH174. QR

**34MATH225. Finite Math.** 3 ug. cr. Matrices, linear programming, simplex method, set theory and probability. Prereq.: 34MATH174. QR

**34MATH226. Applied Calculus I.** 3 ug. cr. Limits and continuity, functions, definition of the derivative, differentiation techniques, applications of the derivative (optimization problems), exponent and logarithmic functions and derivatives. Prereq.: 34MATH174. QR

**34MATH227. Applied Calculus II.** 3 ug. cr. Integration techniques and applications, functions of several variables, implicit differentiation, differential equations. Prereq.: 34MATH226 QR

**34MATH261. Calculus and Analytic Geometry I.** 5 ug. cr. Functions, limits and continuity, derivatives, applications of the derivative, and the integral. Prereq.: 34MATH181 QR