Mathematics (MATH)

MATH 0013 - Basic Mathematics ..... 0 Credit

Class 3. A study of the fundamental operations with whole numbers, fractions, decimals, and signed numbers, including a study of percentage, measure, ratio, and proportion, geometry, and scientific notation. This proficiency course is designed to prepare students for Elementary Algebra. MATH 0013 credits do not count toward an Associate degree.

MATH 0113 - Elementary Algebra ..... 0 Credit

Class 3. *Prerequisite*: *MATH 0013 - Basic Mathematics*, *or satisfactory performance on the CPT (Computerized Placement Test)*. This course does not assume prior knowledge of algebra. Topics include: Signed numbers, integer exponents, algebraic expressions, factoring, algebraic fractions, linear equations, linear graphing. This proficiency course is designed to prepare students for Intermediate Algebra MATH 0123. MATH 0113 credits do not count toward an Associate degree.

MATH 0123 - Intermediate Algebra ..... 0 Credit

Class 3. *Prerequisite*: *MATH 0013 - Elementary Algebra*, or satisfactory performance on the CPT (Computerized Placement Test). This course is an extension of *MATH 0113* for students who need to review the algebra background or satisfy a mathematics deficiency. Topics include: review of real numbers, first degree equations, polynomials, rational expressions, linear equations in two variables, quadratic equations. This proficiency course is designed to prepare students for college level mathematics MATH 1493 Math Structures or MATH 1513 College Algebra. MATH 0123 credits do not count toward an Associate degree.

MATH 1493 - Mathematical Structures ..... 3 Credits
Class 3. *Prerequisite: MATH 0123 – Intermediate Algebra, ACT subscore of 19 or above or satisfactory CPT (Computerized Placement Test) score*. A study of the fundamental structures of mathematics for non-mathematics majors. Topics include: Systematic problem solving, logic, techniques of reasoning and proof, finite algebras and their properties, structure of number systems, algebraic systems, introduction to number theory.

MATH 1513 - College Algebra ..... 3 Credits
Class 3. *Prerequisite: MATH 0123 - Intermediate Algebra, ACT sub-score of 19 or above, or satisfactory performance on the CPT (Computerized Placement Test)*. Graphing calculator utilized. Topics include: linear and quadratic equations and inequalities, functions and graphs, polynomials and rational functions, exponential and rational functions, systems of equations, matrices and determinants, binomial theorem.

MATH 1613 - Trigonometry ..... 3 Credits
Class 3. *Prerequisite: MATH 1513 – College Algebra (or equivalent)*. Trigonometric functions, equations, identities, logarithms, solution of triangles and applications to physical sciences, trigonometric representations of complex numbers.

MATH 2103 - Elementary Calculus ..... 3 Credits
Class 3. *Prerequisite: MATH 1513 – College Algebra*. This course is an introduction to differential and integral calculus for students of business and social science.

MATH 2215 - Calculus I ..... 5 Credits
Class 5. *Prerequisite: MATH 1513 – College Algebra and MATH 1613 – Trigonometry (or equivalent)*. Functions, limits, derivatives, differentials, integrals, transcendental functions, methods of integration. Includes applications and introductory analytic geometry.

MATH 2235 - Calculus II ..... 5 Credits
Class 5. *Prerequisite: MATH 2215 – Calculus II*. Hyperbolic functions, polar coordinates, parametric equations, power series, multivariate and vector calculus. Includes applications and analytic geometry.

MATH 2300 - Special Studies in Math ..... 1-5 Credits
Prerequisite: Consent of instructor. The study and/or analysis of a selected topic in mathematics. Individual and/or group study. May be repeated with a different topic.