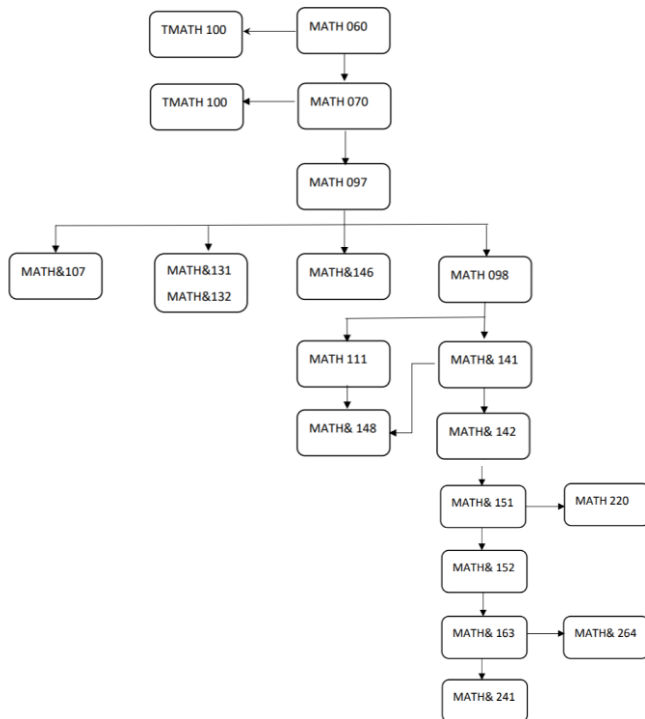


## GHC Math Course Pathway



## Course Topics:

**MATH 60: Fundamentals of Arithmetic.** Topics include: estimation, order of operations, whole numbers, fractions, decimals, ratios, proportions, percent applications, measurement applications including calculating the perimeter and area of geometric objects. Problem solving strategies will be stressed.

**MATH 70: Beginning Algebra.** Topics include fractions, percents, real number arithmetic, exponents, order of operations, algebraic expressions, solving linear equations and inequalities with one variable, graphing linear equations, working with units and formulas.

**MATH 97: Elementary Algebra.** Topics covered include: review of basic algebra; ratios and proportions; systems of linear equations and inequalities; linear functions; polynomials; quadratic functions; and exponential functions. Applications are drawn from personal finance, business, social sciences and the sciences.

**MATH 98: Intermediate Algebra.** Topics include: factoring; rational expressions and equations; power and radical expressions and equations; quadratic equations and functions; graphing lines and parabolas; solving basic applications.

**TMATH 100: Vocational Math.** Content includes: powers and roots, signed numbers, formula manipulations, plane and solid geometry, trigonometry and specialized formulas. [Vocational students in Auto, Carpentry, Diesel and Welding.]

**TMATH 101: Vocational Math.** Topics include: linear and exponential functions, financial mathematics, and descriptive statistics. [Vocational students in Human Services, Criminal Justice, etc.]

**Math& 107: Math and Society.** Topics include: percents, index numbers and the CPI, financial math, probability, statistical reasoning, measures of central tendency and variation, the normal distribution and exponential growth and decay. [Humanities]

**MATH 111: Finite Math.** Topics covered include: linear, quadratic, exponential and logarithmic functions; systems of linear equations and inequalities with solution by simplex methods; and financial math. Applications are drawn from business, economics, and the management and social sciences. [Business Majors]

**MATH& 131: Math for Elementary Ed. Majors.** Focuses on a deeper understanding of problem solving techniques, place value, numeration and computation, fractions, decimals, percents, ratios and proportional reasoning, and number theory to improve students' ability to teach this material.

**MATH& 141: Precalculus 1.** Content includes: the definition of a function; linear functions; graphs of functions; inverse functions; quadratic functions; exponential functions; logarithmic functions; and triangle trigonometry. Applications from science and engineering. [Science, Engineering, Math and general transfer students.]

**MATH& 142: Precalculus 2.** Content includes: a review of right triangle trigonometry; trigonometric functions; inverse trigonometric functions; trigonometric identities; polar coordinates; vectors; polynomial functions; rational functions; parametric equations; and conic sections. [Science, Engineering, Math and general transfer students.]

**MATH& 146: Statistics.** Content includes: the graphical display of data; the numerical summary of data; the basics of surveys and experiments; basic probability theory; the central limit theorem; sampling distributions; confidence intervals; hypothesis tests; the t-distribution; correlation; and linear regression. Applications are drawn from business, the social sciences and the natural sciences. [Business, Nursing, Science and Social Science Majors.]

**MATH& 148: Business Calculus.** Content includes: differentiation, applications of derivatives, anti-differentiation, basic differential equations, integration, and partial derivatives. Applications are drawn from business, economics, and the management and social sciences. [Business majors.]

**MATH& 151: Calculus 1.** Content includes: limits; differentiation of elementary functions; implicit differentiation; related rates; analysis of extreme values and curvature of functions; applied optimization; antiderivatives; and an intro to definite integrals. Applications from the natural and social sciences, and engineering. [Science, Engineering and Math Majors.]

**MATH& 152: Calculus 2.** Content includes: definite integrals; the fundamental theorem of calculus; techniques of integration; numerical integration; applications including volumes, work, and differential equations; Taylor polynomials; and power series. Applications from the natural and social sciences, and engineering. [Science, Engineering and Math Majors.]