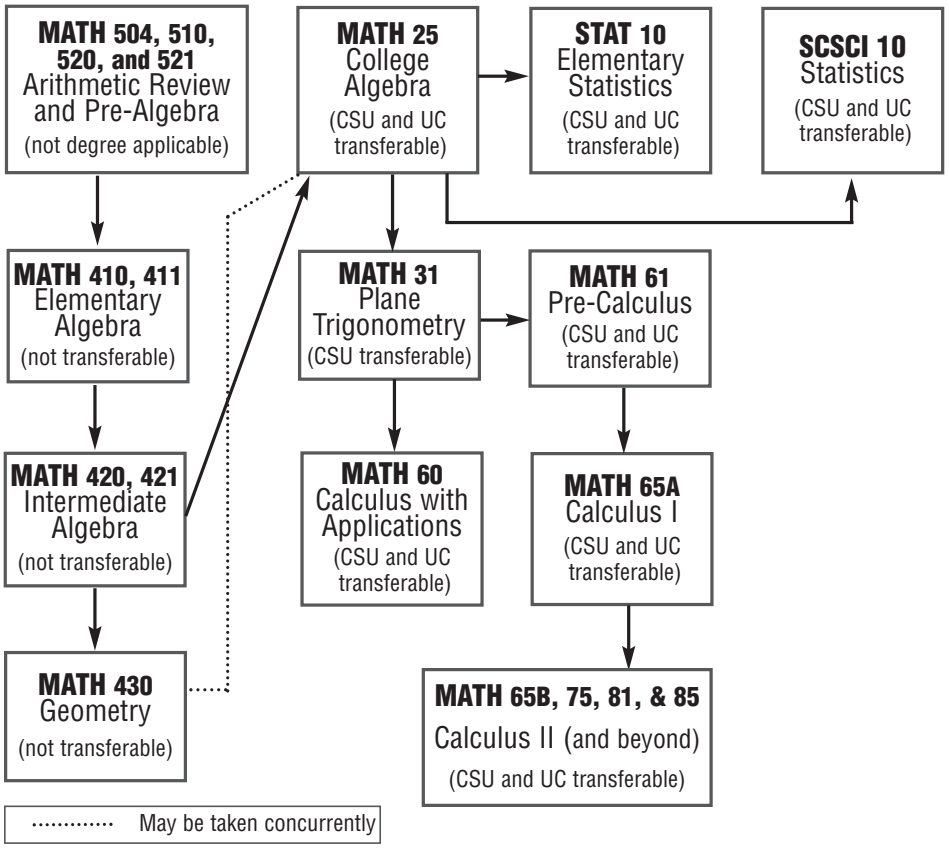
Chaffey College

MATHEMATICS COURSE SEQUENCE



MATH 510 Arithmetic 4 units

For students requiring a complete study of arithmetic beginning with operations of whole numbers. Topics include operations and applications involving whole numbers, fractions, decimals, ratio, proportion, and percent.

MATH 520 Arithmetic and Preparation for Algebra 4 units

For students preparing for elementary algebra who are competent in the basic operations of arithmetic but need instruction in fractions, decimals, and percents. Topics include prime factoring, fractions, decimals, ratios, proportions, percents, introductory algebra concepts, integers, and numerical and variable expressions.

MATH 410 Elementary Algebra 4 units

Prerequisite: Ability to perform basic arithmetic operations.
Recommended Preparation: Mathematics 520.
Fundamental algebraic operations of addition, subtraction, multiplication and division. Special products and factoring, rational expressions and their operations, solution and application of linear and fractional equations, graphing of linear equations in two variables, introduction to radicals and quadratic equations.

MATH 420 Intermediate Algebra 4 units

Prerequisite: Mathematics 410 or equivalent with a minimum grade of C.
First degree equations and inequalities; factoring; algebraic fractions; equations and inequalities with rational expressions; exponents and radicals; quadratic equations and inequalities; equations with radicals; applications; graphing; and determining linear equations in two variables.

MATH 25 College Algebra 4 units

Prerequisite: Mathematics 420 or equivalent with a minimum grade of C.

Coordinate geometry and graphing techniques; conic sections; solutions to higher degree polynomial equations. Functions: notation, algebraic operations, composition, and variation. Polynomial, rational, inverse, exponential and logarithmic functions. Systems of equations; solving systems by matrices and determinants. Sequences and series; binomial expansion; mathematical induction. Transfer credit: CSU; UC credit limitations

MATH 31 Plane Trigonometry 4 units

Prerequisite: Mathematics 25 or equivalent with a minimum grade of C.

Recommended Preparation: Math 430 or 1 year high school geometry or equivalent with a minimum grade of C.

Trigonometric functions including definitions of the circular functions; radian measure, graphs, inverse trigonometric functions, trigonometric equations and identities, solution of right and oblique triangles, applications, vectors, complex numbers, polar coordinates and graphs, equation of conics, and rotation of axes.
Transfer credit: CSU

MATH 61 Pre-Calculus 4 units

Prerequisite: Mathematics 25 and 31 or equivalent with minimum grade of C.

Further studies in algebra and trigonometry for students intending to take calculus. Factoring techniques, nonlinear inequalities including absolute values, partial fractions, introduction to limits, graphing rational functions, conic sections, and trigonometric functions and inverses. Trigonometric concepts emphasized as needed for calculus, including identities, equations, and applications. Transfer credit: CSU; UC credit limitations

For sections offered each term, see the Schedule of Classes or go to www.chaffey.edu/schedule