

MATH A060**Essential Mathematics****4 Credits/(4+0)**

Fees

Special Note: Equivalent to MATH A054 and MATH A055. Credit will not be given for both MATH A055 and MATH A060. Placement test not required.

Course Description: Teaches the concepts of basic arithmetic and introductory algebra. Develops ability to perform algebraic manipulations to the level where this knowledge can be used in intermediate algebra and in other disciplines. Includes operations on whole numbers, fractions, decimals, ratio, proportion, percent, measurement systems, topics from consumer mathematics, operations and properties of real numbers, order of operations, evaluation of literal expressions, solution of linear equations expressions, solutions of linear equations and inequalities, with polynomials, factoring and special products, fundamental operations with algebraic fractions, Cartesian graphing of linear equations and inequalities in two variables, solution of quadratic equations, elementary systems of equations. Time permitting: geometry of figures, scientific notation and variation.

MATH A101**Technical Mathematics****3 Credits/(3+0)**

Prerequisites: Math A054

Special Note: This course will not satisfy the mathematics requirement for an Associate of Arts Degree.

Course Description: Provides mathematical training for students enrolled in technical programs. Includes basic arithmetic, operations with signed numbers, solving equations with one and two variables, formula evaluation and rearrangement. Introduction to right triangle trigonometry, and solving word problems.

MATH A102**Business Mathematics****3 Credits/(3+0)**

Course Description: Designed for students with a modest mathematical background who wish to develop skills in applied business mathematics and financial matters. Topics include simple and compound interest, notes, present value, trade and cash discounts, markup/markdown, payrolls, depreciation, casualty insurance, sales and property tax, installment buying and business statistics.

MATH A105**Intermediate Algebra****3 Credits/(3+0)**

Prerequisites: MATH A055 with minimum grade of C or MATH A060 with minimum grade of C.

Registration Restriction: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required.

Special Note: Presumes a solid foundation in elementary algebra.

Fees

Course Description: Covers sets, properties of real numbers, exponents and radicals, solution of first and second-degree equations and inequalities. Also covers word problems, fundamental operations with polynomials, factoring, special products, rational expressions, functions, conic sections, Cartesian graphing of first and second degree equations and inequalities, systems of equations, and introduction to logarithmic and exponential functions.

MATH A107 **College Algebra** **4 Credits/(4+0)**

Prerequisites: MATH A105 with minimum grade of C.

Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required.

Course Attributes: GER Tier I Quantitative Skills Requirement.

Fees

Special Note: A student may apply no more than 7 credits from any combination of MATH A107, A108 and A109 toward the graduation requirements for any baccalaureate degree.

Course Description: Covers equations and inequalities; function theory and applications; solution of equations greater than second degree; determinants and matrices; systems of equations and inequalities, including applications; logarithmic and exponential functions, including applications; graphs and equations of conic sections, including applications; binomial theorem; sequences and series; mathematical induction and combinatoric notation.

MATH A108 **Trigonometry** **3 Credits/(3+0)**

Prerequisites: Math A107 with minimum grade of C.

Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required.

Course Attributes: GER Tier I Quantitative Skills Requirement.

Fees

Special Note: A student may apply no more than 7 credits from any combination of Math A107, A108 and A109 toward the graduation requirements for any baccalaureate degree.

Course Description: Covers angular measure and trigonometric functions, fundamental trigonometric identities, composite angle identities, and graphs of trigonometric functions. Also includes complex numbers, De Moivre's theorem, solution of right and oblique triangles, solution of trigonometric equations, inverse trigonometric functions and vectors. Provides calculation practice helpful for engineering, and survey technology courses.

MATH A109 **Precalculus** **3 Credits/(3+0)**

Prerequisites: MATH A105 with minimum grade of B.

Registration Restrictions: If prerequisite is not satisfied, appropriate SAT or ACT scores or approved UAA Placement Test required.

Course Attributes: GER Tier I Quantitative Skills Requirement.

Fees.

Special Note: Intensive course designed for students who intend to take the calculus sequence (Math A200, A201, A202). A student may apply no more than 7 credits from any combination of MATH A107, A108 and A109 towards the graduation requirements for any baccalaureate degree.

Course Description: Intensive course covering polynomial, rational, exponential, logarithmic and trigonometric functions, composite and inverse functions, conic sections, matrices and determinants, solutions of equations and inequalities, vectors, complex numbers, DeMoivre's Theorem, polar coordinates, parametric and polar graphs, sequences and series, binomial theorem and mathematical induction.

