MATHEMATICS (MTH)

MTH 101 Introduction to Algebra (3 Credits)
This course is an introductory beginning level algebra course. Topics covered include fundamental operations, linear graphing and exponents. This class does not meet transfer requirements for math.

MTH 102 Intermediate Algebra (3 Credits)
Properties of the real number system, factoring, linear, exponential and quadratic equations, functions, polynomial and rational expressions, systems of equations, exponents and radicals.
Prerequisite: MTH 101 or placement test

MTH 103 College Algebra (4 Credits)
This course is designed to introduce the learner to critical thinking and problem solving skills in algebraic concepts, relations and functions, equations and inequalities, complex numbers; polynomial, rational, exponential and logarithmic functions and systems of equations.
Prerequisite: MTH 102 or placement test

MTH 104 Finite Math (4 Credits)
Systems of linear equations and inequalities, matrices, linear programming, mathematics of Finance, elementary probability and descriptive statistics.
Prerequisite: MTH 102 or placement test

MTH 106 Career Math (3 Credits)
This course covers material designed for career technical students who need to study particular mathematical topics. Topics may include measurement, algebra, geometry, trigonometry, graphs, and/or finance. These are presented on an introductory level and the emphasis is on applications. This class does not meet transfer requirements for math.

MTH 107 Precalculus (4 Credits)
Equations and inequalities, polynomial, rational, exponential, logarithmic, trigonometric and inverse trigonometric functions; trigonometric identities and equations and applications.
Prerequisite: MTH 102

MTH 129 Basic Linear Algebra (3 Credits)
Systems of linear equations, matrices, determinants, vector spaces, lines and planes in space, linear transformations, eigenvalues and eigenvectors.
Prerequisite: MTH 107

MTH 165 Calculus I (4 Credits)
This course introduces the learner to basic concepts of calculus, including limits, derivatives, and integrals. Problem analysis involving rates of change and optimization are emphasized in this course.
Prerequisite: MTH 107

MTH 166 Calculus II (4 Credits)
This course teaches students techniques of integration, polar and parametric equations, sequences and series, and power series and their applications.
Prerequisite: MTH 165

MTH 210 Elementary Statistics (3 Credits)
Elementary Statistics is an introduction to statistical methods of gathering, presenting and analyzing data. Topics include probability and probability distributions, confidence intervals, hypothesis testing, and linear regression and correlation.
Prerequisite: MTH 102

MTH 265 Calculus III (4 Credits)
Student will learn multivariable and vector calculus including partial derivatives, multiple integration and its applications, line and surface integrals, Green's Theorem, and Stoke's Theorem.
Prerequisite: MTH 166

MTH 266 Differential Equations (3 Credits)
Solution of elementary differential equations by elementary techniques, Laplace transforms, systems of equations, matrix methods, numerical techniques, and applications.
Prerequisite: MTH 265

MTH 277 Math for Elementary Teachers I (3 Credits)
Participants in this course will develop a deep understanding of mathematical concepts, procedures, and skills that are essential to being able to teach children mathematics in the elementary grades. Current trends in mathematics are emphasized, with particular attention to documents created by the National Council of Teachers of Mathematics.

MTH 342 Environmental Research Statistics (3 Credits)
This course is an overview of statistical techniques used to analyze environmental science research data. The focus is on confidence intervals, t-tests, ANOVA, regression analysis, nonparametric tests, and design of experiments.
Prerequisite: MTH 210

MTH 377 Math for Elementary Teachers II (3 Credits)
This course utilizes a problem-solving approach with topics significant to grades 1-8 standards-based education. This course includes: properties of geometric shapes, measurement, triangle congruence and similarity, geometric constructions, Cartesian coordinates, symmetry, and selected topics from probability and statistics.
Prerequisite: MTH 277