Course Descriptions

The credit courses offered by the College are listed in alphabetical order by discipline/program area. A general description of the content of each course is included. Special Topics are courses that are numbered 075-077, 175-177, and 275-277 and the credits will vary depending on course content. The description and outline is approved by the Dean and filed with the Registrar.

In December 2005, the Colorado Commission on Higher Education established a statewide transfer policy for general education course credits. This policy is also known as GT-Pathways, and more information can be found on the Colorado Department of Education website and https://highered.colorado.gov/transfer-degrees. Although TSC does not offer all of the courses listed, if you are transferring any of these courses to Trinidad State from an accredited post-secondary institution, these courses will be accepted at Trinidad State College.

ANTHROPOLOGY

MAT 0200   Algebraic Literacy Lab
1.0 Credit
Supports skill development in students registered in Algebraic Literacy. Topics covered in this course include those defined in Algebraic Literacy and/or any prerequisite skills needed by the student.

MAT 0250   Quantitative Literacy
4.0 Credits
Develops number sense and critical thinking strategies, introduces algebraic thinking, and connects mathematics to real world applications. Topics in this course include ratios, proportions, percent, measurement, linear relationships, properties of exponents, and math learning strategies. This course prepares students for math for liberal arts, statistics, integrated math, and college level career math courses.

MAT 0300   Algebraic Literacy
4.0 Credits
Develops algebraic skills necessary for manipulating expressions and solving equations. Topics in the course include radicals, complex numbers, polynomials, factoring, rational expressions, quadratic equations, absolute value equations, systems of linear equations in two variables, related applications, and linear inequalities. This course prepares students for College Algebra (MAT 1340) and Finite Math (MAT 1320).

MAT 1120   Math for Clinical Calculations
3.0 Credits
Covers the mathematical calculations needed for enteral and parenteral medication administration. It is designed for students in the health disciplines. Topics include measurements, conversion between various systems of measurements, and methods of solving problems related to drug dosage and medication administration.

MAT 1140   Career Math:
3.0 Credits
Covers material designed for career and technical students who need to study particular mathematical topics. Topics include measurement, algebra, geometry, statistics, and graphs. These are presented at an introductory level and the emphasis is on applications.

MAT 1150   Technical Mathematics
4.0 Credits
Covers mathematical material designed for career and technical students. Topics include measurement, algebra, geometry, trigonometry, and vectors. These are presented at an introductory level and the emphasis is on applications.

MAT 1160   Financial Mathematics
3.0 Credits
Covers the fundamentals of financial mathematics. Topics include pricing, taxes, insurance, interest, annuities, amortization, and investments.

MAT 1220   Integrated Math I: GT-MA1
3.0 Credits
Engages students in the concepts underlying elementary level mathematics. The course emphasizes critical thinking and applications. Topics include the structure of number systems, an analysis of numerical operations, set properties, numerical and geometric patterns, and a variety of problem solving skills. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 1230   Integrated Math II: MA1
3.0 Credits
Engages students in the concepts underlying elementary level mathematics. The course emphasizes critical thinking and applications. Topics include probability, statistics, measurement, Euclidean geometry, and algebraic methods. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 1240   Mathematics for the Liberal Arts: GT-MA1
4.0 Credits
Highlights connections between mathematics and the society in which we live and is intended for liberal arts majors. Topics include set theory and logic, mathematical modeling, probability and statistical methods, and consumer mathematics. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 1260   Introduction to Statistics: GT-MA1
3.0 Credits
Introduces descriptive and inferential statistics, with an emphasis on critical thinking and statistical literacy. Topics include methods of data collection, presentation and summarization, introduction to probability concepts and distributions, and statistical inference of one and two populations. This course uses real world data to illustrate applications of a practical nature. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 1320   Finite Mathematics: GT-MA1
4.0 Credits
Covers topics including functions, matrix algebra, linear programming, and an introduction to probability and counting techniques. Emphasis is on applications. This course may include other topics such as statistics when time permits. This course is primarily intended for business, life science, or social science majors. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 1340   College Algebra: GT-MA1
4.0 Credits
Focuses on a variety of functions and the exploration of their graphs. Topics include: equations and inequalities, operations on functions, exponential and logarithmic functions, linear and non-linear systems, and an introduction to conic sections. This course provides essential skills for

Science, Technology, Engineering, and Math (STEM) pathways. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 1400　　Survey of Calculus: GT-MA1
4.0 Credits
Includes derivatives, integrals, and their applications, with attention restricted to algebraic, exponential, and logarithmic functions for business, life science and/or social science majors. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 1420　　College Trigonometry: GT-MA1
3.0 Credits
Explores trigonometric functions, their graphs, inverse functions and identities. Topics include: trigonometric equations, solutions of triangles, trigonometric form of complex numbers, and polar coordinates. This course provides essential skills for Science, Technology, Engineering, and Math (STEM) pathways. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 1440　　Pre-Calculus: GT-MA1
5.0 Credits
Extends algebraic concepts and explores the subject of trigonometry. Topics include: polynomial, rational, logarithmic, and exponential functions, trigonometric and inverse trigonometric functions and their graphs, trigonometric identities, and applications. This course provides essential skills for Science, Technology, Engineering, and Math (STEM) pathways. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 2410　　Calculus I: GT-MA1
5.0 Credits
Introduces single variable calculus and analytic geometry. It includes limits, continuity, derivatives, and applications of derivatives as well as indefinite and definite integrals and some applications. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 2420　　Calculus II: GT-MA1
5.0 Credits
Continues the study of single variable calculus which will include techniques of integration, analytic geometry, improper integrals, convergence of infinite numerical series and power series. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 2430　　Calculus III: GT-MA1
4.0 Credits
Focuses on the traditional subject matter of multivariable Calculus. Topics include vectors, vector-valued functions, partial derivatives, analytic geometry, multiple integrals, line integrals and applications. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 2431　　Calculus III with Engineering Applications: GT-MA1
5.0 Credits
Focuses on the traditional subject matter of multivariable Calculus with an additional emphasis on word problems and problem solving. Topics include vectors, vector-valued functions, partial derivatives, analytic geometry, multiple integrals, line integrals, Stokes', Divergence Theorems and Green's Theorems, and applications. This is a statewide Guaranteed Transfer course in the GT-MA1 category.

MAT 2560　　Differential Equations: GT-MA1
3.0 Credits
Explores techniques of problem solving and applications. Topics include first, second, and higher order differential equations, series methods, approximations, systems of differential equations, and Laplace transforms. This is a statewide Guaranteed Transfer course in the GT-MA1 category.