

Course #	Course	Description	Grade Level	Prerequisites	Notes
041110	Intermediate Algebra	Intermediate Algebra encourages and enables students to use the language, symbols and notation of mathematics, to be confident using mathematics to analyze and solve problems both in and out of school, and to develop the knowledge and skills necessary to pursue further studies in mathematics. The course includes a thorough review of linear relationships, an introduction to exponential and quadratic relationships, a survey of transformations and a solid study of secondary level statistics and probability. This is an NCAA Approved Course.	9		
04201	Geometry	Geometry students will study points, lines, line segments, rays, planes, and vectors in their exploration of angles, polygons, circles, lengths, areas, and volumes. Mathematical patterns and life's patterns will also be explored. Emphasis will be placed on congruent figures, as well as similar figures and their ratios, and right triangle trigonometric ratios. The concept of proof will be investigated and the utility of logic will be emphasized. Algebraic skills will be used to build further understanding of the interconnectedness of mathematics. This is an NCAA Approved Course.	10		

04301	Advanced Algebra	<p>Advanced Algebra students will learn how to recognize, describe and generalize patterns to make predictions; use algebraic symbols and operations to represent and analyze mathematical structures and relationships; analyze the relationships and interactions between quantities to model and compare patterns of change for complex functions. Students will study sequence, linear, polynomial, and exponential functions, logarithmic functions, and the graphs that correspond to them, transformations, growth, and decay models; explore data through statistical graphs, measures of central tendency, lines of best fit; learn how to factor, solve radicals, and understand complex numbers, trigonometric functions; and use graphing calculators to solve problems. In addition, students will review and prepare for the Math portion of the MCA III (Minnesota Comprehensive Assessment). This is an NCAA Approved Course.</p>	11		
047321	CIS Math Modeling	<p>Math Modeling CIS introduces students to the art of mathematical prediction through algebraic modeling and elementary probability theory. The class covers techniques of representing the behavior of real-world data with algebraic equations, including linear, polynomial, exponential and logarithmic functions. Students also learn basic probability theory including counting methods and conditional probability. This is an NCAA Approved Course.</p>	12		

04811	College Prep Algebra and Statistics	College Prep Algebra and Statistics students will use algebraic symbols and operations to represent and analyze mathematical structures and relationships. The course includes practical applications of algebraic skills used to further and deepen understanding of the interconnectedness of mathematics, through linear exponential and quadratic relationships.	12		
04401	Precalculus	This is the fourth year of the sequential curriculum. Analysis is a year-long pre-calculus course, which uses all prerequisite mathematics in the further study of algebra and trigonometry. The general topics included in this course are: polynomial functions, inequalities, logarithms, trigonometric functions, complex numbers, sequence and series, and analytic geometry.	11,12		