

MATHEMATICS

ALGEBRA I

CLASS NUMBER	1604/1605	CLASS LENGTH	2 semesters
GRADE LEVEL	9, 10, 11, 12	CREDIT	1.0
CLASS FEES	None	CREDIT AREA	Math
PREREQUISITES	None	NOTES	None

This course will teach students to work with variables, solving and graphing first and second degree polynomial equations, as well as exponential equations. Students will need to solve real-world problems using their skills with solving and graphing these equations.

GEOMETRY

CLASS NUMBER	1612/1613	CLASS LENGTH	2 semesters
GRADE LEVEL	9, 10, 11, 12	CREDIT	1.0
CLASS FEES	None	CREDIT AREA	Math
PREREQUISITES	Algebra I	NOTES	None

This course will teach students to use deductive reasoning skills, evaluate two- and three-dimensional shapes, parallel lines, and constructions. Transformations of those shapes are also emphasized. Students will need to solve real-world problems using these skills and properties.

ALGEBRA II

CLASS NUMBER	2604/2605	CLASS LENGTH	2 semesters
GRADE LEVEL	9, 10, 11, 12	CREDIT	1.0
CLASS FEES	None	CREDIT AREA	Math
PREREQUISITES	Algebra I & Geometry	NOTES	None

This class begins with a review of Algebra and Geometry topics, then moves farther topics such as higher degree polynomials, rational exponents, complex numbers, sequences and series, and many others. Students will solve complex real-world problems and scenarios using their advanced mathematical skills.

ALGEBRA II WITH FINANCIAL APPLICATIONS

CLASS NUMBER	2602/2603	CLASS LENGTH	2 semesters
GRADE LEVEL	11, 12	CREDIT	1.0
CLASS FEES	None	CREDIT AREA	Math
PREREQUISITES	Algebra I & Geometry	NOTES	None

This class is Algebra II with more practical, financial applications. This course is not recommended for students who are planning to attend a 4-year college or university.

STATISTICS

CLASS NUMBER	3600	CLASS LENGTH	1 semester
GRADE LEVEL	11,12	CREDIT	0.5
CLASS FEES	None	CREDIT AREA	Math
PREREQUISITES	Algebra II	NOTES	None

TRIGONOMETRY

CLASS NUMBER	3601	CLASS LENGTH	1 semester
GRADE LEVEL	11,12	CREDIT	0.5
CLASS FEES	None	CREDIT AREA	Math
PREREQUISITES	Algebra II	NOTES	None

PRE-CALCULUS

CLASS NUMBER	3602/3603	CLASS LENGTH	2 semesters
GRADE LEVEL	10, 11, 12	CREDIT	1.0
CLASS FEES	None	CREDIT AREA	Math
PREREQUISITES	Algebra II	NOTES	None

This class is designed for more advanced Algebra and Geometry topics. The focus is on non-linear relationships, exponential and logarithmic properties, and beginning trigonometric properties. The goal of this course is to strengthen advanced math skill and prepare students for higher level mathematics.

COLLEGE ALGEBRA

CLASS NUMBER	3604	CLASS LENGTH	1 semester
GRADE LEVEL	11,12	CREDIT	0.5
CLASS FEES	None (unless taken for college credit)	CREDIT AREA	Math
PREREQUISITES	Algebra II and/or Pre-Calculus	NOTES	None

This is a college level math class (duel-credit sometimes available through AIMS Community College in Greeley). This class will focus on college level math skills. This includes more advanced topics including non-linear systems, conic sections, permutations, combinations, matrix operations, and the binomial theorem.

COLLEGE TRIGONOMETRY

CLASS NUMBER	3605	CLASS LENGTH	1 semester
GRADE LEVEL	11,12	CREDIT	0.5
CLASS FEES	None (unless taken for college credit)	CREDIT AREA	Math
PREREQUISITES	College Algebra	NOTES	None

This is another college level math class (duel-credit sometimes available through AIMS Community College in Greeley). This class will focus on skills related to trigonometry, including both properties and graphing of the six trigonometric functions. Also included in this course are complex numbers, vectors, and several advanced math skills geared towards preparation for Calculus.

ADVANCED PLACEMENT CALCULUS

CLASS NUMBER	4604/4605	CLASS LENGTH	2 semesters
GRADE LEVEL	11,12	CREDIT	1.0
CLASS FEES	None	CREDIT AREA	Math
PREREQUISITES	College Trigonometry	NOTES	None

This course teaches students basic calculus topics, including limits, derivatives, integrals and basic graph theory. Applications of these skills include optimizations, slope fields, areas and volumes of solids created using revolutions. Calculus advances algebra, geometry, and trigonometry skills with a focus on higher level math and science applications.
