

## Cokeville High School

Track	7th	8th	9th	10th	11th	12th
#1	7th Math	Pre -Alg	Algebra I	Algebra II	Geometry	Pre-Calc
#2	7th Math/Pre-Alg	Algebra I	Algebra II	Geometry	Pre-Calc	Calculus
#3	7th Math/Pre-Alg	Algebra I	Algebra II	Geometry	Pre-Calc	USU Math 1050
#4	7th Math	Pre -Alg	Algebra I	Algebra II	Geometry	Applied Mathematics
Yellow = graduation requirement	Hathaway Requirement					

### Algebra 1

Algebra I provides a formal development of the algebraic skills and concepts necessary for students to succeed in advanced courses. In particular, the instructional program in this course provides for the use of algebraic skills in a wide range of problem-solving situations. The concept of function is emphasized throughout the course. Topics include: (1) operations with real numbers, (2) linear equations and inequalities, (3) relations and functions, (4) polynomials, (5) algebraic fractions, (6) nonlinear equations, and (7) counting principles and probabilities.

- Credits: A one credit course
- Fulfills the Algebra I requirement for graduation and Hathaway
- Students will take this course in 8<sup>th</sup> or 9<sup>th</sup> grade

### Algebra II

*Algebra II* is a course that extends the content of Algebra I and provides further development of the concept of a function. Topics include: (1) relations, functions, equations and inequalities, (2) polynomials; (3) algebraic fractions; (4) logarithmic and exponential functions; (5) sequences, (6) systems of linear equations, and (7) counting principles and probability.

- Recommended Prerequisite: Algebra I
- Credits: A one credit course
- Fulfills the Algebra II requirement for graduation
- Students will complete in 9<sup>th</sup> or 10<sup>th</sup> grade

## Geometry

Geometry is a course is designed to emphasize the study of the properties and applications of common geometric figures in two and three dimensions. It includes the study of transformations and right triangle trigonometry. Inductive and deductive thinking skills are used in problem solving situations, and applications to the real world are stressed. It also emphasizes writing proofs to solve (prove) properties of geometric figures.

- Recommended Prerequisite: Algebra II
- Credits: A one credit course
- Fulfills the Geometry requirement for graduation
- Students will complete in 10<sup>th</sup> or 11<sup>th</sup> grade

## Pre-Calc

Pre-calculus is College Level Algebra. It will continue to extend the ideas of (1) functions: graphs, transformations, combinations and inverses, (2) Polynomials, (2) rational expressions, (3) exponential and logarithmic functions and applications, (4) Systems of equations and matrices. Graphing calculator required.

Pre-calculus includes Trigonometry. Topics for this course include (1) trigonometric functions, (2) trigonometric equations, and (3) introduction to vectors.

This course is taught as a yearlong course. Students may opt to take this course as concurrent enrollment through Utah State University.

- Recommended Prerequisite: Geometry and Math ACT score of at least 23 or satisfactory score on Math Placement Exam (1010 final or Accuplacer)
- Credits: A one high school credit (6 credits through USU)
- Fulfills a math elective
- Students will complete in 11<sup>th</sup> or 12<sup>th</sup> grade

**USUS MATH 1050, College Algebra, QL, 4 credits.** Functions: graphs, transformations, combinations and inverses. Polynomial, rational, exponential, logarithmic functions and applications. Systems of equations and matrices. Graphing calculator required. Prerequisite: C or better in MATH 1010, or Math ACT score of at least 23 or satisfactory score on Math Placement Exam within the Math prerequisite acceptability time limit.

## **Calculus**

Calculus is an essential language for science and engineering. Topics in this course include (1) rates of change, (2) differential and integral calculus, (3) transcendental functions, (4) analytic geometry and applications.

- Recommended Prerequisite: Pre Calculus
- Credits: A one high school credit
- Fulfills a math elective
- Students will complete in 12<sup>th</sup> grade

## **Applied Mathematics**

This course is designed to have students refresh and review their basic Algebra Skills upon completion of the Geometry course. There will be a strong focus on solving linear and quadratic equations and right triangle trigonometry and rational expressions. This course will focus on real world problems and how to solve them.

- Recommended Prerequisite: Geometry
- Credits: A one credit course
- Fulfills the math elective credit
- Students will complete in 11<sup>th</sup> or 12<sup>th</sup> grade