

# MATHEMATICS

**Note: Three credits are required for graduation for juniors and seniors. Four credits are needed for those that graduate on or after 2010-2011**

## **INTENSIVE MATH**

Course #: 1200400

Grade Offered: 9, 10, 11, & 12

Course Length: One year

Prerequisite: None

**Note: This remedial course may be used only for elective credit. It may not be used to meet graduation requirements for Mathematics.**

The purpose of this course is to enable students to develop mathematics skills and concepts through remedial instruction and practice.

## **ALGEBRA I-A**

Course #: 1200370

Grade Offered: 9, 10, 11, & 12

Course Length: One year

Prerequisite: Teacher recommendation

This is the first of a two-year sequence of courses; the second course is Algebra I-B. This sequence is designed

for the low performing math student who must meet the Algebra I requirement for graduation and who needs a longer period of time (two years) to learn the material of Algebra I. This course will develop the processes that can be used to solve a variety of mathematical and real-world problems. A student will receive one math credit for passing this course.

## **ALGEBRA I-B**

Course #: 1200380

Grade Offered: 10, 11, & 12

Course Length: One year

Prerequisite: Teacher recommendation and passing grade in Algebra I-A

This is the second of a two-year sequence of courses, the first is Algebra I-A. This sequence is designed for the low performing math student who must meet the Algebra I requirement for graduation and who needs a longer period of time (two years) to learn the material of Algebra I. This course will develop the processes that can be used to solve a variety of mathematical and real-world problems. A student will receive one math credit for passing this course.

## **ALGEBRA I**

Course #: 1200310

Grade Offered: 9, 10, 11, & 12

Prerequisite: Teacher recommendation

The purpose of this course is to provide a foundation for more advanced math courses and to develop thinking skills. A passing grade in this course is required for graduation.

## **ALGEBRA I HONORS**

Course #: 1200320

Grade Offered: 8 & 9

Course Length: One year

Prerequisite: Teacher recommendation

This course provides rigorous and in-depth study of algebra emphasizing deductive reasoning skills as a foundation for more advanced mathematics courses

## **INFORMAL GEOMETRY**

Course #: 1206300

Grade Offered: 10, 11, & 12

Course Length: One year

Prerequisite: Algebra I or equivalent

The purpose of this course is to develop the geometric knowledge that can be used to solve a variety of real world and mathematical problems. The content of this course is less difficult than Geometry as it does not include any formal proofs; but does require the student to use logical reasoning. It is designed to be the third (and final) required math credit for the student completing the Algebra I-A, Algebra I-B sequence.

## **GEOMETRY**

Course #: 1206310

Grade Offered: 10, 11, & 12

Course Length: One year

Prerequisite: Algebra I with a "C" average or better

The purpose of this course is to emphasize basic terms, postulates, and theorems; to expand their understanding of basic geometric concepts that occur in everyday life; to describe changes in shape and size (transformational geometry); to build on their logical reasoning skills by writing and interpreting conditional statements and proofs; to build on their knowledge of triangles, quadrilaterals, circle, figures in a plane or in space, parallel and perpendicular lines, congruence, similarity, perimeter, surface area, volume, right triangles, and investigate trigonometric ratios.

## **GEOMETRY HONORS**

Course #: 1206320

Grade Offered: 9, 10, 11, & 12

Course Length: One year

Prerequisite: "C" in Algebra I Honors

In this course, students will learn the material covered in Geometry (see Geometry) with additional supplementary material and activities.

## **ALGEBRA II**

Course #: 1200330

Grade Offered: 10, 11, & 12

Course Length: One year

Prerequisite: Algebra I and Geometry with a "C" average or better and teacher recommendation. Students who struggled with Algebra I may want to refer to Liberal Arts Math.

The purpose of this course is to continue the study of algebra and to provide the foundation for applying these skills to other mathematical and scientific fields. **This course is an introduction to higher math.**

## **ALGEBRA II HONORS**

Course #: 1200340

Grade Offered: 10, 11, & 12

Course Length: One year

Prerequisite: "A" in Algebra I and Geometry, or "C" in Algebra I Honors and Geometry Honors

Just like Algebra II, this course is the gateway to higher mathematics, so the material is challenging. It provides a more rigorous and in-depth course of study. Topics from Algebra I are reviewed; some briefly and others in greater detail. New topics such as matrices, probability, imaginary numbers and conic sections are covered.

**LIBERAL ARTS MATH**

Course #: 1208300

Grade Offered: 11 & 12

Course Length: One year

Prerequisite: Passing grade in Algebra I and Geometry or in Algebra I-A, Algebra I-B and Informal Geometry

The purpose of this course is to review Algebra and Geometry skills necessary for success in higher math courses. This course is designed for students who have had difficulty in Algebra I or higher courses.

**PRECALCULUS**

Course #: 1202340

Grade Offered: 11 & 12

Course Length: One Year

Prerequisite: "B" or better in Algebra II

The purpose of this course is to provide students with a study of the trigonometric, exponential, and logarithmic functions including their relationship to other concepts from algebra and geometry in preparation for Calculus. Topics shall include, but not be limited to, linear equations, curve sketching, algebraic functions, trigonometric functions, trigonometric identities, equations, right triangles, oblique triangles, polar graphs, complex numbers, conic sections, exponential functions, logarithmic functions, limits, and an introduction to derivatives and integrals.

**AP CALCULUS AB**

Course #: 1202310

Grade Offered: 12

Course Length: One Year

Prerequisite: "C" or better in Pre-calculus

The purpose of this course is to provide a foundation for the study of advanced mathematics. Topics shall include, but not be limited to functions, limits, derivatives (rates of change), integrals (antiderivatives), and applications of integrals.

**MATH: 9-12**

Course #: 7912050

Grade Offered: 9, 10, 11, & 12

Course Length: One Year

Prerequisite: None

The purpose of this course is to provide instruction in math concepts and procedures to enable students with disabilities who are functioning at independent levels to prepare to participate effectively in post-school adult living and in the world of work.