MATH / SCIENCE

General Course Description

The mathematics/science program is designed to integrate mathematics and science. This unified approach treats mathematics both as a science and as a language of the other sciences. Students need to know scientific facts and concepts, and to understand the fundamentals of how these scientific facts are established. Competence in both mathematics and science in today's society requires appropriate technology skills.

The above philosophy requires a flexible and, frequently, non-traditional curriculum. It provides a framework for the learning goals that will follow. These goals reflect a student's total experience in the math/science program.

While specific goals may be listed once, they are re-taught and reinforced throughout the program. Advanced placement classes include: Calculus AB, Calculus BC, Biology, Chemistry, Physics B and Physics C and Environmental Science.

Students entry level placement will depend on past experiences and present ability. To enter the Math/Science Concentration program at the high school level, the student must have completed all mathematics pre-requisites for Algebra II/Trigonometry or beyond.

Program Goals

1. The student will be able to recognize and apply appropriate mathematical and computer techniques to scientific and other applied problems.
2. The student will be able to recognize and successfully use the language, notation, operations, and deductive methods of mathematics.
3. The student will be able to organize, interpret and communicate data gathered from observations of nature.
4. The student will use in-depth knowledge of the methods and concepts of algebra, geometry, trigonometry functions, calculus, and advanced topics.
5. The student will use computers to receive, organize, store, analyze, display, and interpret information.
6. The student is able to demonstrate detailed knowledge in physics, chemistry, biology, earth science, and advanced topics in science.
7. The student is able to gather and utilize information through a variety of sources including laboratory and field experiences, resource people, and library research.
8. The student is knowledgeable of career choices related to the math/science area.
9. The student is able to participate successfully in science and mathematics competitions, including Science Fair.

Grade	Semester	Course(s)
Grade 6	1 & 2	Pre-Algebra Life Science
Grade 7	3 & 4	Algebra I Physical Science
Grade 8	5 & 6	Geometry Earth Science
Grade 9	7 & 8	Algebra II / Trigonometry Biology and/or Chemistry
Grade 10	9 & 10	Pre-Calculus Chemistry and/or Physics and/or Anatomy & Physiology AP Chemistry
Grade 11	11 & 12	AP Calculus (AB) Physics and/or Chemistry or AP Chemistry AP Physics (B) AP Biology or AP Environmental Science
Grade 12	13 & 14	AP Calculus (BC) and AP Physics (B) and/or AP Biology and/or AP Chemistry and/or AP Environmental Science or AP Statistics (on-line)