



~SCIENCE~

BIOLOGY

Two Semesters Grades 9-10

This course is an overview of the fundamentals of biology. Students learn about the structure and biochemical processes of the cell, genetics and evolution, ecology, and organismal biology. Students read and write about complex processes and are introduced to laboratory skills, in particular use of the microscope and dissection of specimens. The course allows students make informed decisions regarding the biological issues that face society.

MARINE BIOLOGY

Two Semesters Grades 11-12

PREREQUISITE: B average in Biology, and approval of instructor.

This course further develops concepts learned in Biology. Students investigate the physical, chemical, and geological characteristics of the world's oceans as well as the structure, functions, behaviors, and classification of a variety of plant and animals that live in the marine environment. Students learn how energy flows and matter cycles through the Earth's oceans and also consider human impact on marine life. Laboratory activities include dissection, experimentation, data collection, and data analysis that develop scientific investigation and scientific thinking skills. Local field trips and hands-on experience add to the excitement of studying the wonderful world of marine biology.

CHEMISTRY

Two Semesters Grades 10-12

PREREQUISITE: B average in Geometry and Biology, and approval of instructor.

This is a college preparatory class designed to introduce students to the nature of matter. The major topics presented in this course are nomenclature, chemical reactions, stoichiometry, atomic structure, periodicity, bonding, molecular geometry, phases of matter, equilibrium, thermodynamics and acid-base chemistry.

HONORS CHEMISTRY

Two Semesters Grades 10-12

PREREQUISITE: min. B+ average in Geometry and Biology and approval of instructor.

This is a higher level chemistry course where students attain a depth of understanding of fundamentals and competence in dealing with chemical problems. Quantitative differences between this course and the regular *Chemistry* course appear in the number of topics treated, the time spent on the course by students and the nature and variety of experiments done in the laboratory.

HUMAN ANATOMY & PHYSIOLOGY

Two Semesters Grades 11-12

PREREQUISITE: Department approval.

This lab course will cover the basic structure and functions of the human body and will require the ability to memorize and analyze large amounts of information about muscles, nerves, and joints, as well as the digestive, nervous, urinary, circulatory and sensory systems. Dissections are assigned.

PHYSICS

Two Semesters Grades 11-12

PREREQUISITES: Algebra II.

This is a college prep lab course covering the principles of physics; motion, force, energy, conservation of mass and momentum, mechanics, celestial movement, waves, light and electromagnetism. The course uses technical analysis as well as equipment and devices to study mechanical, fluid, electrical and thermal energy systems.