

## **Science Courses**

### **Integrated Science**

1 credit 2 semesters

Prerequisites: none

Content: This course is designed to satisfy a science requirement for students who need science credit for high school graduation but do not plan to attend college. The material is presented on a practical, everyday level. A variety of topics including cells, animals, humans, and the environment will be studied.

### **Physical Science**

1 credit 2 semesters

Prerequisites: None. (Recommended for freshmen.)

Content: Physical science is the study of basic chemistry and physics. This course stresses the use of mathematics and language in science. The physical science topics of matter, motion, energy, light and sound, and electricity receive broad coverage.

### **Applied Chemistry**

1 credit 2 semesters

Prerequisites: none

Content: Applied Chemistry is a class for students who are interested in hands-on activities that deal with chemistry concepts. Class includes lecture and lab. Topics include the structure of atoms, the periodic table, formation of compounds, chemical reactions and equations, acid/base reactions. Students will also partake in a forensic unit. Student will analyze fingerprints, handwriting samples, pen inks, soil and hair samples.

### **Biology**

1 credit 2 semesters

Prerequisites: None. Recommended for sophomores.

Content: This course is designed to introduce the student to a variety of biological topics. These topics include scientific investigation, classification, cells, evolution, invertebrate animals, and the environment. Quarter projects are regularly assigned. Lab sessions are performed to reinforce class discussion. Chapter tests and comprehensive semester exams are given.

## **Chemistry I**

1 credit, 2 semesters

Prerequisites: Physical Science

Content: Chemistry I is an introductory chemistry course for students who are interested in college. This class focuses on critical thinking and problem solving skills. Class includes lecture and lab. Topics include data analysis, properties and changes in matter, the structure of the atom, ionic and covalent compounds, chemical reactions, moles, stoichiometry, acid/base chemistry, and organic chemistry.

## **Physics**

1 credit 2 semesters

Prerequisites: Physical Science, Geometry, and Algebra II. Recommended for seniors only.

Content: This is a study of heat energy, light energy, electrical energy, nuclear energy, the inter-relationships and conservation laws of motion, and the basic structure of matter.

## **Anatomy-Physiology**

1 credit 2 semesters

Prerequisites: Biology I. Recommended for juniors and seniors only.

Content: This course stresses the complexity of the human body through studying its structures, functions, cell biology, and pathology (breakdowns). The circulatory system, nervous system, tissues, skeletal system, muscle mechanics, nutrition, digestive system, and respiratory system are studied.

## **Botany**

Prerequisites: Biology with a grade of C or better and teacher recommendation.

Content: This semester course will study the different divisions in the plant kingdom. Plant anatomy, physiology, and identification. This class is a college prep type course, which will have research projects and papers.

## **Zoology**

Prerequisites: Biology with a grade of C or better and teacher recommendation.

Content: This semester course will be designed to study different phylums in the animal kingdom. The students will study the ecology, behavior, and anatomy of these phylums. This is a college prep type course, which will have research projects and papers.