

Anatomy and Physiology Honors

20003505

1 year, Grades 11-12

Prerequisite: Biology I with a C average or Integrated Science 3 with C average

This course is a “must” for all health professions. Study the human body parts and how they work, starting with the cell and ending with the total function of the body. The purpose of this course is to provide students with rigorous content and laboratory activities in the structures of the components of the human body.

Chemistry I

20033404

1 year, Grade 10-12

The purpose of this course is to provide students with the study of the composition, properties and changes associated with matter. The content include, but not limited to, classification and structure of matter, atomic theory, periodic table, bonding, chemical formulas, chemical reactions and balanced equations, behavior of gases, physical changes, acids, bases and salts and energy associated with physical and chemical changes. Opportunities to understand the interactions of science with technology and society will be provided.

Chemistry I Honors

20033505

1 year, Grades 10-12

Prerequisite: C average or better in Honors Science, Algebra I and Geometry

Chemistry honors is the advanced study of matter and how it reacts with other matter. The purpose of this course is to provide students with the study of the composition, properties and changes associated with matter. The content include, but not limited to, classification and structure of matter, atomic theory, periodic table, bonding, chemical formulas, chemical reactions and balanced equations, behavior of gases, physical changes, acids, bases and salts and energy associated with physical and chemical changes. Opportunities to understand the interactions of science with technology and society will be provided. It requires much memorization and algebra along with good lab technique.

Advanced Placement Chemistry I

20033709

1 year, Grades 11-12

Prerequisite: Chemistry I or Chemistry I Honors

AP Chemistry is a first-year college-level chemistry course that deals with the topics of acid-base reactions, chemical kinetics, thermodynamics and electrochemistry. Students anticipating taking this course should be highly motivated and have excellent grades in Chemistry I or Chemistry I Honors.

Earth/Space Science

20013104

1 year, Grade 11

The purpose of this course is to develop and apply concepts basic to the Earth, its materials, processes, history, and environment in space. Course content include, the nature of science, the universe and the solar system, the developmental cycle of stars, the earth, moon system, space exploration, formation of igneous, sedimentary, and metamorphic rocks and identification and classification of rocks and minerals, geological divisions of the earth, formation of land forms and basic mountain types, fundamentals of plate tectonics, formation of rivers and water systems, glaciers, hydrologic cycle, physical oceanography, meteorology, including development of hazardous weather, weather mapping, weather systems, frontal development, and satellite imagery, types of soils and erosion, and renewable and nonrenewable energy resources.

Physical Science

20033104

1 year, Grade 9

The purpose of this course is to provide opportunities to study concepts of matter, energy and forces, and their applications through exploratory investigations and activities. Course content includes structure of atoms, structure and properties of matter, chemical reactions, entropy and conservation of energy, interactions of energy and matter, motions and forces, and interactions among science, technology and society. This course will include laboratory investigations that incorporate the use of measurement, problem solving, laboratory apparatus, safety procedures and experimental procedures.

Physics I Honors

20033905

1 year, Grades 11-12

Prerequisite: B average or better in Chemistry honors and TEACHER APPROVAL

Physics is a mathematical science course that deals with the laws of nature such as gravity, motion, electricity, and light.

Advanced Placement Physics 1

1 year, Grades 11-12

Advanced Placement Physics 1 is the equivalent to a first-semester college course in algebra-based physics. Covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; mechanical waves and sound. It will also introduce electric circuits.

Biology 1

20003104

1 year, Grade 10

The purpose of this course is to provide exploratory experiences and laboratory and real-life applications in the biological sciences. Laboratory investigations, which include the use of scientific research, measurement, laboratory technologies and safety procedures, are an integral part of this course.

Biology I Honors

20003205

1 year, Grade 9

Prerequisite: Physical Science Honors with a C average or better

A higher level course dealing with the structure and function of plants and animals. Laboratory investigations, which include the use of scientific research, measurement, laboratory technologies and safety procedures, are an integral part of this course.

Advanced Placement Biology

20003409

1 year, Grades 11-12

Prerequisite: Biology Honors and Chemistry Honors

The purpose of this course is to provide a college-level course in the biological science and to prepare students to seek credit and/ or appropriate placement in college biology courses. The content should include molecular and cellular biology, organismal biology and popular biology, along with other appropriate topics. Opportunities to understand the interactions of science with technology and society should be provided. Specific AP lab activities are course requirements. All students enrolled in AP biology are REQUIRED to take the national AP biology exam.

Advanced Placement Environmental Science

20013809

1 year, Grades 10-12

Prerequisite: Completion of biology and a 2.0 GPA

Have you ever hugged a manatee? Have you ever walked in a rain forest? Where does your drinking water come from? Study the local and global environment, work with current national and international agencies to gather and interpret data for world-wide distribution, help design informative and educational displays for city, county and state contests, and participate in Global Research on how to effectively change, adapt, and improve the environment. Hands on and field experiences is an important part of the program. Computer skills helpful but not required.

Marine Science 1 Honors

20025105

1 year, Grades 11-12

This course is designed to meet the needs of the student who wishes to obtain an in-depth awareness of coastal and marine systems. The course will include a study of the physical, chemical and geological aspects of oceanography, marine biology, the coastal environment and the interrelationships among the disciplines. Laboratory investigations that include the use of scientific inquiry, research, measurement, problem solving, laboratory apparatus and technologies, experimental procedures, and safety procedures are an integral part of this course.

Forensics Science 1 Honors

20024805

1 year, Grades 11-12

This course offers extensive laboratory experience that integrates the concepts learned in biology, chemistry and physics to strengthen individual skills in scientific reasoning and observation. Using inquiry-based settings, students will learn basic scientific and mathematical methods and models required in forensic science. Representative skills are: the determination of the force and motion of a vehicular crash, or the logical sequence of events determined through blood spatter analysis. The course also includes examination of physical evidence, correct crime scene protection and investigation, forensic entomology, ballistics and trajectory, and forensic anthropology.