

Honors Biology (113)**Grade 9****Honors****Student selection based upon high school placement test.**

This honors level course that involves a phylogenetic study of life from unicellular level to the multicellular level, the manner in which living organisms interact, their evolutionary nature, the life processes common to all living things and the basic principles of genetics and heredity. Laboratory procedures and techniques will accompany topics discussed in classroom. Recommended for the student with a strong aptitude for science or who plans to pursue a science-related career. Related field trips provide the student with access to techniques used in modern biotechnology laboratories.

Biology (112)**Grade 9****CPI**

This standard level course includes a phylogenetic study of the various forms of life from the unicellular level to multicellular level, the manner in which organisms interact, their evolutionary nature, the life processes common to all living organisms and the basic principles of genetics and heredity. Fundamental aspects of scientific inquiry are encouraged both in class discussions and related laboratory investigations.

Biology (111)**Grade 9****CPII**

This course involves a basic level exploration of biological principles. Topics of study include the cell, simple biochemistry, genetics, evolution and the life processes common to all living things. It is designed for students who may have difficulty with reading skills and comprehension. Laboratory sessions and hands on activities and projects are coordinated with the topics that are covered.

Honors Chemistry (123)**Grade 10****Honors****Prerequisite: Minimum grade of an 80 in Algebra I or dept. approval.**

This course is meant to provide an in-depth introduction to the field of Chemistry. This course will include an introduction to scientific measurement and calculations, concepts, principles and chemical reactions. Laboratory sessions will be held. These will include an introduction to laboratory procedures and techniques through quantitative experimentation.

Chemistry (122)**Grade 10****CPI****Prerequisite: Minimum grade of a 70 in Algebra I or department approval.**

This course is meant to supply sufficient diversity to meet the needs of the students who are interested in Chemistry-related technological careers. This course will include an introduction to scientific measurement and calculations, concepts, principles and chemical reactions. The course will include both the theoretical and the mathematical approaches to Chemistry, including laboratory procedures and techniques.

Chemistry (121)**Grade 10****CPII****Prerequisite: Department approval/recommendation.**

Involves the exploration of chemical principles on a basic level. The course will include an introduction to scientific measurement and calculations, concepts and chemical reactions. Laboratory exercises will correlate to classroom discussions.

Honors Physics (133)**Grade 11****Honors****Prerequisite: Minimum grade of a 70 in Algebra I and honors Chemistry or by department approval.**

This course is meant to provide an in-depth study of the principles of classical and modern Physics, Newtonian and basic quantum mechanics, light and optics. This course is highly recommended for students with a strong aptitude of science and mathematics. It will provide a sufficient foundation for students interested in careers in science and/or engineering.

Physics (132)**Grade 11****CPI****Prerequisite: Minimum grade of an 80 in Algebra I and Standard Chemistry or by department approval.**

This course is meant to supply sufficient diversity to meet the needs of the students who are interested in science related careers, which may require some background in Physics. This course will provide an introduction to the principles of classical and modern physics, Newtonian and basic quantum mechanics, light and optics. This will be accomplished through classroom discussion and laboratory exercises.

Environmental Science (141)**Grade 11 & 12****CPI**

This course will involve a study of the relationships existing between the living and non-living parts of the environment, including the special place humans have in the relationship. Included is the role technology plays in our society and its capacity to alter chemical, biological and physical processes in nature.

Marine Biology (142)**Grades 11 & 12****CPI**

This is an elective course. Marine Biology is the study of life in the oceans and other saltwater environments such as wetlands and estuaries. This course applies some of the principles taught in the Biology and Earth Sciences courses to the marine environments; the living realm of the oceans. All plant and animal life forms are included from the microscopic phytoplankton all the way to the majestic blue whale. Specific consideration is given to ecological processes and adaptations. Emphasis is placed on the New England area. Labs include field trips as well as hands on activities.

Honors Anatomy and Physiology (144) Grade 12

Honors

Prerequisite: Department approval.

This course will provide the student with a comprehensive study of the structure and function of the major systems of the human body as well as an introduction to the terminology necessary for a thorough understanding of each system.

Laboratory session will include major dissections and

Physiology experiments. This course is strongly recommended for students interested in pursuing a career in the health field.

AP Biology (145)

Grade 12

AP

Prerequisite: Department approval

This college level course is designed to provide students with awareness and increased understanding of complex biochemical and biological principles. Three general areas are dealt with in detail: Molecules & Cells; Heredity & Evolution; and Organisms & Populations. Laboratory exercises are a demanding aspect of this course. The course prepares students to take the Advanced Placement exam in Biology. **All STUDENTS TAKING THIS COURSE WILL TAKE THE A.P. EXAM.**