

# Science Electives

COURSE NAME	GRADE	DESCRIPTION
<b>Physical Science</b>	9 (10-12 w/ permission)	<b>Physical Science</b> is a freshmen-level science class that covers a semester of introductory chemistry and a semester of introductory physics. This class can be taken (with permission) by students in grade 10-12, but only as a recovery class for students who fail a previous science class. Students who want to take Physical Science in grade 10-12 must have permission from their current science teacher and counselor.
<b>Global/Environmental Science</b>	10-12	<b>Global/Environmental Science</b> examines the mutual relationships between organisms and their environment with emphasis on the interrelationships among plants, animals, humans, and the environment. It is a study of how individuals and societies utilize resources and the influence in their attempts to satisfy human wants.
<b>Botany</b>	10-12	<b>Botany</b> is the area of science where we study plants. The only prerequisite is that you have passed Biology. In this class, we study the roles of plants within ecosystems, agriculture (growing crops) and the food system, how plants grow and reproduce, how they are used as medicine and the evolutionary history of plants. Throughout the course we will also work to understand how we as individuals, our health, and our communities are dependent on healthy plant communities.
<b>Zoology</b>	10-12	<b>Zoology</b> is the study of the Kingdom Animalia. Prerequisite: Pass Biology. In this class we learn the major phyla: Porifera, Cnidaria, Platyhelminthes, Nematoda, Annelida, Mollusca, Echinodermata, Arthropoda, and Chordata. Animals we dissect may include but are not limited to the following: planarians, squid, grasshoppers, crayfish, perch, mink. Students are expected to actively participate in the dissections. We will learn vocabulary as it is related to animal structures and functions. Safety contract is required.
<b>Chemistry 1</b>	10-12	<b>Chemistry</b> is the study of matter and its interactions. Students will work with chemicals in labs and learn how to use the Periodic Table. Skills in measuring, pattern recognition and dimensional analysis will help you in understanding chemistry, in future classes and in life.
<b>Honors Chemistry 1</b>	10-12	<b>Honors Chemistry</b> is the study of matter and its interactions. Students will work with chemicals in labs and learn how to use the Periodic Table. Skills in measuring, pattern recognition and dimensional analysis will help you in understanding chemistry. Honors Chemistry explores each topic in more detail and will cover more chemistry concepts than Chemistry 1.
<b>Earth/Space Science</b>	11-12	<b>Earth/Space Science</b> is a new class for JUNIORS and SENIORS ONLY. You'll learn about astronomy, geography, meteorology and oceanography. The class is project-based and

		requires students to learn about the challenges facing the future of our planet and possible solutions.
<b>Anatomy &amp; Physiology OR Human Body Structures &amp; Functions</b>	11-12	<b>Anatomy and Physiology</b> is a Junior and Senior level course. Prerequisite: Pass Biology. We study the following topics and human body systems: orientation of the body, tissues, digestive system, integumentary system, skeletal system, muscular system, circulatory, respiratory, nervous, excretory/urinary, lymphatic, endocrine system and reproductive system. We dissect fetal pigs, pig hearts, cats and sheep to remove the brain. Students enrolled in this course are expected to participate in the dissections. We will learn a lot of anatomical terminology. This is a helpful course for EMT students or for students interested in the medical field. This course is NOT dual credit. Safety contract is required. <b>Human Body Structures &amp; Functions</b> is slower paced and less rigorous course. We study the following topics and human body systems: orientation of the body, tissues, digestive system, integumentary system, skeletal system, muscular system, circulatory, respiratory, nervous, excretory/urinary, and reproductive system. We dissect fetal pigs, pig hearts, cats and sheep to remove the brain. Students enrolled in this course are expected to participate in the dissections. We will learn a lot of anatomical terminology. This is a helpful course for EMT students or for students interested in the medical field. This course is NOT dual credit. Safety contract is required.
<b>Physics</b>	11-12	<b>Physics</b> combines science with math to study linear, projectile and circular motion, forces, energy and waves. We do lots of hands-on labs and experiments and compete in an Egg Drop competition. Students should be at or above grade level in their math class to take Physics.
<b>Forensic Science 1</b>	11-12	<b>Forensic science 1</b> is about using science to solve crime. It helps improve your ability to observe, interpret and report findings clearly like a CSI. You will learn how to collect and analyze evidence with exciting hands-on labs about Fingerprints, human remains, blood spatter, Drugs, Alcohol, DNA, Ballistics, counterfeit currency, and trace evidence. You will set up and investigate mock crime scenes and learn to apply your knowledge to real-life scenarios. You should have passed Biology & Chemistry to take this course!
<b>Forensic Science 2</b>	12	<b>Forensic Science 2</b> is an advanced course for students who are motivated by their successful lab experiences. You will learn about interrogation & Problem-solving techniques, Fire & arson investigations, explosions, conduct autopsies & look at body systems & identify physical trauma. You also learn advanced techniques of processing digital evidence and dealing with internet safety & cybercrime. You should have passed Forensic Science 1 to take this course!
<b>AP Biology</b>	11-12	<b>AP Biology</b> is a college-level Biology course available to students at the High School level. AP Biology focuses on learning the theory behind the hands-on labs done in class. Students need to have successfully completed General / Honors Biology as well as General / Honors

		Chemistry to successfully take and understand AP Biology. Students can earn college credit by scoring a 4 or 5 on the AP Biology exam given at the end of the year.
<b>AP Chemistry</b>	11-12	<b>AP Chemistry</b> is a college-level chemistry class that students take in high school. We do lots of hands-on labs and experiments. Students should have completed General Chemistry or Honors Chemistry to take AP Chemistry. Students can earn college credit by scoring a 4 or 5 on the AP Chemistry exam given at the end of the year.
<b>AP Environmental Science</b>	11-12	<b>AP Environmental Science</b> is designed to be the equivalent of a one semester, introductory college course in environmental science. The content of the course and examinations will follow the guidelines of the College Entrance examination Board. The score earned on Advanced Placement exams will have no bearing on the grade earned in an Advanced Placement class. This course examines the mutual relationships between organisms and their environment with emphasis on the interrelationships among plants, animals, humans, and the environment. It is a study of how individuals and societies utilize resources and the influence in their attempts to satisfy human wants.
<b>AP Physics 1</b>	11-12	<b>AP Physics 1</b> is a college-level Physics class that students take in high school. AP Physics 1 combines science with math to study linear, projectile and circular motion, forces, energy and waves. We do lots of hands-on labs and experiments and compete in an Egg Drop competition. Students should be at or above grade level in their math class to take AP Physics 1. Students can earn college credit by scoring a 4 or 5 on the AP Physics exam given at the end of the year.