

SCIENCE

Course Title	Course #	Credit	Level	Prerequisite	NCAA
EARTH ENVIRONMENTAL SCIENCE	80325 S1	0.5	9	None	Yes
EARTH ENVIRONMENTAL SCIENCE	80325 S2	0.5	9	EES S1	Yes
Goggles required. Lab Fee: \$10.00	Earth Environmental Science is a course where students will master essential learnings related to earth, atmosphere, and oceans. Important science ideas, such as cycles, systems, and energy flow will be applied to the study of topics including geology, weather, astronomy, and natural resources. The relationship between these earth systems and living systems will be explored so that students will be able to make informed decisions regarding the use and care of the resources the earth provides. <i>Meets Graduation Requirements in: Science</i>				
BIOLOGY	80350 S1	0.5	9-10	See Below	Yes
BIOLOGY	80350 S2	0.5	9-10	Biology S1	Yes
Goggles required. Lab Fee: \$10.00	Prerequisite: 9th grader taking this course must have taken or be co-enrolled in Algebra I. A 10th grader must have passed 9th grade Science. Biology is the study of living organisms, their life processes and their relationship with the environment. Students develop an understanding of the process of biology through science inquiry. Topics studied may include, but are not limited to: nature of science, cell, bioenergetics, homeostasis, biodiversity, genetics and evolution, and ecology. <i>Meets Graduation Requirements in: Science</i>				
CHEM COM-CHEMISTRY IN THE COMMUNITY	80460 S1	0.5	10-12	See Below	Yes
CHEM COM-CHEMISTRY IN THE COMMUNITY	80460 S2	0.5	10-12	Chem Con S1	Yes
Goggles required. Lab Fee: \$10.00	Prerequisite: Biology and co-enrolled in Algebra II. This course is designed to provide students with an understanding and appreciation of chemistry and its daily impact on the community. Students will recognize the importance of chemistry in their lives and develop the ability to make decisions about scientific and technological issues. This course is taken as an alternative or precursor to regular chemistry at the recommendation of the teacher. <i>Meets Graduation Requirements in: Science</i>				
CHEMISTRY	80375 S1	0.5	10-12	See Below	Yes
CHEMISTRY	80375 S2	0.5	10-12	Chemistry S1	Yes
Goggles required. Lab Fee: \$10.00	Prerequisite: Grade of C or higher in Algebra II, currently enrolled in math higher than Algebra I, passed 9th Grade Science or Biology. Chemistry covers the broad concepts upon which modern chemistry rests including the mathematics of science, atomic structure, naming and writing formulas, chemical reactions, stoichiometry, gasses, periodicity, bonding, kinetics and equilibrium, solutions and concentrations, acids and bases, with possible enrichment in: redox, thermochemistry, nuclear chemistry, and organic chemistry/biochemistry. Laboratory work is an essential part of the course requiring extensive data analysis. <i>Meets Graduation Requirements in: Science</i>				
PHYSICS	80430 S1	0.5	11-12	See Below	Yes
PHYSICS	80430 S2	0.5	11-12	See Below	Yes
Goggles required. Lab Fee: \$10.00	Prerequisites: Algebra II and Physical Science. In this lab-based course students will study the structure and behavior of the physical world and how these ideas relate to human society. Students will study physical principles of dynamics, light, electricity, magnetism, and atomic structure. The emphasis of this course will be on understanding the mathematical relationships that characterize the behavior of the physical world. <i>Meets Graduation Requirements in: Science</i>				

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AQUATIC BIOLOGY	80475	0.5	11-12	See Below	Yes
Goggles required. Lab Fee: \$10.00	Prerequisite: Successful completion of Biology and teacher recommendation. Aquatic Biology is a course designed to acquaint students with the biology and ecology of freshwater and/or marine environments. The course is designed for the student who has a general interest in science. Students will study the ecological importance and interrelations of aquatic organisms. <i>Meets Graduation Requirements in: Science/Elective</i>				
ZOOLOGY	80500	0.5	11-12	Biology	Yes
Goggles required. Lab Fee: \$10.00	Zoology is a course designed to present the student with representatives of all the major animal groups, their comparative anatomy, evolutionary origins and record, ecology, and behavior. It is primarily lab-oriented with dissections. <i>Meets Graduation Requirements in: Science/Elective</i>				
HUMAN ANATOMY & PHYSIOLOGY	80525	0.5	11-12	See Below	Yes
Goggles required. Lab Fee: \$10.00	Prerequisite: Minimum of C or higher in Biology. Anatomy and Physiology is an advanced course for students who are interested in exploring human body structures and functions in greater depth. Students will be expected to conduct numerous laboratory investigations. Human health and disease will be emphasized and explored through inquiry. The course is designed for the biology/health care related student, however, the non-biology major will benefit as well. <i>Meets Graduation Requirements in: Science/Elective</i>				
GEOLOGY	80575	0.5	11-12	Biology	Yes
Lab Fee: \$10.00	Geology is the study of the earth, its formation, and the processes that shape it. It is a survey course that includes major topics such as rocks and minerals, plate tectonics, natural resources, and Colorado geology. <i>Meets Graduation Requirements in: Science/Elective</i>				
GLOBAL SCIENCE, Semester 1	80624 S1	0.5	11-12	Teacher Approval	Yes
GLOBAL SCIENCE, Semester 2	80624 S2	0.5	11-12	Global Science, S1	Yes
Goggles required. Lab Fee: \$10.00	Global science is an integrated science course combining life, earth and physical science topics in a lab- based and inquiry-driven environment enriched by basic chemistry and physics principles. Students will apply data collected in laboratory investigations to understand and interpret the scientific and social challenges of the future. <i>Meets Graduation Requirements in: Science/Elective</i> ___ <i>May be taken more than once for credit.</i> <u>X</u> <i>May be taken only once for credit.</i>				
ASTRONOMY	80600 S1	0.5	11-12	See Below	Yes
Goggles required. Lab Fee: \$10.00	Prerequisite: Passing grade of C or higher in Biology and Teacher Approval. This lab-based course includes the study of our place in the universe, motion of celestial objects, planets, moons, stars, galaxies, and cosmology. The study of our solar system draws upon the student's current knowledge of earth science (geology and weather) and chemistry. Much of the course includes problem solving, requiring a strong understanding of basic algebraic concepts. <i>Meets Graduation Requirements in: Science/Elective</i>				
BACTERIOLOGY & GENETICS	80555	0.5	11-12	See Below	Yes
Goggles required. Lab Fee: \$10.00	Prerequisite: Passing grade of C or higher in Biology and Teacher Approval. This course will focus on genetics in a modern context, examining how our knowledge of DNA and genes has guided our understanding of the living world. Students will do extensive work in problem solving using inquiry-based laboratory, research, and computer-based projects. Topics to be covered will include: 1) chemical and physical basis of heredity 2) Mendelian and non-Mendelian patterns of inheritance 3) human genetics 4) biotechnology and 5) legal and ethical issues in modern genetics. <i>Meets Graduation Requirements in: Science/Elective</i>				

ADVANCED PLACEMENT COURSES

Course Title	Course #	Credit	Level	Prerequisite	NCAA
AP BIOLOGY, Semester 1	80365 S1	0.5	11-12	See Below	Yes
AP BIOLOGY, Semester 2	80365 S2	0.5	11-12	AP Biology S1	Yes
AP Exam: \$86.00 Goggles required. Lab Fee: \$10.00	Prerequisite: Successful completion of Algebra II, Biology and Chemistry. Concepts studied include; biochemistry, cells, heredity, molecular genetics, evolutionary biology, biodiversity, and ecology. Laboratory activities are an important aspect of the course. Students will be expected to take the AP Biology exam. <i>Meets Graduation Requirements in: Science.</i>				
AP CHEMISTRY, Semester 1	80400 S1	0.5	11-12	See Below	Yes
AP CHEMISTRY, Semester 2	80400 S2	0.5	11-12	AP Chem S1	Yes
AP Exam: \$86.00 Goggles required. Lab Fee: \$10.00	Prerequisite: Successful completion of Algebra II, Biology and Chemistry. Topics covered in this course include; types of matter, reaction types, equilibrium, kinetics, and thermodynamics. Lab work is a large part of the class. Students will be expected to take the AP Chemistry exam. <i>Meets Graduation Requirements in: Science.</i>				
AP ENVIRONMENTAL SCIENCE	80370 S1	0.5	11-12	See Below	Yes
AP ENVIRONMENTAL SCIENCE	80370 S2	0.5	11-12	AP Env S1	Yes
AP Exam: \$86.00 Goggles required. Lab Fee: \$10.00	Prerequisite: Successful completion of one year of life science, one year of physical science, Chemistry or currently enrolled in Chemistry or ChemCom, and a minimum of Algebra I. This course will provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. Student will be expected to take the AP Environmental Science Exam. <i>Meets Graduation Requirements in: Science.</i>				
AP PHYSICS C	80655 S1	0.5	11-12	See Below	Yes
AP PHYSICS C	80655 S2	0.5	11-12	AP Phys S1	Yes
AP Exam: \$86.00 Goggles required. Lab Fee: \$10.00	Prerequisite: Successful completion of Chemistry and Calculus or concurrent enrollment in Calculus. It is highly recommended that students purchase a TI-83 (or newer) graphing calculator. Topics include the motion of particles, forces, work, energy, collisions, rotation, rolling, torque, angular momentum, gravitation, and oscillations. Calculus will be used extensively. Student will be expected to take the AP Physics C Exam. <i>Meets Graduation Requirements in: Science.</i>				