

Science

Graduation Requirement: 4 Credits

1 credit must be Biology; 1 credit must be Physical Science OR Physics; 1 credit must be Chemistry, Earth Systems, Environmental Science or an AP course.

9th Grade		10th Grade	11th Grade	12th Grade
Honors Biology	> 85° H Bio <u>AND</u> 85 in Algebra or 80° H Algebra	→ Honors Chemistry →	Environmental Sci., Earth Systems, Chemistry, H Chemistry, Physics AP Physics 1, AP Chemistry, AP Biology, AP Environ. Sci.	Science Selection** Physics, Anatomy, H Anatomy, Astronomy, Env. Sci., Earth Systems, AP Physics 1 or 2, AP Chemistry, AP Biology, AP Env. Sci. **Based on prerequisites with unweighted grades
Biology	95 Bio <u>AND</u> 85 in Algebra or 80° H Algebra	→ Honors Chemistry →	Physics, AP Physics 1, AP Chemistry, AP Biology, AP Env. Sci.	
Honors Biology	>80° H Bio <u>AND</u> 85 in Algebra or 80° H Algebra	→ Chemistry →	Physics	
Biology	85 Bio <u>AND</u> 85 in Algebra or 80° H Algebra			
Biology	70° or higher in Bio or H Bio	→ Physical Science →	Science Selection Environmental Science, Earth Systems, Chemistry	

Course	Course Number	Term	Grade (s)	Prerequisite (s)	Course Description
Biology	26.0120001 fall 26.0120002 spring	Y	9	None	Students will investigate patterns, processes, and relationships of living organisms including the interdependence of organisms, the relationship of matter, energy, and organization in living systems, the behavior of organisms, and biological evolution. Students will investigate biological concepts through experiences in laboratories and field work using the process of inquiry.

Course	Course Number	Term	Grade (s)	Prerequisite (s)	Course Description
Honors Biology	26.0120041 fall	Y	9-10	> 88 in High School Physical Science in 8th grade OR > 95 in 8th grade on level science	Student will investigate patterns, processes, and relationships of living organisms including the interdependence of organisms, the relationship of matter, energy, and organization in living systems, the behavior of organisms, and biological evolution. Students will investigate biological concepts through experiences in laboratories and field work using the process of inquiry
	26.0120042 spring				
Env. Science	26.0611001 fall	Y	9-12	None	Students will investigate connections among Earth's systems (atmosphere, hydrosphere, and geosphere); the Earth's landscapes, ecology, and resources; phenomena fundamental to geology and physical geography (including the early history of Earth, plate tectonics, landform evolution, the Earth's geologic record, weather and climate, and history of life on Earth).
	26.0611002 spring				
Physical Science	40.0110001 fall	Y	10-12	Biology	Students will survey of the core ideas in the physical sciences including the structure of atoms, properties of materials, radioactive decay, motion and forces, the conservation of energy and matter, wave behavior, electricity, and the relationship between electricity and magnetism. Students will investigate physical science concepts through experiences in laboratories and field work using the process of inquiry. This class is not appropriate for students who have completed Chemistry.
	40.0110002 spring				
Earth Systems	40.0640001 fall	Y	10-12	None	Students investigate connections among Earth's systems (atmosphere, hydrosphere, and geosphere); the Earth's landscapes, ecology, and resources; phenomena fundamental to geology and physical geography (including the early history of Earth, plate tectonics, landform evolution, the Earth's geologic record, weather and climate, and history of life on Earth).
	40.0640002 spring				

Course	Course Number	Term	Grade (s)	Prerequisite (s)	Course Description
Chemistry	40.0510001 fall	Y	10-12	> 85 in Bio and/or > 80 in Physical Science AND > 85 Advanced Algebra C&C or Geometry C&C & > 80 in Algebra C&C	Students will investigate chemistry concepts through experiences in laboratories and field work using the process of inquiry: structure of atoms, structure and properties of matter, the conservation and interaction of energy and matter, and the use of Kinetic Molecular Theory to model atomic and molecular motion in chemical and physical processes.
	40.0510002 spring				
Honors Chemistry	40.0510041 fall	Y	10-12	> 85 in Bio and/or > 80 in Physical Science AND > 85 in Advanced Algebra C&C or Geometry C&C & > 80 in Algebra C&C	Students will investigate chemistry concepts through experiences in laboratories and field work using the process of inquiry: structure of atoms, structure and properties of matter, the conservation and interaction of energy and matter, and the use of Kinetic Molecular Theory to model atomic and molecular motion in chemical and physical processes.
	40.0510042 spring				
Physics	40.0810001 fall	Y	11-12	Pre/co req: Advanced Algebra C&C	Students will investigate nuclear decay processes, interactions of matter and energy, velocity, acceleration, force, energy, momentum, properties and interactions of matter, electromagnetic and mechanical waves, and electricity, magnetism and their interactions. Students will investigate physics concepts through experiences in laboratories and field work using the process of inquiry.
	40.0810002 spring				
Human Anatomy	26.0730001 fall	Y	11-12	> 80 or in Bio AND in Physical Science or Chemistry	In this course students process and develop research skills through the investigation of body organization, skeletal system, muscular and nervous systems, endocrine system, reproductive and urinary systems, circulatory and respiratory systems, integumentary digestive system, immune system, and dissection.
	26.0730002 spring				

Course	Course Number	Term	Grade (s)	Prerequisite (s)	Course Description
Honors Human Anatomy	26.0730041 fall 26.0730042 spring	Y	11-12	> 85 in Biol AND in Chem OR > 80 in Honors Bio and Honors Chem (not weighted)	In this course students process and develop research skills through the investigation of body organization, skeletal system, muscular and nervous systems, endocrine system, reproductive and urinary systems, circulatory and respiratory systems, integumentary digestive system, immune system, and dissection.
Astronomy	40.0210001 fall 40.0210002 spring	Y	11-12	Biology and Physical Science	Students will investigate the systems of our environment, human impact on our planet, the flow of energy and cycling of matter within ecosystems, and evaluate types, availability, allocation, and sustainability of energy resources with a focus on student data collection and analysis from field and laboratory experiences.
AP Biology	26.0140001 fall 26.0140002 spring	Y	11-12	> 85 (not weighted) in Honors Bio OR > 95 in Bio AND > 85 (not weighted) in Honors Chem	In this Advanced Placement course, students will further develop an understanding of biology through inquiry-based investigations exploring the topics of evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions.
AP Chemistry	40.0530001 fall 40.0530002 spring	Y	11-12	> 80 (not weighted) in Honors Chem S1 AND enrolling in Pre-Calculus OR teacher rec	In this Advanced Placement course, students will investigate the structure of matter, bonding and intermolecular forces, chemical reactions, kinetics, and thermodynamics and chemical equilibrium through the application of science practices and laboratory investigations.

Course	Course Number	Term	Grade (s)	Prerequisite (s)	Course Description
AP Env. Science	26.0620001 fall	Y	11-12	> 80 in Chem S1 OR > 90 in Physical Science S1 AND enrolling in Adv. Algebra C&C OR teacher rec	In this Advanced Placement course, students investigate ecosystems, human population, major global problems, energy resources, pollution, sustaining biodiversity an ecological integrity, and the environment as it relates to society. This course integrates previous knowledge from biology and chemistry
	26.0620002 spring				
AP Physics 1	40.0831001 fall	Y	11-12	> 90 in Chem S1 OR > 80 in Honors Chem (not weighted) S1 OR > 90 in Physics and Pre/Co Req Pre-Calculus OR teacher rec	AP Physics 1 is an Algebra-based Advanced Placement course that introduces college -level physics units which explores Kinematics, Dynamics with Newtonian Mechanics (rotational dynamics and angular momentum), Conservation of Energy (including work, energy, and power) and Momentum. This college level course uses conceptual understanding and applications of physics in the real world to understand the mechanisms of physics.
	40.0831002 spring				
AP Physics 2	40.0832001 fall 40.0832002 spring	Y	11-12	> 80 or in AP Physics S1	AP Physics 2 is an Algebra-based Advanced Placement course which explores principles of fluids, thermodynamics, electricity, magnetism, optics, and topics in modern physics. The course is based on seven Big Ideas, which encompass core scientific principles, theories and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world.