

**KENNESAW MOUNTAIN
HIGH SCHOOL**



2025-2026

**Core
Course Catalog**

Kennesaw Mountain High School

1898 Kennesaw Due West Rd

Kennesaw, GA 30152

678.594.8190

[Kennesaw Mountain High School \(cobbk12.org\)](http://cobbk12.org)

SCHOOL COUNSELING DEPARTMENT

Counselor Magnet..... Angela LaRoy, Lead Counselor

Counselor A-C..... Brittney Phillips

Counselor D-K..... Colleen Garcia

Counselor L-R..... Katherine Barrington

Counselor S-Z..... Senoria Cain

Registrar..... Heather Placie

A few notes about this course guide:

- Academic classes have been recommended by your teachers after reviewing your grades, test scores and previous classroom performance. It is not the philosophy of the school to place students in classes which the school believes will be discouraging or overwhelming to students. While we do encourage students to challenge themselves with the most rigorous classes they can handle, please be careful if you decide to take a course different than what your teacher recommended.
- As you read the course catalog, please be attentive to the identified **pre-requisites** (required completed courses) for course enrollment. Based on past student performance, departments have carefully considered the skills and levels of readiness required to be successful in each course. **Academic balance is strongly encouraged and recommended for students when selecting core and elective classes.**
- **Please ask questions!** Your counselor is the best person to advise you as to what you need to take to meet your graduation requirements.
- Have a great 2025-2026 school year and, as always.....*Go Mustangs!!*

Grades and Grading Scale

The Cobb County School District has set the following grade scale:

A: 90 – 100

B: 80 – 89

C: 74 – 79

D: 70 – 73

F: 69 and below

Classes meet for one (1) semester that consists of 18 weeks. **Final course grades are awarded at the end of each semester.**

The grade point average (**GPA**) is based on quality points awarded for each grade earned at the completion of the course.**

A: 4 quality points

B: 3 quality points

C: 2 quality points

D: 1 quality point

F: 0 quality points

**Honors courses receive an extra 0.5 quality point. Advanced Placement (AP) courses are awarded an extra 1.0 quality point. No extra quality points are awarded if a student fails the course.

Examples: A student earns an A (grade of 93) in Honors World Geography. The quality point awarded is 3.5 points.
A student earns a B (grade of 88) in AP Human Geography. The quality point awarded is 4 points.

Grade Promotion Requirements

To promote to the 10th grade at the end of the school year, students must earn a minimum of 5 credits. Required credits include passing freshman English, math and science courses. To promote to the 11th grade, a minimum of 10 credits, including two full credits in English, math and science. Promotion to 12th grade requires a minimum of 16 credits.

Graduation Requirements

The Georgia State Board of Education has one common set of high school graduation requirements. Meeting all identified requirements will earn a high school diploma. To meet the credit requirement, students must complete (earn) a minimum of 23 credits as identified below. Students are encouraged to complete a Pathway in CTAE, Fine Arts or World Languages during high school.

Subject	Required Credits	Graduation Requirements
English	4	Must include 9 th Literature/Comp and American Literature
Math	4	Must include Algebra, Geometry and Advanced Algebra or their equivalencies
Science	4	Must include Biology, an Earth Science course, a Physical Science course and 1 additional science course
Social Studies	3	Must include World History, United States History, Government and Economics
Health and PE	1	.5 credit of Health and .5 credit of Personal Fitness
Required Electives	3	Courses from CTAE, Fine Arts and/or World Languages
Additional Electives	4	
Total	23	Minimum required credits

Middle School-High School Academic Credit

Middle school students have the opportunity to earn high school credit in math, science, foreign language and visual art. These courses, while they meet the high school credit requirement, do not count toward the student's high school grade point average but are reflected on the student's high school transcript by the numeric grade earned. It is important for students and parents to understand that once a student has earned high school credit, whether in middle school or in high school, the student cannot retake the same course again.

Athletic Eligibility

All first year freshman are eligible to participate in sports during fall semester. In order to maintain eligibility, and for upperclassmen students, a minimum of 2.5 credits must be earned each semester.

Final Exams

Final exams are administered in each course during the last four days of the semester. If a student is absent for a final exam, the student has 10 school days beginning the first day of the new semester to take the exam. At the time of the final's administration, a grade of zero is recorded until the final exam has been completed. It is the student's responsibility to coordinate make up dates for missed final exams.

Milestone Assessments

Effective the 2020-2021 school year, Milestones (End of Course tests) will be administered in the following courses: Algebra, American Literature, Biology, and United States History (for non-Advanced Placement and Dual Enrollment students). The GaBOE determines the weight of the assessment as part of a student's final course grade.

Pathway Opportunities and Completion

Beginning with the Class of 2017, each student is encouraged to complete either an Advanced Academics, CTAE, Fine Arts, or World Languages pathway.

Advanced Academics: An Advanced Academic Pathway may be followed in any of the following content areas: English, math, science or social studies. Students complete an Advanced Academic Pathway when they have completed the required courses for graduation and one of the courses completed is either Advanced Placement (AP) or Dual Enrollment (DE). Additionally, students must earn credits in two (2) sequential courses in one world language.

CTAE: Students complete a series of three (3) or four (4) specific courses in a CTAE-approved pathway. Complete pathways are offered in the following areas: Architectural Drawing and Design, Carpentry, Business Accounting, Broadcast/Video Production, Graphic Design, Information Support and Services, Web and Digital Design, Computer Science, Engineering Drafting and Design, Culinary Arts, and Sports and Entertainment Marketing.

Fine Arts: Students complete three (3) courses in either Band, Chorus, Orchestra, Visual Arts, or Journalism/Yearbook.

World Language: The World Language Pathway is completed when students complete three (3) courses in the same world language. Students must maintain a 3.0 average in Spanish I, II, III, and IV or French I, II and II or American Sign Language I, II, III.

AP LANGUAGE & COMPOSITION Y	<p>This course focuses on the study of American literature, embracing its rhetorical nature and recognizing the literature as a platform for argument. It also emphasizes a variety of writing modes and genres and the essential conventions of reading, writing, and speaking. The students will develop an understanding of how historical context in American literature affects its structure, meaning, and rhetorical stance. The course will enable students to become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts. The students will encounter a variety of informational, literary, and non-print texts including visuals and graphic images as texts from across the curriculum and read texts in all genres and modes of discourse. The students will compose a variety of writing, including expository, analytical, and argumentative writings. Students will analyze primary and secondary sources and develop the research skills needed to effectively synthesize these sources for their writing. Students enrolled in this course are prepared to take the Advanced Placement exam. There are required summer readings and assignments.</p>	<p>Teacher Recommendation Ninth Literature and Composition Honors Y or Ninth Literature and Composition Y and Honors World Literature</p>	<p>11</p>
ENGLISH IV Y	<p>This course is designed for the college-bound student who wishes to refine his writing skills in order to prepare himself for the level of writing expected in most college courses, regardless of discipline. It provides review and further exploration of the writing process, including planning, drafting, and revising, and emphasizes research skills and various elements of essay composition. The course focuses on argument, informative/explanatory, and narrative writing as well as style, voice, and grammatical structure, including mechanics and usage.</p>	<p>Teacher Recommendation Ninth Literature and Composition Y Tenth grade English credit American Literature Y</p>	<p>12</p>
HONORS ENGLISH IV Y	<p>This course is designed for the college-bound student who wishes to refine his writing skills in order to prepare himself for the level of writing expected in most college courses, regardless of discipline. It provides review and further exploration of the writing process, including planning, drafting, and revising, and emphasizes research skills and various elements of essay composition. The course focuses on argument, informative/explanatory, and narrative writing as well as style, voice, and grammatical structure, including mechanics and usage.</p>	<p>Teacher Recommendation Ninth Literature and Composition Y Tenth grade English credit American Literature Y</p>	<p>12</p>
DRAMATIC WRITING Y (Honors Advanced Composition embedded credit)	<p>Applies skills to culminate in creating and developing dramatic writing for theatrical media with special emphasis on film and television. Includes the development of “writerly stance” by reading, viewing, and analyzing texts and visual media from a writer’s point of view, with focus on understanding the construction process and including the application of conventions of standard English grammar and usage. <i>This course meets the fourth English Language Arts core requirement with Honors Advanced Composition as an embedded credit.</i></p>	<p>Teacher Recommendation Ninth Literature and Composition Y Tenth grade English credit American Literature Y</p>	<p>12</p>
AP LITERATURE Y	<p>This college-level course focuses on the reading and analysis of literary works and the writing of critical essays. This course is designed as an accelerated and enriching experience in analytical and critical thinking. It also pre-supposes that a student is proficient in composition. This course is geared to the student who aspires to take the AP exam. Parallel readings will include specific readings assigned during the term and required summer readings.</p>	<p>Teacher Recommendation AP Language with American Literature is recommended</p>	<p>12</p>

English Electives

Course Name	Course Description	Pre-requisites	Grade
JOURNALISM/ANNUAL Y	This course explores writing through the analysis of yearbooks. It concentrates on the purpose, influence and structure, and language use. It also covers news gathering, ethics, copyrighting, editing and revising. The course includes desktop publishing, circulation and production as minor aspects.	Application required Teacher Recommendation	10-12
SPEECH AND DEBATE Y (Oral Written Communication)	This course focuses on developing public speaking skills. The students will identify effective methods to arrange ideas and information in written form and then convert the written form into an effective oral delivery. The course focuses on critically thinking, organizing ideas, researching counter viewpoints, and communicating appropriately for different audiences and purposes. The students analyze professional speeches to enhance their knowledge of solid speech writing.	Earned credit in two (2) high school level English classes	11-12

Math

Course Title	Course Description	Course Pre-requisites	Grade
FOUNDATIONS OF ALGEBRA Y	This year-long course will provide many opportunities to revisit and expand the understanding of foundational algebra concepts, will employ diagnostic means to offer focused interventions, and will incorporate varied instructional strategies to prepare students for required high school mathematics courses Fall semester in this course. Foundations of Algebra will emphasize both algebra and numeracy in a variety of contexts including number sense, proportional reasoning, quantitative reasoning with functions, and solving equations and inequalities. <i>Spring semester students continue their study by taking Algebra Concepts & Connections Y which is the first course in a sequence of three required high school courses designed to ensure career and college readiness.</i> The course represents a discrete study of algebra with correlated statistics applications	8 th Grade Math Course Grade SMI scores Teacher Recommendation	9
ALGEBRA CONCEPTS & CONNECTIONS Y Milestone Course	Algebra: Concepts and Connections is the first course in a sequence of three high school courses designed to ensure career and college readiness. Students will apply their algebraic and geometric reasoning skills to make sense of problems involving algebra, geometry, bivariate data, and statistics. This course focuses on algebraic, quantitative, geometric, graphical, and statistical reasoning. In this course, students will continue to enhance their algebraic reasoning skills when analyzing and applying a deep understanding of linear functions, sums and products of rational and irrational numbers, systems of linear inequalities, distance, midpoint, slope, area, perimeter, nonlinear equations and functions, quadratic expressions, equations and functions, exponential expressions, equations, and functions, and statistical reasoning.	8 th Grade Math	9
HONORS ALGEBRA Y Milestone Course	This course includes the same topics of study included in GSE Algebra but places more emphasis on formal processes and rigor. This course will place more emphasis on critical thinking and analysis of mathematical concepts. Students will take the state Georgia Milestones EOC at the end of the course.	Advanced 8 th Grade Math Teacher Recommendation	9
GEOMETRY CONCEPTS & CONNECTIONS Y	This is the second in a sequence of courses designed to provide students with preparation for more rigorous Mathematics courses in high school. The course represents a discrete study of geometry with correlated statistics applications, including transformations, similarity, congruence, fundamentals of proof, right triangle trigonometry, properties of circles, algebraic connections with geometry, and probability.	Algebra Y	9-10
GEOMETRY W/SUPPORT Y	Geometry: Concepts and Connections is the second course in a sequence of three high school courses designed to ensure career and college readiness. This course is intended to enhance students' geometric, algebraic, graphical, and probabilistic reasoning skills. Students will apply their algebraic and geometric reasoning skills to make sense of problems involving geometry, trigonometry, algebra, probability, and statistics. Students will continue to enhance their analytical geometry and reasoning skills when analyzing and applying a deep understanding of polynomial expressions, proofs, constructions, rigid motions and transformations, similarity, congruence, circles, right triangle trigonometry, geometric measurement, and conditional probability. The Support course is designed to be used as a co-requisite support course for Geometry: Concepts and Connections to support student learning in the core mathematics course. This course is awarded elective mathematics credit.	Teacher Recommendation Algebra Y	9-10

HONORS GEOMETRY Y	This is the second in a sequence of courses designed to provide students with preparation for more rigorous Mathematics courses in high school. The course represents a discrete study of geometry with correlated statistics applications, including transformations, similarity, congruence, fundamentals of proof, right triangle trigonometry, properties of circles, algebraic connections with geometry, and probability. The honors course will include greater depth in problem solving, rigorous reasoning, and proof.	Teacher Recommendation Algebra Y or Honors Algebra Y	9-10
ADVANCED ALGEBRA Y	Advanced Algebra: Concepts & Connections is the third course in a sequence of courses designed to ensure career and college readiness. It is intended to prepare students for fourth mathematics course options relevant to their postsecondary pursuits. High school course content standards are listed by big idea, including Data and Statistical Reasoning, Probabilistic Reasoning, Functional and Graphical Reasoning, Patterning and Algebraic Reasoning, and Geometric and Spatial Reasoning.	Algebra Y Geometry Y	10-11
ADVANCED ALGEBRA W/SUPPORT Y	Advanced Algebra: Concepts & Connections is the third course in a sequence of courses designed to ensure career and college readiness. It is intended to prepare students for fourth mathematics course options relevant to their postsecondary pursuits. High school course content standards are listed by big idea, including Data and Statistical Reasoning, Probabilistic Reasoning, Functional and Graphical Reasoning, Patterning and Algebraic Reasoning, and Geometric and Spatial Reasoning. The Support course is designed to be used as a co-requisite support course for Advanced Algebra Concepts and Connections to support student learning in the core mathematics course. This course is awarded elective mathematics credit.	Teacher Recommendation Algebra Y Geometry Y	11-12
HONORS ADVANCED ALGEBRA Y	Advanced Algebra: Concepts & Connections is the third course in a sequence of courses designed to ensure career and college readiness. It is intended to prepare students for fourth mathematics course options relevant to their postsecondary pursuits. High school course content standards are listed by big idea, including Data and Statistical Reasoning, Probabilistic Reasoning, Functional and Graphical Reasoning, Patterning and Algebraic Reasoning, and Geometric and Spatial Reasoning. This course includes the study of the Algebra but with more depth and rigor with emphasis on critical thinking and analysis of mathematical concepts.	Teacher Recommendation Geometry Y or Honors Geometry Y	10-11
PRE-CALCULUS Y	GSE Pre-Calculus is a fourth Mathematics course to prepare students for calculus and other college level Mathematics courses. Students will study the Unit Circle, writing and graphing trigonometric functions, solving trigonometric equations and identities, inverse trigonometric functions, applications of trigonometry to general triangles, conic sections, vectors, matrices, and the use of probability to make informed decisions.	Teacher Recommendation Advanced Algebra Y	10-12
AP PRE-CALCULUS Y	This course conforms to the Georgia K-12 Mathematics Standards of Pre-calculus and/or College Board's AP Pre-calculus. It places more emphasis on formal processes and rigor. This course will place more emphasis on critical thinking and analysis of mathematical concepts. Students that successfully complete this course are prepared to take AP Calculus AB.	Teacher Recommendation Honors Advanced Algebra Y	10-11
CALCULUS Y	Calculus is a fourth-year mathematics course option for students who have completed Precalculus or the Enhanced Advanced Algebra Concepts and Connections and Precalculus course. The course provides students with the opportunity to develop an understanding of the derivative and its applications as well as the integral and its applications. Throughout the course there should be a	Advanced Algebra Y	11-12

	focus on notational fluency and the use of multiple representations.		
AP CALCULUS AB Y	This course conforms to the Advanced Placement Program of the College Board and includes algebraic relations, limits, derivatives of algebraic and transcendental functions, and applications of derivatives. This course also includes basic integrations, applications of integrations, transcendental functions, methods of integration, and linear first-order differential equations. A typical equivalent would be a college Calculus I class.	Teacher Recommendation AP Pre-Calculus Y or Calculus Y	11-12
AP CALCULUS BC Y	This course conforms to the Advanced Placement Program of the College Board and continues the study of AP Calculus AB course. Topics include the differential and integral calculus skills and concepts from AP Calculus AB and extends them to include parametric, polar, and vector functions, along with an introduction to the study of functions represented as infinite sequences and series. A typical equivalent would be a college Calculus I and Calculus II class.	Teacher Recommendation AP Calculus AB Y	11-12
STATISTICAL REASONING Y	The Statistical Reasoning course offers students opportunities to strengthen their understanding of the statistical method of inquiry and statistical simulations. Students will formulate statistical investigative questions to be answered using data, will design and implement a plan to collect the appropriate data, will select appropriate graphical and numerical methods for data analysis, and will interpret their results to make connections with the initial question. The Mathematical Modeling and Statistical Reasoning Frameworks will provide the foundation for instruction and assessment. Topics should be introduced and assessed using simulations and appropriate supporting technology.	Teacher Recommendation Advanced Algebra Y	12
AP STATISTICS Y	This course conforms to Advanced Placement Program of College Board and introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns and statistical inference.	Teacher Recommendation Honors Advanced Algebra II or Pre-Calculus Y or AP Pre-calculus Y	10-12
ADVANCED FINANCIAL ALGEBRA Y	Advanced Financial Algebra is a fourth-year mathematics course option designed to follow the completion of Advanced Algebra: Concepts and Connections. Students will enhance their understanding of algebra, statistics, and research design while introducing students to relevant financial and business applications. Students will create, apply, and interpret a wide variety of algebraic function-models to aid in the real-world decision making.	Advanced Algebra Y	12
MULTIVARIABLE CALCULUS Y	Multivariable Calculus is a fourth-year mathematics course option for students who have completed AP Calculus BC. It includes three-dimensional coordinate geometry; matrices and determinants; eigenvalues and eigenvectors of matrices; limits and continuity of functions with two independent variables; partial differentiation; multiple integration; the gradient; the divergence; the curl; Theorems of Green, Stokes, and Gauss; line integrals; integrals independent of path.	Teacher Recommendation and AP Calculus BC Y	12
DIFFERENTIAL EQUATIONS Y	Differential Equations is a course option for students who have completed Advanced Placement (AP) Calculus BC. The course introduces ordinary differential equations. Topics include the solution of first, second, and higher order differential equations, systems of differential equations, series solutions and Laplace transforms. There will be a strong focus on the presentation of mathematical ideas through both written and oral communication. The goal is to give students the skills and techniques they will need as they study advanced mathematics at the college level.	Teacher Recommendation Multivariable Calculus Y	12

Social Studies

Course Title	Course Description	Course Pre-requisites	Grade
WORLD GEOGRAPHY Y	This course uses a thematic approach to the study of the geographic (physical and cultural), religious, historical, economic and political developments throughout the world. Content studied is supported by the use of current events to further curricular understanding. Study skills such as writing, note-taking, critical thinking, test taking strategies developed during this course will prepare students for high school social studies courses and other curriculums as well.	None	9
HONORS WORLD GEOGRAPHY Y	This course uses a thematic approach to the geographic (physical and cultural), religious, historic, economic, and political developments throughout the world. Content studied is supported by the use of current events to further curricular understanding. Study skills such as writing, note-taking, critical thinking, test taking strategies developed during this course will prepare students for high school social studies courses and other curriculums as well.	Teacher Recommendation	9
AP HUMAN GEOGRAPHY Y	Advanced Placement Human Geography is the equivalent of a one-semester college-level course and is designed to provide the student with an in-depth understanding of the earth's regions, religions, languages, recent regional histories, governments, economic systems, and physical features. Students will write frequently on current topics of interest. The free response questions will be patterned after the type of questions asked on the AP Human Geography Exam. Outside reading and writing are required. This course has a required summer assignment.	Teacher Recommendation	9
WORLD HISTORY Y	A survey of people and nations of both Western and non-Western civilizations. This course explores the political, cultural, and economic heritage of civilization from the time of recorded history through the Industrial Revolution (5000 B.C.-1800's) and from the rise of nationalism to contemporary times (1800's-present). Concepts and skills in problem solving and critical thinking are developed along with writing skills	None	10-12
HONORS WORLD HISTORY Y	A survey of people and nations of both Western and non-Western civilizations. This course explores the political, cultural, and economic heritage of civilization from the time of recorded history through the Industrial Revolution (5000 B.C.-1800's) and from the rise of nationalism to contemporary times (1800's-present). Critical thinking and problem solving are stressed. Extensive reading and writing are required.	Teacher Recommendation Honors World Geography Y or World Geography Y	10-12
AP WORLD HISTORY Y	The purpose of the AP World History course is to develop greater understanding of the changes of global processes and contacts, in interaction with different types of human societies. This course offers balanced global coverage with Africa, the Americas, Asia, and Europe. This course emphasizes relevant factual knowledge deployed in conjunction with leading interpretive issues and types of historical evidence.	Teacher Recommendation Honors World Geography Y	10
US HISTORY Y Milestone course	This course is a survey of the development of the U.S. from discovery to the present. The intent of this course is to increase knowledge, awareness, and appreciation of America's social, political and economic evolution during the formative years.	None	11-12
HONORS US HISTORY Y Milestone course	This course is a survey of the development of the US from discovery to the present. The purpose of this course is to increase knowledge, awareness, and appreciation of America's social, political, and economic evolution during the formative years. Inquiry and analysis of historical situations are emphasized.	Teacher Recommendation AP World History Y or Honors World History Y	11-12

AP U.S. HISTORY Y	This course is designed to give students a thorough understanding of United States history from its discovery to the present, requiring students to master historical and analytical skills, including; chronological and spatial thinking, historical research, and historical interpretation. This course is equivalent to a full-year introductory college class. There is a required summer assignment.	Teacher Recommendation AP World History Y or Honors World History Y	11
AMERICAN GOVERNMENT Y (quarter course)	This course is a study of the local, state, and federal governmental functions. Citizenship rights and responsibilities are emphasized. Focus areas include development of our political systems, federalism, civil liberties, political parties, political theory and comparative government. Also, the functions of the Executive, Legislative, and Judicial branches of government will be studied.	United States History Y	12
HONORS AMERICAN GOVERNMENT Y	This course is a study of the local, state, and federal governmental functions. Citizenship rights and responsibilities are emphasized. Focus areas include development of our political systems, federalism, civil liberties, political parties, political theory and comparative government. Also, the functions of the Executive, Legislative, and Judicial branches of government will be studied.	Teacher Recommendation Honors United States History Y or AP United States History Y	12
AP GOVERNMENT AND POLITICS U.S. Y	Designed to give students a critical perspective on government and politics in the United States. This course involves both the study of general concepts used to interpret politics in the United States and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that make up the American political reality. AP Government and Politics is a cooperative educational endeavor of the College Entrance Examination Board. This course meets the requirement for graduation and is a year-long course.	Teacher Recommendation AP US History Y or Honors US History Y	12
PRINCIPLES OF ECONOMICS Y (quarter course)	This course is a study of fundamental concepts and essential elements of the market economic system in a problem/issues orientation. Focus areas include opportunity costs and scarcity, supply/demand analysis, competitive markets, macroeconomics measurement, business cycles, inflation, unemployment, monetary and fiscal policies, and international trade. <i>Students receive embedded course credit for Personal Financial Literacy by completing additional assignments assigned by the instructor.</i>	United States History	12
HONORS PRINCIPLES OF ECONOMICS Y	This course is a study of fundamental concepts and essential elements of the market economic system in a problem/issues orientation. Focus areas include opportunity costs and scarcity, supply/demand analysis, competitive markets, macroeconomics measurement, business cycles, inflation, unemployment, monetary and fiscal policies, and international trade. <i>Students receive embedded course credit for Personal Financial Literacy by completing additional assignments assigned by the instructor.</i>	Teacher Recommendation AP US History Y or Honors US History Y	12
AP MICROECONOMICS Y	The purpose of this AP course in microeconomics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy. <i>This is a year-long course.</i>	Teacher Recommendation AP US History Y or Honors US History Y	12

Social Studies Electives

Course Title	Course Description	Course Pre-requisites	Grade
PSYCHOLOGY Y	This course provides a general overview of the principles and concepts of psychology. The purpose of this course is to provide a better understanding of human behavior and interpersonal relationships. Topics of applied psychology are also studied.	None	10-12
AP PSYCHOLOGY Y	The purpose of the Advanced Placement course in Psychology is to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the methods psychologists use in their science and practice.	11 th and 12 th Grades Only Previous AP course credit strongly recommended	11-12
SOCIOLOGY Y	Sociology is the study of human society and social behavior. The course provides students with a basic understanding of how humanity is shaped largely by the groups to which people belong and by the social interaction that take place within those groups. Societal problems in the United States will also be discussed.	None	10-12
INDIVIDUAL & THE LAW Y	Individual and the Law concentrates on constitutional and criminal law including the constitutional amendments, student constitutional rights (rights retained in school and those forfeited), and various aspects of criminal law. The course also reflects the vast topic of civil law including family law, rights in the workplace, housing, torts, consumer rights, and more. Students take appropriate law-related field trips, conduct a mock trial, and have a number of guest speakers who are directly involved in law including judges, attorneys, mediators, and probation officer.	None	11-12
U.S. & WORLD AFFAIRS Y	U. S. & World Affairs is an in-depth examination of contemporary local, state, national, and international issues. The main purpose of this course is to assess and analyze social, political, and economic issues involved in current events, and American involvement in international events since World War II.	None	11-12

Science

Course Title	Course Description	Course Pre-requisites	Grade
BIOLOGY I Y Milestone course	Biology is a required course in which the students will learn and understand biological functions and systems on the molecular, cellular, systemic, and environmental levels. Students should also be able to implement applications of biological processes to everyday situations.	Teacher Recommendation	9
HONORS BIOLOGY Y Milestone course	This is an accelerated course designed for students interested in pursuing advanced sciences or careers in the science or engineering fields. Students will learn and understand biological processes that occur on the molecular, cellular, systemic, and environmental levels. Students should also be able to implement applications of biological processes to everyday situations.	Teacher Recommendation	9
AP BIOLOGY Y (Milestone Course if not previously tested in a previous Biology Course)	The Advanced Placement Biology course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. The AP course in biology differs significantly from the usual first high school course in biology with respect to the textbooks used, the range and depth of topics covered, laboratory work done by students, and the time and effort required of students. It provides students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. Some students, as college freshmen, are permitted to undertake upper-level courses in biology or register for courses for which biology is a prerequisite after achieving an adequate score on the Advanced Placement Examination.	Teacher Recommendation Honors Biology Y and Honors level math courses recommended	11-12
MAGNET BIOLOGY Y Milestone course	Magnet Biology I is a required course in which the students will learn and understand biological functions and systems on the cellular, genetic, evolutionary, systematic, and ecological levels. Students will also be able to implement applications of biological processes to everyday situations. This course meets the graduation requirement of 1 unit of biology.	Magnet Students only	9
CHEMISTRY Y	Chemistry I is designed to introduce the student to how chemical principles and concepts are developed from observations and data, to understand and apply ordinary chemical and other scientific phenomena which he/she encounters in everyday activities, and to assist the student in appreciating the role of the chemist and the chemical industry in the evolution of our present day highly technological society.	Honors Biology Y or Biology Y and Algebra Y	10-12
HONORS CHEMISTRY Y	This is an accelerated course designed for students interested in pursuing science related and/or engineering collegiate degrees. Students will be introduced to how chemical principles and concepts are developed from observations and data, to understand ordinary chemical and other scientific phenomena, which he/she encounters in everyday activities, and to assist the student in appreciating the role of the chemist and the chemical industry in the evolution of our present day highly technological society. Emphasis is placed on experiments yielding data that when analyzed and interpreted; reveal important relationships such as trends and regularities, which can be used as a basis for developing unifying principles and concepts	Teacher Recommendation Honors Biology Y and/or Honors Algebra or higher math course or Biology Y and Honors Geometry Y	10-12
AP CHEMISTRY Y	Advanced Placement Chemistry is designed to be the equivalent of a college introductory chemistry course usually taken by students who have an interest in biological sciences, physical sciences, or engineering. The AP Chemistry course expands the knowledge and skills gained during the introductory high school chemistry course. It provides students with the conceptual framework, factual knowledge, and analytical skills	Teacher Recommendation Honors Chemistry Y and/or Honors Advanced Algebra Y	11-12

	necessary to deal critically with the rapidly changing science of chemistry. Some students, as college freshman, are permitted to undertake upper-level courses in chemistry or register for courses for which chemistry is a prerequisite after achieving an adequate score on the Advanced Placement Examination.		
MAGNET CHEMISTRY Y	Magnet Chemistry I is a study of the structure, properties and functions of matter, and is the foundation for a variety of fields of study as well as the basis for much of modern day industry and economics. Because of the abstract nature of atoms and molecules there is a strong conceptual component in its study, including both qualitative and quantitative laboratory work and mathematical analysis. At the honors level there is a significant amount of mathematics.	Magnet Students only	9
HONORS BIOCHEMISTRY Y {4 th or 5 th Science option}	This is an advanced chemistry course that studies macromolecules, their structure, and function within biological systems. Students will study the anabolism, use, and catabolism of those macromolecules (lipids, carbohydrates, proteins, and nucleic acids) within cells, and chemically how cells use and store energy, replicate themselves, and how those macromolecules are used within organismal behavior.	Honors, Magnet or AP Biology and Honors, Magnet or AP Chemistry	11-12
PHYSICS Y	Physics is a detailed conceptual physics course that introduces the relationships among speed, acceleration, and displacement. The laws of mechanics as applied to both linear and circular motion systems are explored. The conservation of energy and momentum are also covered. Other topics covered include light, sound, electromagnetic waves, electricity, electromagnetism, electronic and nuclear physics	2 Units of Science and GSE Geometry Y or GSE Algebra II Y	11-12
HONORS PHYSICS Y	Physics Honors is an accelerated course that details the relationship among speed, acceleration, and displacement. Vector mathematics is used to make calculations involving both kinetic and dynamic quantities. Algebraic treatments of the laws of mechanics as applied to both linear and circular motion systems are derived and explained. The concepts of conservation of energy and momentum are covered in detail. Other topics covered include light, sound, electromagnetic waves, electricity, electromagnetism, electronics and nuclear physics	Teacher Recommendation 2 Units of Science and Honors or Advanced level math courses	11-12
AP PHYSICS 1 Y	Advanced Placement Physics I provides a systematic introduction to the main principles of physics and emphasizes the development of problem-solving ability. The course covers the first semester of the typical college physics sequence that serves as the foundation in physics for student majoring pre-medicine or applied sciences. Some students, as college freshmen, are permitted to undertake upper-level courses in physics or register for courses for which physics is a prerequisite after achieving an adequate score on the Advanced Placement Examination.	Teacher Recommendation 2 Units of Science Concurrent enrollment in Advanced Algebra Y or Pre-Calculus Y	11-12
AP PHYSICS MECHANICS C Y	AP Physics C: Mechanics is a calculus-based physics course that covers kinematics, dynamics, energy, momentum, rotation, gravitation and oscillation. This course is the first of a two-course sequence that is equivalent to the introductory physics sequence taken by science and engineering students at most colleges and universities.	2 units of science, including Physics, Calculus and/or Teacher Recommendation	11-12
ENVIRONMENTAL SCIENCE Y	Environmental Science is designed as an integrated and global approach to science and technology. The concepts in this course focus on the links between living things, their surroundings, and the total environment of the planet. The scientific principles and related technology will assist the student in understanding the relationships between local, national, and global environmental issues. The intent of the course is to help individuals become informed, get involved, and care for one's self and the environment.	Teacher Recommendation Biology Y or 8 th grade Teacher Recommendation	9-10

AP ENVIRONMENTAL SCIENCE Y	AP Environmental Science (APES) is a laboratory science course equivalent to a one-semester college course in environmental science. This is an advanced study of topics in environmental science and will encompass multiple disciplines from the scientific field such as Earth Science, Biology, Physical Science, Chemistry, and Physics along with courses of study in math, geography, history, government and literature.	Teacher Recommendation Biology Y and Chemistry Y	12
HUMAN ANATOMY/PHYSIOLOGY Y {4 th or 5 th Science option}	This course is designed to give the student an overview of the structures and functions of the major systems of the human body. The course is particularly relevant for a student who is interested in pursuing a career in various medical fields. Students are expected to participate in laboratory activities including the dissection of various preserved animal specimens.	Teacher Recommendation or Honors Biology Y or Biology Y	11-12
HONORS HUMAN ANATOMY/PHYSIOLOGY Y {4 th or 5 th Science option}	Honors Human Anatomy/Physiology is an advanced course designed to give the student an in-depth look at the structures and functions of the major systems of the human body. The course is particularly relevant for a student who is interested in pursuing a career in the allied medical fields or who is interested in advanced competency in medical science.	Teacher Recommendation Honors Biology Y	11-12
Triple Play Y (combination course where students earn credit for AP Biology, Honors Anatomy/Physiology and Advanced DNA Genetics & Research)	This course will begin with a human body review of systems, and then focus on genetics and microbiology from the human body perspective. Throughout the course, students will be immersed in the process of independent primary research and inquiry learning with laboratory experiences. Incorporated into the course are the four “Big Ideas” that encompass the foundation of AP Biology.	Honors Biology and Honors or AP Chemistry and Teacher Recommendation	11-12
FORENSIC SCIENCE Y {4 th or 5 th Science option}	Students will learn the scientific protocols for analyzing a crime scene, how to use chemical and physical separation methods to isolate and identify materials, how to analyze biological evidence and the criminal use of tools, including impressions from firearms, tool marks, arson, and explosive evidence. Students will be required to use both critical thinking and problem solving skills attained in any courses providing chemistry and physics concepts.	Biology Y 1 unit of additional science (Chemistry Y recommended)	12
ZOOLOGY Y {4 th or 5 th Science option}	Students will recognize key features of the major body plans that have evolved in animals and how those body plans have changed over time resulting in the diversity of animals that are evident today. In addition to classification and recognition, this course teaches students about the anatomical and physiological characteristics of animals. These characteristics relate to how an animal functions and can help students see the connections uniting particular animal groups. An understanding of form and function allows students to study how animals have evolved over time and to relate animals to their particular role in an ecosystem	Biology 1 unit of additional science credit	11-12
HONORS ZOOLOGY Y {4 th or 5 th Science option}	Students will recognize key features of the major body plans that have evolved in animals and how those body plans have changed over time resulting in the diversity of animals that are evident today. In addition to classification and recognition, this course teaches students about the anatomical and physiological characteristics of animals. These characteristics relate to how an animal functions and can help students see the connections uniting particular animal groups. An understanding of form and function allows students to study how animals have evolved over time and to relate animals to their particular role in an ecosystem	Biology 1 unit of additional science credit	11-12
ADVANCED GENETICS/DNA RESEARCH Y {4 th or 5 th Science option}	This course is designed as a research-based advanced genetics course, which will focus on human genetics, the human genome, and DNA fingerprinting. Students are required to have a thorough background in scientific research and lab techniques.	This is a post-AP course – AP credit required in AP Biology, AP Chemistry or AP Physics	11-12

SCIENTIFIC RESEARCH II Y	Research II course will develop projects based on their interests. These projects may be related to topics that they are covering in any of their science courses or could expand on those ideas. It is expected that the students will receive some support from their teachers, but they will be working mostly independently. Projects at this level could be completed on a time frame of weeks to months. Presentations of the projects developed at this level will take place at regional or state science fair competitions for example. <i>This course does not meet the 4th Science requirement for graduation.</i>	Magnet Students Only	10-11
Scientific Research III Y	Research III course will develop projects based on their interests. Projects at this level would be original in nature and will investigate students' ideas to solve a particular problem. It is expected that the students will work with someone outside the school setting as they work towards the solution of their problem. This type of project may take the whole length of the course to be completed. Students completing these projects are expected to present their solutions to the appropriate interest groups or on settings.	Magnet Students Only	10-11