



FULTON SCIENCE ACADEMY
— Private School —

FSA High School Course Catalog For 2018-2019 Academic Year

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FSA Course Catalog 2018-2019

Table of Contents

<u>HIGH SCHOOL GRADUATION REQUIREMENTS</u>	3
<u>CAREER PATHWAYS</u>	4
<u>GRADING SCALE</u>	5
<u>COURSE OFFERINGS 2018-2019</u>	6
<u>COURSE DESCRIPTION</u>	9

HIGH SCHOOL GRADUATION REQUIREMENTS

Core Subjects	Credits	Courses
Language Arts	4	1 unit of 9 th grade literature and composition 1 unit of American Literature or AP English Language (w/American Literature) 2 additional units of LA
Science	4	1 unit of biology(can be AP) 1 unit of Physical Science or Physics (AP) 1 unit of Chemistry (AP) 1 unit of approved 4 th science
Mathematics	4	1 unit of GPS Algebra or Acc. Algebra Honors 1 unit of GPS Geometry or Acc. Geometry Honors 1 unit of GPS Algebra 2 or Acc. Pre Calculus Honors 1 additional core math unit
Social Studies	3	1 unit of World History (AP) 1 unit of US History (AP) ½ unit of American Government/civics ½ unit of Economics
World Languages	3	Career, Technical and Agricultural Education and/or Fine Arts and/or Modern Languages(Spanish, Turkish, Korean, etc..)
Health and Physical Education	1	½ unit of General Health ½ unit of Personal Fitness
Electives	4	4 units (can be selected from General electives or Career pathway Electives)
Total	23	

CAREER PATHWAYS

Career Pathway	Required Courses
Computer Science/Technology	Computer Science Principles/ AP Computer Science Principles Computer Science Honors/ AP Computer Science-A Media and Video Editing 3-D Modeling Game design: Animation and Simulation Artificial Intelligence Cyber security
Allied Health Medicine	Introduction to healthcare Essentials of Healthcare Allied health care and Medicine Medical Internship
Film making and Media Production	Media and Video Editing 3-D Modeling Audio and Video Technology film

GRADING SCALE

Fulton Science Academy has set the following grading scale:

A=90-100

B=80-89

C=70-79

F=Below 70

Students are awarded the quality points based on type of course they take. The following points are added to the scores received in each course:

Honors Course - 7 points are added to the score

AP Course - 10 points are added to the score

No extra points are added for any failing score.

Students receive the Weighted Numeric GPA on a 100-point scale. Students are placed on the Honors/AP classes depending on their class performance.

COURSE OFFERINGS 2018-2019

When using the Course catalog, please note that:

Course # - Computer Course code used in the school

Grade Level- The grade level students are eligible to take that course

Term S/Y – Duration of the course Semester/Year

Credit- Points awarded towards graduation

Prerequisite- Set of requirement(s) to be satisfied before taking the course

Course #	Mathematics	Grade level	Term S/Y	Credit	Prerequisite
27.0971040	Algebra-1 Honors	9	Y	1	Grade 8 Math
27.0972040	Geometry Honors	9-10	Y	1	Grade 8 Math and Algebra 1 Honors
27.0973040	Algebra-2 Honors	9-10	Y	1	Geometry Honors
27.0975040	Accelerated Algebra-1 /Geometry A Honors	9-12	Y	1	Grade 8 Math & > 95% in MAP Math & 8 th gr. final exam.
27.0976040	Accelerated Algebra-2/Geometry B Honors	9-12	Y	1	Accelerated Algebra-1 & Geometry A Honors
27.9740040	Accelerated Pre-Calculus Honors	9-12	Y	1	Accelerated Geometry B & Algebra-2 Honors
27.0720010	AP Calculus AB	9-12	Y	1	Accelerated Pre-Calculus Honors
27.0730010	AP Calculus BC	9-12	Y	1	AP Calculus AB
27.0801400	Calculus-II	9-12	Y	1	AP Calculus BC
27.0740010	AP Statistics	9-12	Y	1	Geometry Honors or Accelerated Algebra 2/Geometry B
27.9740000	Pre Calculus Honors	9-12	Y	1	Algebra-2 Honors
Course #	Science	Grade level	Term (S/Y)	Credit	Prerequisite
26.0120040	Biology Honors	9-10	Y	1	None
40.0510040	Chemistry Honors	9-10	Y	1	Honors Bio / A in -level Bio >=90 in Honors Math / Accelerated Math
40.0810000	Physics Honors	9-10	Y	1	Algebra-1 Honors*
40.0530010	AP Chemistry	10-12	Y	1	Chemistry Honors*

26.0140010	AP Biology	10-12	Y	1	Biology Honors/Chemistry Honors
26.0730040	Human Anatomy and Physiology Honors	10-12	Y	1	Biology/ Biology Honors Chemistry/ Chemistry Honors
40.0831010	AP Physics 1	11-12	Y	1	2 units of science, Pre Calculus and up
40.0842011	AP Physics C – Mechanics	11-12	S	0.5	AP Physics 1 & Teacher recommendation
40.0842012	AP Physics C - Electricity and Magnetism		S	0.5	AP Physics 1 & Teacher recommendation
Course #	Language Arts	Grade level	Term (S/Y)	Credit	Prerequisite
23.0610040	9 th grade Literature and Composition Honors	9	Y	1	8 th grade LA
23.0630000	World Literature /Composition Honors	9-11	Y	1	9 th Lit. and Teacher recommendation
23.0510040	American Literature Honors	9-12	Y	1	Teacher recommendation
23.0430000	AP English Language and Composition	11-12	Y	1	9 th Lit. And Teacher recommendation
23.0650010	AP English Literature and Composition	11-12	Y	1	AP Language/American Literature or American Literature Honors. And Teacher recommendation
23.0320000	Journalism and Creative Writing	9-12	Y	1	Teacher Recommendation
Course #	Social Studies	Grade level	Term (S/Y)	Credit	Prerequisite
45.0830040	World History Honors	10-12	Y	1	None
45.0810040	US History Honors	10-12	Y	1	
45.0620000	AP Macro Economics	11-12	S	0.5	
45.0811010	AP World History	10-12	Y	1	
45.0820010	AP US History	10-12	Y	1	
45.2520010	AP Government and Politics	11-12	S	0.5	
45.0770010	AP Human Geography	9-10	Y	1	
45.0160040	AP Psychology	9-12	Y	1	
Course #	World Languages	Grade level	Term (S/Y)	Credit	Prerequisite
60.0710040	Spanish-I Honors	8-10	Y	1	
60.0720040	Spanish-II Honors	8-11	Y	1	Spanish I Honors

60.0730040	Spanish-III Honors	10-12	Y	1	Spanish II Honors
60.0740040	Spanish-IV Honors	10-12	Y	1	Spanish III Honors
60.0750000	Spanish V Honors	10-12	Y	1	Spanish IV Honors
60.0770010	AP Spanish Language	10-12	Y	1	Spanish IV Honors
62.06100	Turkish-I Honors	8-9	Y	1	Teacher recommendation
62.06200	Turkish-II Honors	9-10	Y	1	Turkish I honors
62.06300	Turkish-III Honors	10-12	Y	1	Turkish II Honors
Course #	Career Path	Grade level	Term (S/Y)	Credit	Prerequisite
	Computer Science / Technology				
11.3710000	Computer Science Principles Honors	9-12	Y	1	None
11.01900	AP Computer Science Principles	9-12	Y	1	None
11.01600	AP Computer Science A	9-12	Y	1	AP Computer Science Principles
10.51110	Media and Video Editing	9-12	Y	1	None
Course #	General Electives	Grade level	Term (S/Y)	Credit	Prerequisite
53.0361000	Beginning Band-I	9-12	Y	1	Music Teacher recommendation
53.0362000	Beginning Band-II	9-12	Y	1	Beginning Band-I
53.0561000	Beginning Orchestra-I	9-12	Y	1	Music Teacher recommendation
53.0562000	Beginning Orchestra-II	9-12	Y	1	Beginning Orchestra-I
21.4250000	Foundations of Engineering and Technology	9-12	Y	1	None
	Health / Personal Fitness				
17.0110001	Health (Required)	9-12	S	0.5	None
36.0510001	Personal Fitness (Required)	9-12	S	0.5	None

COURSE DESCRIPTION

SOCIAL STUDIES

Course Name: World History Honors

Course Number: 45.0830040

Prerequisite:

Course Description: Prehistoric culture, ancient civilizations, classical civilizations, the medieval world, the Age of Exploration, Enlightenment, French Revolution, decline of colonial empires in America, Industrial Revolution, nationalism and imperialism, totalitarianism, WWI, WWII, and the modern world.

Course Name: US History Honors

Course Number: 45.0810040

Prerequisite:

Course Description: Colonization, the revolutionary and colonial eras, manifest destiny, Civil War and reconstruction, urbanization and Industrialism, progressive era, imperialism, WWI & WWII, The Cold War, Vietnam, and the Decades of 1950 – 2000.

Course Name: Economics Honors

Course Number: 45.0630010

Prerequisite:

Course Description: This is a semester long course. Supply and demand, market forces, money, banking and capital, organization of natural resources, the national economy and global interdependence.

Course Name: American Government Honors

Course Number: 45.0570040

Prerequisite:

Course Description: This is a semester long course. Political philosophies that influenced the foundations of U.S. government and why countries develop different forms of government globally; U.S. constitutional principles and the branches of government; and factors influencing the political process. Students will construct and evaluate arguments, use documents and other primary source data to analyze point of view and understand and interpret information, and write document-based and comparative analysis essays.

Course Name: AP World History

Course Number: 45.0811010

Prerequisite:

Course Description: Teaching students to think historically, to construct historical arguments and to analyze data within an historical context will be the focus of AP World History. With material from 8000 BCE to the present serving as the basis for study, students will explore multiple perspectives as they analyze global patterns that have occurred over time. Students will

spend a great deal of time writing, reading, and interpreting artifacts as they strive to become true historians themselves. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: AP US History

Course Number: 45.0820010

Prerequisite:

Course Description: The advanced placement course in United States History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the challenges and issues in U.S. History. The study of U.S. History begins with a brief review of the discovery and settlement of the Americas and continues into a rigorous in- depth study of U.S. History from the mid-17th century to the present time. Students will learn to analyze and interpret primary sources, to take notes from lectures and printed materials, and to write essays and analytical/historiographical papers. Topics include: Multicultural heritage, Colonial period, American Revolution, Jacksonian Democracy and sectionalism, Civil War and Reconstruction, Triumph of the American Nation, Gilded Age, Progressivism and immigration, Great Depression and New Deal, Labor movement, Civil Rights and women's movement, World Wars I and II, Cold War, and New World Order. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: AP Macro Economics

Course Number: 45.0620010

Prerequisite:

Course Description: This is a semester long course. The purpose of the AP course in macroeconomics is to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination, and also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. This is a semester- long course and satisfies the economics graduation requirement. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: AP United States Government and Politics

Course Number: 45.0520010

Prerequisite:

Course Description: The AP course in U.S. Government and Politics is a semester- long course. It is designed to assist students in becoming knowledgeable about the Constitution, the varied political beliefs and behaviors which shape U.S. government, the role of political parties and interest groups, the organization and power of Congress, the president, the bureaucracy, the federal courts, and the development of civil rights and liberties. Students will play roles in simulations such as moot courts, participate in debates, read and analyze current issues, take notes from lectures, and answer multiple choice and free response questions. Outside of class, students will attend local government meetings and may visit the Carter Museum and Library, the Martin Luther King Center, and the State Capitol. In order for a student to be successful in this class,

he/she should possess these specific skills: ability to read college level texts independently; ability to critically analyze written materials; ability to take notes and move rapidly through material; ability to work independently outside of class with disciplined work habits; ability to recognize new ideas and perspectives, with a willingness to learn about and respect differences of opinion. This course is equivalent to a college course and will be more rigorous than a high school honors course.

SOCIAL STUDIES ELECTIVES

Course Name: AP Human Geography

Course Number: 45.0770010

Prerequisite:

Course Description: Human Geography is a branch of geography that deals with the way humans interact with their environment. We will study demographics, migration, linguistics, religion, political geography, urbanization and industrialization. Specific skills for success: above average reading ability and above average writing skills. Outside commitments: vocabulary quizzes each week and bi-weekly map quizzes in addition to nightly textbook reading. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: AP Psychology

Course Number: 45.0160010

Prerequisite:

Course Description: The purpose of Advanced Placement Psychology is to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Throughout the course, students will be exposed to the psychological facts, principles and phenomena associated with each of the major subfields of psychology. In addition, the course will stress the need to think like a psychologist. Whether students choose to pursue a career in psychology or in an entirely different field, this habit of mind will be of great value. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Track	Freshman	Sophomore	Junior	Senior
Honors/AP	AP Human Geography*	World History Honors	US History Honors	US Government/ Macro Economics
AP	AP Human Geography*	AP World History	AP US History	AP US Government/ AP Macro Economics

Required : 3 units of Social Studies

Must include:

- 1 unit of World History
- 1 unit of US History
- ½ Unit of US Government AND ½ unit of Economics

* AP Human Geography and AP Psychology are considered as SS Electives.

ENGLISH

Course Name: 9th grade Literature and Composition Honors

Course Number: 23.0610040

Prerequisite: 8th grade LA

Course Description: This course focuses on a study of literary genres; the students develop initial understanding of both the structure and the meaning of a literary work. The students explore the effect of the literary form in regards to interpretation. The students will read across the curriculum to develop academic and personal interests in different subjects. While the focus is technical writing in ninth grade literature, the student will also demonstrate competency in a variety of writing genres: narrative, expository, persuasive, and technical. The students will engage in research, timed writings, and the writing process. Instruction in language conventions will occur within the context of reading, writing, and speaking, rather than in isolation. The students demonstrate an understanding of listening, speaking, and viewing skills for a variety of purposes.

Course Name: World Literature and Composition Honors

Course Number: 23.0630040

Prerequisite: 9th grade Literature and composition

Course Description: This course focuses on a study of World Literature; the students develop an understanding of chronological context and the relevance of period structures in literature within world cultures. A focus is to explore the ways the work's place of origin affects its structure and how the chronology of a literary work affects its meaning. The students develop an understanding of literature as both a culture's product and a culture-bearer. An exploration of commonalities and differences among works of literature from different times and places in the world is a major component. The students will read across the curriculum to develop academic and personal interests in different subjects. This course involves writing and research.

Course Name: American Literature Honors

Course Number: 23.0510040

Prerequisite: Teacher recommendation

Course Description: This course focuses on the study of American literature, writing modes and genres, and essential conventions for reading, writing, and speaking. The student develops an understanding of chronological context and the relevance of period structures in American literature. The students develop an understanding of the ways the period of literature affects its structure and how the chronology of a work affects its meaning. The students read a variety of informational and literary texts in all genres and modes of discourse. Reading across the curriculum develops students' academic and personal interests in different subjects. While expository writing is the focus in American literature, the students will also demonstrate competency in a variety of writing genres: narrative, persuasive, and technical. The student will engage in research, timed writing, and the writing process. Instruction in language conventions will occur within the context of reading, writing, and speaking. The students demonstrate an understanding of listening, speaking, and viewing skills for a variety of purposes.

Course Name: AP English Language and Composition

Course Number: 23.0530010

Prerequisite: 9th Literature and composition and Teacher recommendation

Course Description: 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 affect 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 from across the curriculum and read texts in all genres and modes of discourse, as well as visual and graphic images. Instruction in language conventions and essential vocabulary will occur within the context of reading, writing, speaking, and listening. The students will demonstrate an understanding of listening, speaking, and viewing skills for a variety of purposes. This course will focus on the consideration of subject, occasion, audience, purpose, speaker, and tone as the guide for effective writing, as well as the way generic conventions and resources of language contribute to writing effectiveness. The students will compose a variety of writing, including expository, analytical, and argumentative writings which support the academic and professional communication required by colleges; and personal and reflective writings which support the development of writing facility in any context. The students will produce responses to timed writing assignments, as well as writing that proceeds through several stages or drafts, which include opportunities for revision guided by feedback from teacher and peers. Students will analyze primary and secondary sources and develop the research skills needed to effectively synthesize these sources for their writing. An AP syllabus must be submitted and approved by the College Board. (This literature module is recommended as a designated substitute for American Literature.) This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: AP English Literature and Composition

Course Number: 23.0650010

Prerequisite: AP English Language and Teacher recommendation

Course Description: The course focuses on an intensive study of representative works from various literary genres and periods. The focus is on the complexity and thorough analysis of literary works. The students will explore the social and historical values that works reflect and embody. The textual detail and historical context provide the foundation for interpretation: the experience of literature, the interpretation of literature, and the evaluation of literature. Writing to evaluate a literary work involves making and explaining judgments about its artistry and exploring its underlying social and cultural values through analysis, interpretation, and argument (e.g. expository, analytical, and argumentative essays). The writers will develop stylistic maturity: strong vocabulary, sentence variety, and effective use of rhetoric to maintain voice. An AP syllabus will be submitted and approved by College Board. This course is equivalent to a college course and will be more rigorous than a high school honors course.

ENGLISH ELECTIVES

Course Name: Journalism/Creative Writing

Course Number: 23.0320000

Prerequisite: None

Course Description: This course focuses on journalistic writing through analysis of newspapers, yearbooks, literary magazines, and broadcast journalism publications. A concentration on the following components of journalistic writing is critical: influence, purpose, structure, and diction. Reading, writing, and critical thinking are key components as students explore the power and influence of journalism. Students will participate in news gathering, the study of ethics, and the aspects of copy writing, editing, and revising and will study the ethics of journalism. If a publication is produced, the students will learn the process of publishing.

Track	Freshman	Sophomore	Junior	Senior
Honors	9 th Lit/Comp Honors	World Lit. /Comp Honors	American Literature Honors	AP English Language
Honors/AP	9 th Lit/Comp Honors	World Lit. /Comp Honors	AP English Language /American Literature	AP English Literature
Required : 4 units of English				
Must include:				
<ul style="list-style-type: none"> ● 1 unit of 9th Literature and Composition ● 1 unit of American Literature OR AP Language/American Literature ● 2 more units of LA 				

SCIENCE

Course Name: Biology Honors

Course Number: 26.0120040

Prerequisite:

Description: This curriculum includes more abstract concepts such as the interdependence of organisms, the relationship of matter, energy, and organization in living systems, the behavior of organisms, and biological evolution. Students investigate biological concepts through experience in laboratories and field work using the processes of inquiry. All honors biology students will investigate a topic in science that relates to their science curriculum, review the literature, and produce a report of their findings with parenthetical documentation and a works cited page. Major Concepts/ Skills: Classification to the Characteristics of Science Six Kingdom level, Matter-

Energy Relationships, DNA/RNA, Homeostasis, Plant/Animal Characteristics, Genes and Successive Generations, Heredity, Ecosystems, Biological Evolution.

Course Name: Chemistry Honors

Course Number: 40.0510040

Prerequisite:

Course Description: This curriculum includes more abstract concepts such as the structure of atoms, structure and properties of matter, and the conservation and interaction of energy and matter. Students investigate chemistry concepts through experience in laboratories and field work using the processes of inquiry. All honors chemistry students will investigate a question in science that relates to chemistry, review the literature, and produce annotated bibliographies. Major Concepts/ Skills: Classifications of Matter, Atomic Theory/Configuration, Periodicity, Bonding/Nomenclature, Chemical Reactions, Law of Conservation of Matter, Empirical/Molecular Formulas, Stoichiometry, Kinetic Molecular Theory/Phase Changes, Gas Laws, Solutions/Concentrations, Acid/Base Chemistry.

Course Name: Physics Honors

Course Number: 40.0810040

Prerequisite:

Course Description: This curriculum includes more abstract concepts such as interactions of matter and energy, velocity, acceleration, force, energy, momentum, and charge. Students investigate physics concepts through experience in laboratories and field work using the processes of inquiry. Major Concepts/ Skills: Kinematics, Energy and its transformations, Electricity, Magnetism, Wave properties.

Course Name: AP Biology

Course Number: 26.0140010

Prerequisite:

Course Description: Students should have successfully completed Biology and Chemistry or are taking Chemistry concurrently with AP Biology. The course is based on four Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about living organisms and biological systems. The following are Big Ideas: The process of evolution explains the diversity and unity of life. Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis. Living systems store, retrieve, transmit, and respond to information essential to life processes. Biological systems interact, and these systems and their interactions possess complex properties. Twenty-five percent of instructional time is devoted to hands-on laboratory work with an emphasis on inquiry-based investigations. Investigations require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: AP Chemistry

Course Number: 40.0530010

Prerequisite:

Course Description: The key concepts and related content that define the AP Chemistry course and exam are organized around underlying principles called the Big Ideas. They encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the particulate nature of matter underlying the observations students make about the physical world. The following are Big Ideas: The chemical elements are the building blocks of matter, which can be understood in terms of the arrangements of atoms. Chemical and physical properties of materials can be explained by the structure and the arrangement of atoms, ions, or molecules and the forces between them. Changes in matter involve the rearrangement and/or reorganization of atoms and/or the transfer of electrons. Rates of chemical reactions are determined by details of the molecular collisions. The laws of thermodynamics describe the essential role of energy and explain and predict the direction of changes in matter. Bonds or attractions that can be formed can be broken. These two processes are in constant competition, sensitive to initial conditions and external forces or changes. Twenty-five percent of instructional time is devoted to inquiry based laboratory investigations. Students ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: AP Physics 1

Course Number: 40.0831010

Prerequisite: 2 units of science, Pre Calculus and up

Course Description: AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Students explore principles of Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. The course is based on six 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. The following are Big Ideas: Objects and systems have properties such as mass and charge. Systems may have internal structure. Fields existing in space can be used to explain interactions. The interactions of an object with other objects can be described by forces. Interactions between systems can result in changes in those systems. Changes that occur as a result of interactions are constrained by conservation laws. Waves can transfer energy and momentum from one location to another without the permanent transfer of mass and serve as a mathematical model for the description of other phenomena. Twenty-five percent of instructional time is devoted to hands-on laboratory work with an emphasis on inquiry-based investigations. Investigations will require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress.

This course is equivalent to a college course and will be more rigorous than a high school honors course.

Track	Freshman	Sophomore	Junior	Senior
Honors	Biology Honors	Chemistry Honors	Physics Honors	AP Physics 1 OR AP Chemistry OR AP Biology
Honors/AP*	Biology Honors	Chemistry Honors	AP Physics 1 OR AP Chemistry OR AP Biology	4 th Science **
AP *** (All AP sciences can be considered for Lab Sciences)	AP Biology	AP Chemistry	AP Physics 1	AP Physics C OR 4 th Science **
<p>Required : 4 units of Science</p> <p>Must include:</p> <ul style="list-style-type: none"> ● 1 unit of Biology ● 1 unit of Chemistry ● 1 unit of Physics / Physical Science ● 1 more unit of Science (**4th Science can be Environment Science, Human Anatomy and Physiology, Earth Systems or any AP science) <p>* Students with the Physical Science credit</p> <p>*** Students who have prerequisites met</p>				

MATH

Course Name: Algebra 1 Honors

Course Number: 27.0971040

Prerequisite:

Description: Students will formalize and extend the mathematics that they learned in the middle grades; deepen and extend understanding of linear relationships, in part by contrasting them with exponential phenomena, and in part by applying linear models to data that exhibit a linear trend; use algebra to deepen and extend understanding of geometric knowledge from prior grades; and tie together the algebraic and geometric ideas studied.

Course Name: Geometry Honors

Course Number: 27.0972040

Prerequisite:

Description: Transformations on the coordinate plane provide opportunities for the formal study of congruence and similarity. The study of similarity leads to an understanding of right triangle trigonometry and connects to quadratics through Pythagorean relationships. The study of circles uses similarity and congruence to develop basic theorems relating circles and lines. The need for extending the set of rational numbers arises, and real and complex numbers are introduced so that all quadratic equations can be solved. Quadratic expressions, equations, and functions are developed; comparing their characteristics and behavior to those of linear and exponential relationships. The link between probability and data is explored through conditional probability.

Course Name: Algebra 2 Honors

Course Number: 27.0973040

Prerequisite:

Description: Analyze polynomial functions of higher degree; explore logarithmic functions as inverses of exponential functions; solve a variety of equations and inequalities numerically, algebraically, and graphically; use matrices and linear programming to represent and solve problems; use matrices to represent and solve problems involving vertex-edge graphs; investigate the relationships between lines and circles; recognize, analyze, and graph the equations of conic sections; investigate planes and spheres; solve problems by interpreting a normal distribution as a probability distribution; and design and conduct experimental and observational studies.

Course Name: Pre Calculus Honors

Course Number: 27.9740000

Prerequisite:

Course Description: The study of circles and parabolas is extended to include other conics such as ellipses and hyperbolas. Trigonometric functions are further developed to include inverses, general triangles, and identities. Matrices provide an organizational structure in which to represent and solve complex problems. Students expand the concepts of complex numbers and the coordinate plane to represent and operate upon vectors. Probability rounds out the course using counting methods, including their use in making and evaluating decisions.

Course Name: Accelerated Algebra 1/Geometry A Honors

Course Number: 27.0975040

Prerequisite:

Description: The fundamental purpose of Accelerated Algebra/Geometry A is to formalize and extend the mathematics that students learned in the middle grades. The critical areas, organized into units, deepen and extend understanding of linear relationships, in part by contrasting them with exponential phenomena, and in part by applying linear models to data that exhibit a linear trend. Coordinate Algebra uses algebra to deepen and extend understanding of geometric knowledge from prior grades. The next unit in the course ties together the algebraic and geometric ideas studied. Transformations on the coordinate plane provide opportunities for the formal study of congruence and similarity. The study of similarity leads to an understanding of right triangle trigonometry and connects to quadratics through Pythagorean relationships. The study of circles uses similarity and congruence to develop basic theorems relating circles and

lines and rounds out the course. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Course Name: Accelerated Geometry B/Algebra 2 Honors

Course Number: 27.0976040

Prerequisite:

Description: The focus of Accelerated Geometry B / Algebra 2 is organized into 10 critical areas. The need for extending the set of rational numbers arises and real and complex numbers are introduced so that all quadratic equations can be solved. Quadratic expressions, equations, and functions are developed; comparing their characteristics and behavior to those of linear and exponential relationships from Coordinate Algebra. Circles return with their quadratic algebraic representations on the coordinate plane. The link between probability and data is explored through conditional probability. They apply methods from probability and statistics to draw inferences and conclusions from data. Students expand their repertoire of functions to include polynomial, rational, and radical functions. They expand their study of right triangle trigonometry to model periodic phenomena. And, finally, students bring together all of their experience with functions and geometry to create models and solve contextual problems. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Course Name: Accelerated Pre Calculus Honors

Course Number: 27.9740040

Prerequisite:

Description: Investigate and use rational functions; analyze and use trigonometric functions, their graphs, and their inverses; find areas of triangles using trigonometric relationships; use trigonometric identities to solve problems and verify equivalence statements; solve trigonometric equations analytically and with technology; use complex numbers in trigonometric form; understand and use vectors; use sequences and series; explore parametric representations of plane curves; explore polar equations; investigate the Central Limit theorem; and use margins of error and confidence intervals to make inferences from data.

Course Name: AP Calculus AB

Course Number: 27.0720010

Prerequisite:

Course Description: Real numbers and the Cartesian plane; review of functions, limits and their properties; derivatives, differentiation, and application; anti-derivatives and indefinite integration; area and definite integrals; integration by substitution; the Trapezoidal rule; logarithmic, exponential and other transcendental functions; and applications and methods of Integration.

Course Name: AP Calculus BC

Course Number: 27.0730010

Prerequisite:

Course Description: Review of functions, limits, and their properties; differentiation and integration; applications of differentiation; logarithmic, exponential, and other transcendental functions; applications of integration and integration techniques; improper integrals; and L'Hôpital's Rule. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: AP Statistics

Course Number: 27.0740010

Prerequisite:

Course Description: Introduction to statistics, descriptive statistics, probability; probability distributions and normal probability distributions; estimates and sample size; hypothesis testing; inferences from two samples; correlation and regression; multinomial experiments; analysis of variance; statistical process control; nonparametric statistics; and design and sampling. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Track	Freshman	Sophomore	Junior	Senior
Honors	GSE Algebra 1 Honors	GSE Geometry Honors	GSE Algebra 2 Honors	GSE Pre Calculus Honors
Accelerated / Honors	Accelerated Algebra 1 Honors/ Geometry A	Accelerated Geometry B / Algebra 2 Honors	Accelerated Pre Calculus Honors	AP Calculus AB or AP Calculus BC *
Accelerated / AP (Acc.Algebra 1/Geo.A Hons) – 8 th grade	Accelerated Geometry B / Algebra 2 Honors	Accelerated Pre Calculus Honors	AP Calculus AB or AP Calculus BC	GA Tech Distance Math **

Required : 4 units of Mathematics

Must include:

- 1 unit of Algebra 1
- 1 unit of Geometry
- 1 unit of Algebra 2
- 1 unit of Pre Calculus

* AP Calculus BC placement is based on Teacher recommendation

** AP Statistics can be taken as an elective as a 4th math course.

WORLD LANGUAGE

Course Name: Spanish I Honors

Course Number: 60.0710040

Prerequisite:

Description: This beginning level Spanish course is designed to introduce students to the Spanish language and culture of Spanish-speaking peoples. Students will use the four language skills listening, speaking, reading and writing to attain proficiency and ability to communicate in Spanish. Major Topics: Spanish pronunciation, greetings & common expressions, family & school, time, shopping/purchases, food/meals & celebrations, house/locations, beach activities, leisure time activities, transportation, Spanish culture.

Course Name: Spanish II Honors

Course Number: 60.0720040

Prerequisite:

Description: This class moves at an accelerated pace and continued emphasis upon communication skills is stressed. This course continues the development of listening comprehension, reading, speaking and writing skills in order to promote an appreciation and understanding of the Spanish-speaking people, their culture and civilization. Emphasis is placed on comprehension of Spanish, as well as, reading and writing practice in the target language using a variety of activities incorporating familiar vocabulary and structures. Aspects of contemporary Spanish culture are introduced through the use of media, games, readings and in small or large group discussions. In addition to written/oral tests and quizzes, students are assessed using a variety of formats: oral dialogues, presentations, written compositions, etc. It is important to remember that homework assignments are an integral part of this course as they not only reinforce concepts and skills that are introduced in class, but also enable students to participate in class discussions. Continuous effort to use the target language is essential as well as active participation is a must to be prepared for Spanish 3.

Course Name: Spanish III Honors

Course Number: 60.0730040

Prerequisite:

Course Description: In-depth study of all topics in Spanish 3 with heavy emphasis on listening and speaking proficiency with additional authentic Spanish-language sources; continuing preparation for AP Spanish. During this level 3 of Spanish students continue to develop and increase their language learning in Spanish through the study of more advanced language structures in cultural and historical contexts. The study of the language structures and vocabulary is guided through reading, listening, speaking and writing activities. Aspects of contemporary Spanish and Hispanic cultures are emphasized in this class. Students will be assessed using a variety of strategies including: oral and written tests and quizzes, classroom discussions and interactive activities, oral assignments, presentations, dialogues, short compositions and other displays.

Course Name: Spanish IV Honors

Course Number: 60.0740040

Prerequisite:

Course Description: Intense development of communicative, cultural, and advanced grammatical competence; final preparation for AP Spanish; near-exclusive use of Spanish in

class. Spanish 4 course provides students the opportunity to further develop, improve and refine their listening, speaking, reading and writing skills. This course continues to focus on oral skills with additional emphasis on reading and writing in the target language. As well as Spanish 3, this course is taken in Spanish 100% and homework assignments are an integral part of this course since they reinforce concepts/skills presented and explored in class, which enable students to participate in class discussions and activities in a meaningful way. **Pre-AP** activities will be integrated into the curriculum.

Course Name: AP Spanish Language and Culture

Course Number: 60.0770010

Prerequisite:

Course Description: College-level course that provides intense preparation for the AP Language and Culture exam using authentic Spanish- language sources; in-depth reading, speaking, and listening on themes of global challenges, science and technology, contemporary life, families and communities, identities, and beauty; exclusive use of Spanish in class. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: Turkish I Honors

Course Number: 62.06100

Prerequisite:

Course Description: Introduces the Turkish language; emphasizes all skills: listening, speaking, reading, and writing in an integrated way. Includes how to greet and take leave of someone, to ask and respond to basic questions, to speak and read within a range of carefully selected topics and to develop an understanding of Turkish-speaking culture.

Course Name: Turkish II Honors

Course Number: 62.06200

Prerequisite:

Course Description: Enhances Level One skills in Turkish and provides opportunities to develop listening, speaking, reading, and writing skills in an integrated way. Provides continued practice in how to greet and take leave of someone, to ask and respond to basic questions, to speak and read within a range of carefully selected topics and to increase understanding of Turkish-speaking culture.

Course Name: Turkish III Honors

Course Number: 62.06300

Prerequisite:

Course Description: Enhances Level Two skills in Turkish and provides further opportunities to increase listening, speaking, reading, and writing skills in an integrated way. Provides continued practice in previous topics and introduces new topics; offers further opportunities to increase understanding of Turkish-speaking culture.

Track	Freshman	Sophomore	Junior	Senior
Honors	Turkish I Honors	Turkish II Honors	Turkish III Honors	
Honors	Spanish I Honors	Spanish II Honors	Spanish III Honors	Spanish IV Honors
Honors/ AP (With Spanish I Credit)	Spanish II Honors	Spanish III Honors	Spanish IV Honors	AP Spanish
Required : 3 units of World Language				
*Students planning to get into University System of GA Institutions should have credit for two years of the same language.				

PHYSICAL EDUCATION AND HEALTH

Course Name: Personal Fitness

Course Number: 36.0510001

Prerequisite:

Course Description: This semester long course helps students develop a physical fitness program. Students are introduced to the concepts of stress management, weight training and conditioning, and proper nutrition. Progress toward individual fitness goals is measured throughout the semester. This is a graduation requirement.

Course Name: Health

Course Number: 17.0110001

Prerequisite:

Course Description: This is a semester long course. Wellness concepts, human sexuality, State ADAP requirements, CPR training, first aid procedures, safety practices, and responsibility for health decisions. This is a graduation requirement.

ELECTIVES

Course Name: Foundations of Engineering and Technology

Course Number: 21.4250000

Prerequisite: None

Course Description: This course is designed for beginning students who are interested in careers related to the design, production, analysis, repair, and operation of devices that use electronics. Students interested in robotics and science Olympiad will also enjoy this course. The course should be designed around major individual and class projects that promote critical thinking, problem solving, and abstract reasoning that encourages the students to become an investigative life long learners. Teachers should develop units around real-life work centered situations that

integrate content across the curriculum. The integrated project should provide the student with opportunities to develop and demonstrate technical, academic, cognitive, and personal competencies. Students are expected to set goals, research careers, and develop plans for achieving desired goals.

Course Name: Journalism/Creative Writing

Course Number: 23.0320000

Prerequisite: None

Course Description: This course focuses on journalistic writing through analysis of newspapers, yearbooks, literary magazines, and broadcast journalism publications. A concentration on the following components of journalistic writing is critical: influence, purpose, structure, and diction. Reading, writing, and critical thinking are key components as students explore the power and influence of journalism. Students will participate in news gathering, the study of ethics, and the aspects of copy writing, editing, and revising and will study the ethics of journalism. If a publication is produced, the students will learn the process of publishing.

Course Name: AP Human Geography

Course Number: 45.0770010

Prerequisite:

Course Description: Human Geography is a branch of geography that deals with the way humans interact with their environment. We will study demographics, migration, linguistics, religion, political geography, urbanization and industrialization. Specific skills for success: above average reading ability and above average writing skills. Outside commitments: vocabulary quizzes each week and bi-weekly map quizzes in addition to nightly textbook reading. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: Computer Science Honors

Course Number: 11.41400

Prerequisite:

Course Description: Introduction to the central ideas of computing and computer science, ideas of computational thinking, and activities that show how computing and computer science change the world.

Course Name: AP Computer Science Principles

Course Number: 11.0190000

Prerequisite:

Course Description: Introduction to the central ideas of computing and computer science, ideas of computational thinking, and activities that show how computing and computer science change the world. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: AP Computer Science -A

Course Number: 11.0160010

Prerequisite: AP Computer Science Principles

Course Description: Application of data abstraction and encapsulation, class specifications and relationships among classes, design and interface, modification of existing code, extension of existing code using inheritance, and analysis of algorithms. This course is equivalent to a college course and will be more rigorous than a high school honors course.

Course Name: Beginning Band I

Course Number: 53.0361000

Prerequisite: None

Course Description: Students in the band classes will work on techniques for their chosen band instrument (flute, clarinet, trumpet, or trombone) and develop the skills to perform in a small and large ensemble group. The course curriculum will follow the Georgia Performance Standards. Band participants are required to attend all scheduled rehearsals and performances.

Course Name: Beginning Band II

Course Number: 53.0362000

Prerequisite: Beginning Band I

Course Description: Students in the band classes will work on techniques for their chosen band instrument (flute, clarinet, trumpet, or trombone) and develop the skills to perform in a small and large ensemble group. The course curriculum will follow the Georgia Performance Standards. Band participants are required to attend all scheduled rehearsals and performances.

Course Name: Beginning Orchestra I

Course Number: 53.0561000

Prerequisite: None

Course Description: Students in the orchestra classes will work on techniques for their chosen string instrument (violin, viola, cello, or bass) and develop the skills to perform in a small and large ensemble group. The course curriculum will follow the Georgia Performance Standards. Orchestra participants are required to attend all scheduled rehearsals and performances.

Course Name: Beginning Orchestra II

Course Number: 53.0562000

Prerequisite: Beginning Orchestra I

Course Description: Students in the band classes will work on techniques for their chosen band instrument (flute, clarinet, trumpet, or trombone) and develop the skills to perform in a small and large ensemble group. The course curriculum will follow the Georgia Performance Standards. Band participants are required to attend all scheduled rehearsals and performances.

Course Name: Media / Video Editing

Course Number: 10.51110

Prerequisite: None

Course Description: Students will be taught to familiarize and get acquainted with not just shooting and editing video but how to tell a story and share a message with the appropriate audience. They will be exposed to commercials, documentaries, news, and visual gaming. . It

will cover the on a general level the basics of the world of media as it pertains to scripting, editing, producing as well as practicing responsible behavior in the production process. There will be suggested reference material both text and digital, power points and video tutorials throughout the course.