



2021-2022 Upper School Elective Offerings

"If we make money the object of human-training, we shall develop money-makers but not necessarily humans; if we make technical skill the object of education, we may possess artisans but not, in nature, humans. Humans we shall have only as we make people the object of the work of the schools—intelligence, broad sympathy, knowledge of the world that was and is, and of the relation of humans to it—this is the curriculum of that Higher Education which must underlie true life."

- W.E.B. Du Bois

Below you will find a summary of the elective offerings for next school year along with notes about prerequisites. **Please review this document carefully in anticipation of the course request form which we'll distribute in the upcoming weeks.** If you have any questions about the course selection process, please direct them to Mr. Flynn or Ms. Faux. We've also provided a description of the standard course progression for students grades 9-12 at the bottom of this document. This will be especially helpful to rising 9th graders as they work to visualize their next four years. We have not accounted for every possible iteration of the schedule, but the table should be instructive, nonetheless. In addition, we've provided a copy of the course map detailing exact graduation requirements.

Again, we're pleased to expand the choices available to our students in the 8th hour window as this represents the next stage in the development of our academic program. When the faculty proposed these electives, they began with a list of questions that emerged naturally from classes they taught within our rich core curriculum but which they didn't always have time to address. As we look forward to the fall, we're excited to broaden our range of inquiry as we continue our pursuit of truth together in the upper school.

Notes for Freshmen:

- All freshmen will take composition during the 8th hour (elective hour) in the fall semester. Their first elective opportunity occurs in the spring semester.
- All freshmen must take health and personal fitness. If students wish to open up a study hall for themselves during the school day, they may elect to complete either of these classes during the summer. If interested, students should notify Ms. Faux. These classes cost \$100 each.

Notes for Sophomores:

- Students aspiring to take both AP Biology and AP Chemistry may fulfill their general education chemistry requirement during the second semester of their sophomore year in the 8th hour chemistry intensive.
- Students will take a fine arts course during the semester opposite moral philosophy.

Notes for Juniors:

- Political philosophy is now paired with American Government as a full-year course.

Notes for Seniors:

- The third semester of American History has been replaced with Lessons in Wonder.

Full-Year Elective Offerings (*All classes offered during 8th hour*)

Class Title: Major Movements and Ideologies of the Modern World

Teacher: Mr. Rosenzweig

Class Description: This course will educate the students in many major trends of the modern world starting in the early 1700's. We start with Liberalism and will expand from that topic as it affected Europe and the rest of the world. Classes will include group analysis of primary documents, debates, simulations, Socratic instruction, and round table discussions. Primary documents are provided by the teacher and no textbook is required. The course will be divided into eight units all working off the previous unit. The units are as follows:

- I. Liberalism
- II. Industrial Revolution and Capitalism
- III. Nationalism (Part I)
- IV. Global Imperialism
- V. Nationalism (Part II)
- VI. Totalitarianism
- VII. Marxism/Socialism and Communism
- VIII. Globalization

Prerequisites: Must be a rising senior

Credits: 1.0

Class Title: AP Computer Science Principles

Teacher: Ms. Holley

Class Description: AP CS Principles is an independent study college-level course. While learning Python, students will learn to communicate and make connections between a concept and computing, communicate their ideas on computing and technology, analyze a problem, design a solution, and code the solution

Concepts:

- Python Language & Syntax
- Turtle Graphics
- Use of Variables & Operators
- Basic Console Interaction for Input & Output

- Booleans & Conditionals
- Branching & Looping
- Top-Down Design
- Functions
- Lists

Prerequisites: Teacher Approval.

Credits: 1.0

Class Title: AP CSA (Independent Study)

Teacher: Ms. Holley

Class Description: AP CSA is an independent study college-level course. While learning a subset of Java students will learn to analyze a problem, design a solution, code the solution, and test that all possible input options to their solution work. Students will independently learn to think analytically and critically so as to present all possible scenarios and to trace their coded solution for correctness and accuracy.

Concepts:

- Java Language & Syntax
- Use of Variables
- Creation of Classes & Objects
- Control Structures
- Arrays & Array Lists
- Inheritance & Polymorphism
- Recursion
- Sorting & Searching Algorithms

Prerequisites: AP CS Principles and Teacher Approval.

Credits: 1.0

Fall Semester Elective Offerings (*All classes offered during 8th hour*)

Class Title: Number Theory and Cryptography

Teacher: Mr. Clausen

Class Description: Number theory, one of the oldest branches in mathematics, seeks to uncover the hidden rules and patterns contained in numbers themselves, especially the prime numbers. Students in this class will study questions like, "How many prime numbers are there, and how spread out are they?" "How can I count extremely large numbers efficiently?" and "How are prime numbers used in modern computer encryption technology?" It will include discussions of probability, cryptography, and a healthy dose of math-inspired puzzles and games.

Prerequisites: Algebra II

Credits: 0.5

Class Title: Problems in Engineering

Teacher: Mr. Han

Class Description: This upper-level course provides students an opportunity to employ engineering and scientific concepts in the solution of engineering design problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community.

Prerequisites: B in Mathematics and Physics

Credits: 0.5

Class Title: Digital Electronics

Teacher: Mr. Dawson

Class Description: The Digital Electronics elective is based on FIRST Tech Challenge (FTC). FIRST is a global robotics community that also hosts competitions each year. While this course will not be

participating in formal competitions, students will be able to use standardized engineering principles to design, develop and test their own robot that is able to complete a series of competition-style tasks.

Prerequisites: Before the class begins in the Fall, students must complete a 25-hour, independent course. This is the coding language that will be used throughout the course and it is imperative that students obtain this background knowledge before the school year begins.

Credits: 0.5

Class Title: Applied Philosophy

Teacher: Dr. KT

Class Description: How can philosophy help us with our day-to-day struggles in education, relationships, work, and leisure? Applied philosophy is the application of philosophy to everyday living, and it aims to provide us with the knowledge and tools to grapple with ordinary problems using careful reflection and critical thinking. We will read and discuss several key texts and consider how the insights of great minds such as Aristotle and Marcus Aurelius can guide our decisions and change our lives. We will also discuss real-life quandaries, learn about logical fallacies that occur in everyday language, and consider how the philosophies of art and science impact us on a daily basis.

Prerequisites: Teacher approval.

Credits: 0.5

Class Title: Piano

Teacher: Mr. Henriques

Class Description: We will explore improvisation, composition at the keyboard, efficient practice techniques, and repertoire building. We will develop technical and musical skills necessary for clean, expressive playing. Opportunities for public performance will be provided.

Prerequisites: Teacher approval based on previous experience and current skill level

Credits: 0.5

Class Title: Studio Art

Teacher: Ms. Adams

Class Description: In this elective we will explore the different types of mediums and techniques that are used in art. We will offer courses in Intermediate Drawing, Intermediate Painting, Mixed Media, Advanced Drawing, Advanced Painting, Portfolio Building, and Open Studio. Through these courses we will have the opportunity to not only learn about art, but to create and display our own works.

Prerequisites: Teacher approval based on previous experience and current skill level

Credits: 0.5

Class Title: Choir

Teacher: Mr. Franklin

Class Description: The elective choir will have the opportunity to share the beautiful through the performing of a wide range of music genres. These groups serve as an ambassador for our school as we perform at special events, in our community and around the region.

Prerequisites: Teacher approval

Credits: 0.5

Class Title: Strings

Teacher: Ms. Wiggin

Class Description: The strings ensemble will have the opportunity to share the beautiful through the performing of a wide range of music genres. These groups serve as an ambassador for our school as we perform at special events, in our community and around the region.

Prerequisites: Teacher approval

Credits: 0.5

Spring Semester Elective Offerings (*All classes offered during 8th hour*)

Class Title: Other Voices

Teacher: Mr. Hawkins

Class Description: At ACA we justifiably pride ourselves on our study of the Great Books. From *The Iliad* to *All the King's Men*, we read some of the best books ever written. However, since most of these books come from the Western and European tradition, our students may have gaps in their broader understanding of the world and of world literature. This class is intended to begin to fill in some of those gaps.

From Africa: *Things Fall Apart*.

From Asia: *An Artist of the Floating World*.

From the Middle East: *Persepolis: The Story of a Childhood*.

From Latin America: *Love in the Time of Cholera*.

Prerequisites: Permission of the teacher.

Credits: 0.5

Class Title: Principles of Engineering and Design

Teacher: Mr. Han

Class Description: This introductory course provides students an opportunity to investigate basic engineering principles while developing skills and understanding of concepts through activity, project, and problem-based learning. Students learn how engineers use math, science, and technology in an engineering problem-solving process. This course challenges students to continually hone their communication skills, creative abilities, and problem-solving skills based on engineering concepts learned throughout the course.

Prerequisites: B in Mathematics

Credits: 0.5

Class Title: Competitive Math

Teacher: Mr. Gwak

Class Description: Competitive Math includes a thorough exploration of the beauty of *Algebra, Geometry, Combinatorics, Number Theory* beyond the regular high school math courses. Students develop more by learning to solve puzzle-style problems they haven't seen before, as opposed to offering repeated drills that students can memorize their way through. This course is specifically designed for high-performing math students. Via intriguing problems and competition-style practice, this course will guide students through rigorous training from start to finish. Improve student's speed and accuracy while gaining an appreciation for how fun math can be. Upon completion, the student will have the tools needed to successfully tackle math competitions at the introductory level of AMC.

Concepts:

- Algebra: Equations and Data
- Geometry: Measures, Similarity and Composites
- Combinatorics: Counting and Probability
- Number Theory: Efficiency and Factorization

Prerequisites: A in Algebra I

Credits: 0.5

Class Title: Advanced Composition

Teacher: Ms. Kookogey

Class Description: Building on the foundation laid by the freshman composition course, Advanced Composition gives students the opportunity to refine their execution of each component of rhetorical analysis: developing and articulating an arguable thesis, learning how to close read a text, organizing and presenting that close reading, and responding to potential counterarguments. As we work through each of these units, students will hone their own style by imitating the syntax and voice of a variety of authors and poets. Because of the small class size, this course will offer students the opportunity for more individualized support as they move beyond the fundamentals of writing and develop their own writing voice.

Prerequisites: Completion of 9th Grade Composition and teacher approval.

Credits: 0.5

Class Title: Ethics

Teacher: Dr. KT

Class Description: Ethics is the philosophical study of how we ought to live. This introductory course will cover the three distinct branches of Ethics: Meta-ethics, which considers the nature of moral theories and language; Normative Ethics, which examines various theories of moral action such as Natural Law, Utilitarianism, Virtue Ethics, and Kantian Ethics; and Applied Ethics, which deals with specific contemporary moral issues within bioethics, environmental ethics, social ethics, and business ethics. We will explore questions like 'Can moral statements be true or false?', 'What should be done with people who commit horrific crimes?', 'How should we treat animals?', and 'Is being good dependent on duty, virtue, consequence, or intention?'. We will tackle the major moral questions surrounding birth, death, happiness, desire and freedom, the meaning of life, and the proper way to approach ethical debates. Students will engage with the primary texts of influential ethicists and participate in lively and fruitful discussions about fascinating ethical matters.

Prerequisites: Teacher approval.

Credits: 0.5

Class Title: Chemistry Intensive

Teacher: Mrs. Huff

Class Description: This elective is available to 10th grade students who are enrolled in AP Biology, and would like to request placement in AP Chemistry their 11th grade year. The course will condense 10th grade general chemistry into one semester, to be taken in the spring of 10th grade. This will deliver the foundational skills and concepts needed for success in AP chemistry.

Prerequisites: Students must have completed one semester of AP Biology.

Credits: 0.5

Class Title: Piano

Teacher: Mr. Henriques

Class Description: We will explore improvisation, composition at the keyboard, efficient practice techniques, and repertoire building. We will develop technical and musical skills necessary for clean, expressive playing. Opportunities for public performance will be provided.

Prerequisites: Teacher approval based on previous experience and current skill level

Credits: 0.5

Class Title: Studio Art

Teacher: Ms. Adams

Class Description: In this elective we will explore the mediums and techniques that are used in art. We will offer courses in Intermediate Drawing, Intermediate Painting, Mixed Media, Advanced Drawing, Advanced Painting, Portfolio Building, and Open Studio. Through these courses we will have the opportunity to not only learn about art, but to create and display our own works.

Prerequisites: Teacher approval based on previous experience and current skill level

Credits: 0.5

Class Title: Choir

Teacher: Mr. Franklin

Class Description: The elective choir will have the opportunity to share the beautiful through the performing of a wide range of music genres. These groups serve as an ambassador for our school as we perform at special events, in our community and around the region.

Prerequisites: Teacher approval

Credits: 0.5

Class Title: Strings

Teacher: Ms. Wiggin

Class Description: The strings ensemble will have the opportunity to share the beautiful through the performing of a wide range of music genres. These groups serve as an ambassador for our school as we perform at special events, in our community and around the region.

Prerequisites: Teacher approval

Credits: 0.5

Additional AP Offerings (*All classes offered during hours 1-7*)

Class Title: AP Physics

Teacher: Mr. Dawson

Class Description:

Physics is the study of matter, energy, and the interactions between them. In this course, students will be challenged to understand a wide range of concepts in the mechanics, electricity, and magnetism fields of Physics. The subgroups of these categories that will be covered in this course include Motion, Newton's Laws of Motion, Energy, Rotational Motion, Vibrations and Waves, Electricity and Circuits.

This is an Algebra-based course and will consist of a combination of lecture notes, homework assignments, lab reports, as well as tests and quizzes. Completion of this course will ultimately prepare students to take part in the AP Physics 1 Exam at the conclusion of the school year.

Prerequisites:

Students enrolled in AP Physics 1 must have already taken and passed Algebra II with an A, and must be currently enrolled, or have previously taken Pre-Calculus. In addition, students enrolled in this course must have already taken and passed Geometry, or an equivalent course. Fundamentals of Algebra, Geometry and Trigonometry will be used throughout the course, so it is imperative for students to have a strong foundation in these fundamentals.

Credits: 1.0

Class Title: AP Calculus BC

Teacher: Mr. Gwak

Class Description: Students will be introduced to the fundamental principles of differential and integral calculus. Topics covered include detailed study of limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable with applications to curve-tracing, maxima-minima related rate, and infinite series problems. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to derivative and antiderivative related problems with and without technology. Students will have the opportunity to take the AP exam at the end of the course,

Prerequisites: A in Precalculus and Teacher Approval

Credits: 1.0

Class Title: AP Chemistry

Teacher: Mrs. Huff

Class Description: AP Chemistry is designed to be comparable to a year-long, college-level general chemistry course. We will explore in much greater depth the concepts learned in general chemistry, as well as new material that will build upon your previous knowledge. This class gives students a chance to experience what a college class may be like, challenges them with new information, and it prepares them to take the AP exam. Students will use their knowledge in performing labs, thus “seeing and doing” those concepts they learn in class and will develop a greater understanding of how chemistry affects the environment in which we live. Major topics covered will include the structure of matter, intermolecular forces, chemical reactions, kinetics, thermochemistry, equilibrium, acid-base chemistry, and electrochemistry. Students will learn numerous chemical calculation skills in the study of the content, and in the analysis of lab data.

Prerequisites: A average in Chemistry, completion of Algebra II, and teacher approval.

Credits: 1.0

Class Title: AP Biology

Teacher: Dr. Elrod

Class Description: The primary goal of this course is the development of an understanding and application of the concepts of biology. Essential to this conceptual understanding is the grasping of science as a process rather than an accumulation of facts, participating in scientific inquiry, and recognizing unifying themes that integrate the major topics of biology, including, evolution, energetics, information storage and transmission, and systems interactions. An emphasis will be on describing, explaining, and interpreting scientific data. Analysis of experimental results and designing experiments is a core component of the course. Students should have a genuine interest in biology.

Prerequisites: A in Biology, completion of Algebra I, and teacher approval.

Credits: 1.0

Standard High School Course Progression

Freshmen Year:

Fall	Spring
Classical Literature	Classical Literature
Western Civilization I	Western Civilization I
Latin III or Spanish I	Latin III or Spanish I
Algebra I or Geometry	Algebra I or Geometry
Biology	Biology
Health*	Personal Fitness*
Composition	ELECTIVE BLOCK

**Students who elect to take health or personal fitness over the summer can open up a study hall during the school day. This could be helpful to students as they adjust to the high school workload.*

N.B. Some students may be more or less advanced in their language or math classes.

Sophomore Year:

Fall	Spring
British Literature	British Literature
Western Civilization II	Western Civilization II
Latin IV or Spanish II	Latin IV or Spanish II
Geometry or Algebra II	Geometry or Algebra II
Chemistry or AP Biology*	Chemistry or AP Biology*
Moral Philosophy	Fine Arts
ELECTIVE BLOCK	ELECTIVE BLOCK

**If a student elects to take AP Biology as a sophomore, they are allowed to take AP Chemistry as a junior if they take the chemistry intensive during the second semester of sophomore year.*

N.B. Some students may be more or less advanced in their language or math classes.

Junior year:

Fall	Spring
American Literature	American Literature
American History	American History
Latin V or AP Latin	Latin V or AP Latin
Algebra II or Precalculus	Algebra II or Precalculus
AP Chemistry* or Physics	AP Chemistry* or Physics
Government	Political Philosophy
ELECTIVE BLOCK	ELECTIVE BLOCK

**Students who elect to take AP Chemistry must take either physics or AP Physics their senior year.*

N.B. Some students may be more or less advanced in their language or math classes.

Senior year:

Fall	Spring
Modern European Literature	Modern European Literature
Modern European History	Modern European History
Latin VI or Spanish IV	Latin VI or Spanish IV
Precalculus or AP Calculus BC	Precalculus or AP Calculus BC
AP Physics or Anatomy & Physiology	AP Physics or Oceanography
Economics	Lessons in Wonder
ELECTIVE BLOCK	ELECTIVE BLOCK

N.B. Some students may be more or less advanced in their language or math classes.

ACA Course Map

ATLANTA CLASSICAL ACADEMY										
High School Curriculum (Class of 2024 and Beyond)										
Area of Study	Req. Credits	Duration	Ninth		Tenth		Eleventh		Twelfth	
Literature	4.5	Year	Classical Lit		British Lit		American Lit		Modern European Lit. (with senior thesis)	
		Semester	Composition							
History	4	Year	Western Civ I		Western Civ II		American History		Modern European History	
Math	4 (during 9-12)	Year	Algebra I		Geometry		Algebra II		Pre-Calculus (or AMDM)	
		Year	Geometry		Algebra II		Pre-Calculus		Calculus I or AP Calculus BC	
Science	4	Year	Biology		Chemistry		Physics		Oceanography + Physiology	
			Biology		AP Biology		Chemistry		Physics or AP Physics	
			Biology		Chemistry		AP Chemistry		Physics or AP Physics	
			Biology		AP Biology (Year) + Chemistry (2nd Semester)		AP Chemistry		AP Physics	
Foreign Language	3 (in 9-12) 2 Credits of Same Language	Year	Latin III		Latin IV		AP Latin or Latin V		Latin VI or AP Latin	
		Year	Spanish I		Spanish II		Spanish III		Spanish IV	
Fine Arts	1	Semester				Fine Arts Course				Lessons in Wonder
Personal Fitness / Health	1	Semester	Personal Fitness	Health						
Additional ACA Requirements	2	Semester			Moral Philosophy		American Government	Political Philosophy	Economics	
Electives	0.5	Semester	Students take one semester-long elective course any time during 9-12 grade. An elective course is any credit-earning course that is not listed as a graduation requirement elsewhere.							
Credits Required for Graduation	24									