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AP Course Catalog

Innovation Academy
2024-2025 School Year



AP Course Overview

- + College Board encourages students to take AP courses in topics they are HIGHLY interested in
 - + They, along with Innovation, discourage taking AP courses to just “add to your resume”
- + Check the Reported Workloads for each course to ensure you can maintain the amount of time needed for success
- + Read the Essential Skills: do you have the skills needed to perform well in the class or are you just signing up because it is an AP course?

AP Music Theory

Student Reported Workload	Teacher Report Workload
2.1 Hours Per Week	4-5 Hours Per Week

Pre-requisites	<ul style="list-style-type: none">• Private Lessons (piano, violin, flute, etc.)• Participation in school music ensembles• Contact Mr. Vu (vum@fultonschools.org) for more info
Course Summary	AP Music Theory is an introductory college-level music theory course. Students cultivate their understanding of music theory through analyzing performed and notated music as they explore concepts such as pitch, rhythm, form, and musical design. Interested students should have basic musical literacy and, ideally, have taken private lessons or participated in school music ensembles.
Essential Skills	The AP Exam will consist of: <ul style="list-style-type: none">• Analysis of musical recordings• Analysis of written musical scores• Writing classical-style four-part harmonies• Sight-singing

AP Microeconomics & Macroeconomics

Student Reported Workload	Teacher Report Workload
2.2 Hours Per Week	3-5 Hours Per Week Class contains projects that will necessitate outside collaboration and work

Pre-requisites	<ul style="list-style-type: none">• Grade of 85 or above in AP U.S. History OR Grade of 90 or above in on-level U.S. History• Score of 3 or above on previous social studies AP tests
Course Summary	<ul style="list-style-type: none">• AP Microeconomics is an introductory college-level microeconomics course. Students explore the economics decisions of individuals and firms by using principles and models to describe economic situations and predict and explain outcomes. Topics include scarcity and markets; costs, benefits, and marginal analysis; production choices and behavior; and market inefficiency and public policy.• AP Macroeconomics explores the principles of economics that apply to an economic system using graphs, charts, and data.
Essential Skills	<ul style="list-style-type: none">• Students should be able to read a college-level textbook and possess basic mathematics and graphing skills.• Students should be strong independent learners• Students should have strong time-management skills

AP Psychology

Student Reported Workload	Teacher Report Workload
2.7 Hours Per Week	4 Hours Per Week Class contains projects that will necessitate outside collaboration and work

Pre-requisites	80 in AP sophomore/junior class OR 90 in on-level sophomore/junior class
Course Summary	The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatments of psychological disorders, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, evaluate claims and evidence, and effectively communicate ideas.
Essential Skills	Advanced critical reading and writing abilities are necessary; pacing demands high degree of independent learning ; math and graph literacy are important

AP U.S. History

Student Reported Workload	Teacher Report Workload
3.2 Hours Per Week	4 Hours Per Week Class contains projects that will necessitate outside collaboration and work

Pre-requisites	AP World History, World History
Course Summary	Serving as an In-depth investigative survey of the development of the United States from the Colonial Period to the modern, AP US History is source-based journey meant to serve as the flagship course in the AP History catalog. Students will learn via college style lectures that are supplemented by independent textbook study and primary source analysis. Students will learn to develop their historical argumentative skills via a scaffolded process that supports students as they prepare for the AP Exam in May.
Essential Skills	Advanced critical reading and writing abilities are necessary; pacing demands high degree of independent learning Per Course CED: Students should be able to read a college-level textbook and write grammatically correct, complete sentences.

AP World History

Student Reported Workload	Teacher Report Workload
4.7 Hours Per Week	4 Hours Per Week Class contains projects that will necessitate outside collaboration and work

Pre-requisites	80% + unweighted AP Gov. Score +3 on AP Gov exam OR 90% + in on-level Gov. And Econ. and teacher recommendation
Course Summary	AP World History Modern is an introductory college-level course covering historical events and developments from 1200 CE to the present. Student will learn specific examples of abstract global process and develop necessary argumentation essay skills to make and defend a historical claim with specific and relevant evidence.
Essential Skills	Advanced critical reading and writing abilities are necessary; pacing demands high degree of independent learning Per Course CED: Students should be able to read a college-level textbook and write grammatically correct, complete sentences. Organization and time management, self-advocating, perseverance in face of failure.

AP U.S. Government and Politics

Student Reported Workload	Teacher Report Workload
3 Hours Per Week	4 Hours Per Week Class contains projects that will necessitate outside collaboration and work

Pre-requisites	N/A
Course Summary	AP Government is a challenging course that requires students to think critically and engage with complex political concepts. Provides an in-depth look at the United States political system. The course covers a wide range of topics, including the structure and function of the government, political parties and interest groups, and public policy.
Essential Skills	Advanced critical reading and writing abilities are necessary.

AP Human Geography

Student Reported Workload	Teacher Report Workload
2.8 Hours Per Week	4 Hours Per Week Class contains projects that will necessitate outside collaboration and work without time in class

Pre-requisites	No course pre-requisites. Students should be able to read college-level texts and write grammatically correct, complete sentences making use of appropriate vocabulary, models, and theories. Recommended 90+ in Georgia Studies. Students should have basic geographic knowledge (locations of countries, major cities, and major physical geographic features)
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Course Summary	This course is equivalent to an introductory college-level course in human geography. It introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences.
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Essential Skills	Data analysis, source (image, graph, chart, map) analysis, scale analysis Time management, advanced reading comprehension and writing, self-motivation, ability to advocate for oneself, grit
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AP Biology

Student Reported Workload	Teacher Report Workload
5.9 Hours Per Week	5 Hours Per Week

Pre-requisites	Successfully Completed Honors Biology (unweighted 88 and above) concurrently enrolled/have completed Chemistry
Course Summary	The AP Biology course is an introductory college-level biology for majors course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions.
Essential Skills	<ul style="list-style-type: none">•Independent learner who has strong problem-solving skills – making connections and apply content to real world phenomena.•Able to interpret and analyze science concepts and visual representations of processes.•Able to perform statistical tests, visualization of data, and interpret mathematical calculations to analyze and interpret data.•Able to develop and justify scientific arguments using evidence and scientific/data reasoning.

AP Chemistry

Student Reported Workload	Teacher Report Workload
3.6 Hours Per Week	4 Hours Per Week

Pre-requisites	Students should have successfully completed high school chemistry and Algebra II.
Course Summary	The AP Chemistry course is designed to be equivalent of the general chemistry college course. Chemistry understanding is enhanced through inquiry-based investigations and lab work. AP Chemistry is highly recommended for students who are considering pursuing a career in medical fields or engineering.
Essential Skills	<ul style="list-style-type: none">• Work Independently and from Multiple Sources (textbook, videos, etc.)• Strong Mathematical and Problem-Solving Skills• 87 or higher in Algebra II and Honors Chemistry Recommended• Meeting Deadlines

AP Physics 1

Student Reported Workload	Teacher Report Workload
2.5 Hours Per Week	4 Hours Per Week

Pre-requisites	Students should have a strong foundation in reasoning with algebraic symbols and working with algebraic structures Must have completed or be concurrently enrolled in pre-calculus. Must have received at an 85% or higher in Algebra.
Course Summary	Learn about the foundational principles of physics as you explore Newtonian mechanics; work, energy, and power; mechanical waves and sound; and introductory, simple circuits. (Algebra-Based)
Essential Skills	<ul style="list-style-type: none">• Strong algebra, geometry, and trigonometry skills.• Strong problem-solving skills – making connections between derived equations and phenomena discussed in class• Self-Guided Practice outside of class

AP Physics C Mechanics

Student Reported Workload	Teacher Report Workload
4.2 Hours Per Week	5 Hours Per Week

Pre-requisites	<p>Students should have a strong foundation in reasoning with algebraic symbols and working with algebraic structures</p> <p>AP Physics I (very strong students with AP science teacher recommendation can skip AP Physics I)</p> <p>Completed or concurrently taking calculus</p> <p>If concurrently taking calculus:</p> <p>Accelerated PreCalculus (90+)</p>
Course Summary	<p>Explore concepts such as kinematics; Newton's laws of motion, work, energy, and power; systems of particles and linear momentum; rotation; oscillations; and gravitation. You'll do hands-on laboratory work and in-class activities to investigate phenomena and use calculus to solve problems. Course is guided student inquiry.</p>
Essential Skills	<ul style="list-style-type: none">• Strong algebra, geometry, and trigonometry skills.• Basic calculus - understanding of derivatives and integrals• Strong problem-solving skills – making connections between derived equations and phenomena discussed in class• Self-Guided Practice outside of class

AP Physics C: Electricity

Student Reported Workload	Teacher Report Workload
4.2 Hours Per Week	5 Hours Per Week

Pre-requisites	Students should have a strong foundation in reasoning with algebraic symbols and working with algebraic structures Completed or concurrently taking calculus If concurrently taking calculus: Accelerated Pre-Calculus (85+)
Course Summary	AP Physics C: Electricity and Magnetism is a one-semester, calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in one of the physical sciences or engineering. Students cultivate their understanding of physics through classroom study and activities as well as hands-on laboratory work as they explore concepts like change, force interactions, fields, and conservation.
Essential Skills	<ul style="list-style-type: none">• Strong algebra, geometry, and trigonometry skills.• Basic calculus - understanding of derivatives and integrals• Strong problem-solving skills – making connections between derived equations and phenomena discussed in class• Self-Guided Practice outside of class

AP Environmental Science

Student Reported Workload	Teacher Report Workload
3.5 Hours Per Week	4 Hours Per Week

Pre-requisites	Honors Biology (85% or above in Honors Biology or Honors Chemistry) (80% or above in AP Science Course) *Unweighted
Course Summary	Explore and investigate the interrelationships of the natural world and analyze environmental problems, both natural and human-made. A detailed look on creating a more sustainable future.
Essential Skills	Fast-paced course that has a mix of lecture, activities, labs, and projects. Need thorough reading comprehension and writing skills. Application of content through problem-solving ability.

AP Seminar

Student Reported Workload	Teacher Report Workload
3.4 Hours Per Week	5-7 Hours Per Week

Pre-requisites	9th Honors Literature & Composition (85 or higher) OR Teacher Recommendation
Course Summary	AP Seminar is a course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Students learn to investigate a problem or issue, analyze arguments, compare different perspectives, synthesize information from multiple sources, and work alone and in a group to communicate their ideas.
Essential Skills	<ul style="list-style-type: none">• Conducting research (as a team and individually)• Creating and presenting research findings & arguments (as a team and individually)• Propose solutions for real-world problems

AP Language & Composition

Student Reported Workload	Teacher Report Workload
2.7 Hours Per Week	3-5 Hours Per Week

Pre-requisites	<ul style="list-style-type: none">• An 80 or above in current English class (unweighted)• Recommendation in Infinite Campus from current ELA teacher
Course Summary	Advanced Placement English Language and Composition is an advanced college-level study of the methods of development in expository, analytical, and argumentative writing. Students will write in a variety of composition methods, analyze rhetoric and writing styles of authors, read and study American literature, and improve comprehension of rigorous texts in order to prepare for the Georgia End of Course exam in April and AP exam in May.
Essential Skills	<ul style="list-style-type: none">• The ability to read and write critically• A willingness to develop arguments through evidence-based research• Preparation to write frequently and revise thoroughly• A mindset that accepts feedback and incorporates feedback into writing

AP English Literature

Student Reported Workload	Teacher Report Workload
2.7 Hours Per Week	3-5 Hours Per Week

Pre-requisites	<ul style="list-style-type: none">- An 80 or above in current English class (unweighted)- Recommendation in Infinite Campus from current ELA teacher
Course Summary	AP English Literature teaches students to read and analyze works of literature and poetry. Students will cultivate their understanding of literature through reading and analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works. AP Lit is both reading and writing intensive.
Essential Skills	<ul style="list-style-type: none">• Students who take AP Lit should have a passion for reading and discussion and be prepared to dedicate time to reading multiple novels throughout the year• Can engage in close reading and advanced analysis of works from a variety of genres and time periods• Can organize thoughts and writing in focused, clear, and coherent language• Are prepared to write often• Can thoughtfully contribute to discussions• Have strong time management and organizational skills

AP Research

Student Reported Workload	Teacher Report Workload
4.1 Hours Per Week	5 hours Per Week

Pre-requisites	<p>Juniors (by invitation only):</p> <ul style="list-style-type: none"> • Score of 4 or 5 in AP Seminar and AP Lang and an AP Science • Recommendation from Science or Statistics AND ELA teachers • Successful completion of required summer work 	<p>Seniors (after H or OL Research):</p> <ul style="list-style-type: none"> • Score of 3+ in AP Seminar • Grade of 90+ in OL Research • Grade of 85+ in H Research • Recommendation from On-Level or Honors Research teacher • Strong work ethic
Course Summary	<p>Students dive deep into an academic topic or problem by designing and implementing a year-long investigation to answer their research question. Students further their understanding of research methodology, ethical research practices, and the analysis and synthesis of information. The course culminates in a 5000-word academic research paper and a 15–20-minute presentation and oral defense.</p>	
Essential Skills	<p>Students must have a high level of reading comprehension, critical thinking, statistical reasoning, experimental design, and academic writing skills. Students must be prepared to dedicate time to reading through a large quantity of academic research papers throughout the course. Intrinsic motivation to dive into the research process helps immensely.</p>	

AP Computer Science Principles

Student Reported Workload	Teacher Report Workload
1.75 Hours Per Week	2 Hours Per Week

Pre-requisites	Introduction to Digital Technology
Course Summary	APCSP is an introductory computer science course that encompasses programming, algorithm analysis and development, computing systems (networks), the impact of computing, data representation and Big Data.
Essential Skills	Written communication, logical problem solving, ability to follow a detailed rubric/project specifications, self-direction on a long-term project

AP Computer Science A

Student Reported Workload	Teacher Report Workload
2.4 Hours Per Week	2 Hours Per Week

Pre-requisites	Introduction to Digital Technology and AP Computer Science Principles
Course Summary	AP Computer Science A is a Java programming course. The course also emphasizes the design issues that make programs understandable, adaptable, and, when appropriate, reusable. It also emphasizes the development and analysis of algorithms, the development and use of fundamental data structures, and the study of standard algorithms and typical applications.
Essential Skills	Logical program development, thorough program testing, detailed analysis of code execution and tracing, creative problem solving and perseverance when faced with a challenging problem.

AP PreCalculus

Student Reported Workload	Teacher Report Workload
2.7 Hours Per Week	4-5 Hours Per Week

Pre-requisites	Students should have a solid foundation in Algebra, Geometry, and Advanced Algebra 80+ Advanced Algebra <i>(We highly encourage students NOT to take Advanced Algebra over the summer before taking AP Precalculus. Those students have not been prepared for the rigor required in AP Precalculus.)</i>
Course Summary	AP PreCalculus covers topics designed to prepare students for college-level math coursework, including polynomial, rational, exponential, logarithmic, trigonometric, polar and parametric functions as well as vectors, matrices and conic sections.
Essential Skills	Knowledge of functions (domain, range, excluded values), Algebraic skills (factoring, solving various types of equations), right triangle trigonometry, exponential and logarithmic functions, critical thinking skills in math.

AP Calculus AB

Student Reported Workload	Teacher Report Workload
4.3 Hours Per Week	4-5 Hours Per Week

Pre-requisites	Students should have a strong foundation in reasoning with algebraic symbols and working with algebraic structures 80+ AP PreCalculus or Enh Adv Alg & PreCalc 70+ on-level Calculus <i>(We highly encourage students NOT to take PreCalculus over the summer before taking AP Calculus. Those students have not been prepared for the rigor required in AP Calculus.)</i>
Course Summary	This course is equivalent to one semester of college calculus and covers the study functions and curve; limits and continuity; differential and integral calculus and their applications.
Essential Skills	Familiarity with functions (solving, graphing, characteristics) including linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse, and piecewise-defined functions

AP Calculus BC

Student Reported Workload	Teacher Report Workload
3.9 Hours Per Week	4-5 Hours Per Week

Pre-requisites	Students should have a strong foundation in reasoning with algebraic symbols and working with algebraic structures 90+ AP PreCalculus or Enh Adv Alg & PreCalc 70+ AP Calculus AB <i>(We highly encourage students NOT to take PreCalculus over the summer before taking AP Calculus. Those students have not been prepared for the rigor required in AP Calculus.)</i>
Course Summary	This course is equivalent to two semesters of college calculus and covers the study functions and curve; limits and continuity; differential and integral calculus and their applications; calculus of parametric, polar, and vector functions; and series and polynomial approximations.
Essential Skills	Familiarity with functions (solving, graphing, characteristics) including linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse, parametric, and polar and piecewise-defined functions

AP Statistics

Student Reported Workload	Teacher Report Workload
2.8 Hours Per Week	3-4 Hours Per Week

Pre-requisites	Students should have a strong foundation in reading and comprehension skills, as well as Algebra II concepts. <i>Students can take concurrently with any math course after completing Advanced Algebra (Algebra II) with a 70+</i>
Course Summary	In this course students learn to analyze qualitative and quantitative data through graphical displays, regression, confidence intervals, and hypothesis tests. Students will learn to describe random processes and communicate conclusions based on statistical analyses.
Essential Skills	This is a fast-paced college level course that consistently utilizes basic Algebra II concepts, reading, and writing skills. Students must be prepared to analyze word problems and write in depth responses to demonstrate their understanding.