

	Course Title	Course Pre-Reqs	Description	Course Meets	Summer Assignment	Work Load	Who Should Take It?
Sciences	AP Biology & Scientific Investigation	HS Biology and Chemistry	Major's Level Biology Course - 2 semesters of college freshman level Lecture/Lab. Topics include chemistry of life, cells, cellular energetics, heredity, molecular genetics, evolutionary biology, diversity of organisms, ecology, structure/function of plants and animals.	90 minutes every day (2 class periods)	None	Approx. 3 ch/week, Weekly quizzes, Monthly unit tests, Science Fair, Research projects	Interested in science, Like reading, Well disciplined, Responsible, Good time management, Independent worker
	AP Chemistry	Chemistry 1/Honors, Algebra 2	One year of College Chemistry, complete with the lab. Topics cover the structure of matter, the states of matter, reactions, descriptive chemistry, and laboratory experiments. 22 laboratory experiments are required.	90 minutes every day (2 class periods)	No formal assignment, but worksheets for review	At least 1 hour/night (Problem Solving, Facts & Memorization)	Skilled in math and writing; those students anticipating needing a college chemistry course (engineering, health or science related fields)
	AP Physics	Physics 1 or Honors Physics; Taking Calculus at the same time	Students learn to apply the laws of physics to solve difficult physics problems. Covers mechanics including, Newton's Laws, energy, momentum, rotation, gravitation & simple harmonic motion. Need a graphing calculator.	1 Class Period	Physics problems	An average of 45 min/ homework and prep for each class	Students who enjoy physics and want to improve the ability to apply math to solving problems
	AP Calculus AB	Pre-calc with Trig or Honors Pre-calc w/Trig	AP Calculus AB is an intensive study of the calculus of functions of a single variable. Calculus AB is primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations are also important. This course is comparable to one semester of college work. Students need a TI-89, TI-83, TI-83 plus, TI-84, or TI 84 plus calculator.	1 Class Period	Review of Algebra, Geometry, and Pre-Calculus material. It will probably take an average of 4 hours to complete. There will be a graded test on all prerequisite material during the 1st week of school.	An average of one to two hours of homework/preparation will be required for each class. There are also take-home quizzes, worksheets, and problem sets.	Students who have successfully completed Pre-Calculus with an A or B or have completed Pre-Calculus Honors with a B or C. Students should be prepared for the challenge of rigorous college coursework and for a much more rapid pace than they are used to.

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Math	AP Calculus BC	Honors Precal with Trig	AP Calculus BC is an intensive full-year study of the calculus of functions of a single variable including parametric and polar functions. In addition to the topics of limits, differential and integral calculus this course includes such topics as differential equations, polynomial approximations, and series. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The TI-89 is the preferred calculator, but the TI-83/84 or TI-83/84 Plus is	1 Class Period	Review of Algebra, Geometry, and Pre-Calculus material. It will probably take an average of 4 hours to complete. There will be a graded test on all prerequisite material during the 1st week of school.	An average of one to two hours of homework/preparation will be required for each class. There are also take-home quizzes, worksheets, and problem sets.	Students who successfully completed Pre-Calculus Honors with an A or B. Students should have a strong math background. Students should be prepared for the challenge of rigorous college coursework and for a much more rapid pace than they are used to.
	AP Statistics	Algebra II or Higher	Students will describe data using graphs, calculations and words; how to design and execute a study or experiment; students will learn the principles of probability; and they will learn how to make decisions using inference, based on the data they have collected and analyzed. Graphing calculator required.	1 Class Period	Review of basic statistical terms and concepts that most students have been exposed to in prior math classes. Assignment is due the first day of class and will be graded.	An average of about 1 hour of homework/preparation will be required for each class. Students will also do at least one project each quarter, problems sets and take-home tests.	Students who wish to challenge themselves in math, but chosen not to take Calculus. Students interested in social sciences, business, and medical fields. Students who can write clearly and concisely, prepare for a quick pace and challenge of college coursework.
	AP Computer Science	Computer Science or teacher approval	Builds and expands on the concepts learned in Computer Science. Programming methodology with emphasis on structured programming and top-down design will be reinforced. The fundamental algorithms and data structures of computer science will be closely examined. Applications will be used to develop student awareness of the need for particular algorithms and data structures.	1 Class Period	None	Practice programming, writing programming. At least 2.5 to 3 hours on the computer per week. An average of about 1 hour of homework will be required for each class	Students with a serious interest in computer programming.

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English	AP English Language and Composition	Success in English 10	Analytical reading, writing, and discussion of non-fiction works. Writing in expository, analytical, and persuasive formats. Intense multiple choice tests (with focus on comprehension and analysis of dense passages). Researched projects. Group and individual presentations.	1 Class Period	Non-fiction/ fiction book to be assigned	Long term independent projects and novels in addition to daily essays and readings	Highly motivated college-bound students who like to read and write, who seek to improve their writing ability, and who are willing to accept the challenge of college-level work
	AP Literature and Composition	Success in English 11 or AP Language and Composition	Careful reading and critical analysis of imaginative literature. Students should deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. Analytical and creative writing assignments will increase students' ability to explain what they understand about literary works and why they interpret them as they do. Writing instruction includes attention to developing and organizing ideas in clear, coherent and persuasive language as well as matters of correctness and precision.	1 Class Period	Reading of <u>Slaughterhouse Five</u> and "No Exit" is required. Students must write an essay on <u>Slaughterhouse Five</u> and take notes on No Exit. Additional assignments given in class.	One outside reading assignments per quarter. Students will also read three novels and one play per quarter. Be prepared to write on every major reading assignment. Completion of a research project/paper.	Students must be able to handle multiple assignments at once. Anyone who enjoys the challenge of reading, discussing and writing about literature should consider this course.
	AP Human Geography	None	Topics include culture (religion, language, ethnicity, and race), populations, fertility and mortality, immigration and migration, political organizations, agriculture and land use, cities and urban land use, industrialization and economic development.	1 Class Period	None	An average of one hour of preparation per class period plus one major project per quarter	Students who can handle extensive weekly reading and participate in class. Anyone who has considered geography or social sciences in general or has an interest in topics covered.

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Social Studies	AP World History	World History I or World Civ I	This course is designed to develop a greater understanding of the evolution of global processes and contacts in interaction with different types of human society. Students will be able to construct and evaluate arguments using historical evidence, use documents and other primary sources, develop the ability to assess issues of change and continuity over time, develop skills important to compare and contrast societies, and enhance their capacity to handle diversity of interpretations through analysis of context, bias, and frame of reference.	1 Class Period or Blocked with PreAP English 10	Review topics of World History I (Takes about 5 hours)	One hour of homework or prep each night. Each quarter will include 1-3 unit tests. Year long research paper.	Sophomores who would like a challenge, or any student genuinely interested in history.
	AP US History	World Civ I and II	Students will study the events of American history from discovery to the present and analyze these events and the primary source documents that describe them through a series of essay writings	1 Class Period	Yes - varies each year but generally involves research on first unit of study (exploration and colonization of North and South America).	Reading - about 3 to 4 chapters (70 to 100 pages) every two weeks. Note taking required. Test approx. every two weeks.	Students wishing to challenge themselves to master the analytical and writing skills necessary to be successful in college. Students who are interested in a fast-paced, in-depth look at the events which have determined the fate of our nation.
	AP Government	US History, 8th Grade Civics	There are six main units, including: I) Constitutional underpinnings/Federalism, II) Political Culture, III) Political Process (interest groups, elections, mass media), IV) Institutions of National Government (Congress, Presidency, Courts & Bureaucracy), V) Civil Liberties and Civil Rights, and VI) Public Policy. Class will include debates, Mock Congress, and other interactive components. Need access to a computer.	1 Class Period	Read the US Constitution online and complete a study guide	Approx. 30 mins preparing for each block period. Read 2 to 3 chapters every two weeks, followed by a test. Students will read a variety of articles and will need to stay aware of current events	All seniors interested in challenging themselves and who meet the pre-requisites.

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	AP Government and Comparative Politics	AP US History (suggested, not required)	Students will study and complete AP Government (see above course information) prior to Winter Break. Students will study and complete Comparative Government after Winter Break. This part of the course includes studying major concepts and themes in world politics. Students will take 2 AP Exams at the end of the year.	1 Class Period	Read the US Constitution online and complete a study guide. Also, students will read the constitutions of countries from Comparative politics and complete a study guide	45 minutes to one hour for each block period. Routine homework includes reading and completing study guides.	Students who have successfully completed AP US History with an interest in world affairs.
	AP Psychology	Junior or Senior status	Topics include topics such as developmental psychology, experimentation and the scientific method, intelligence, the interaction of psychology and biology, psychological perspectives, memory and learning, abnormal psychology, social psychology, intelligence, sensation and perception, and therapy.	1 Class Period	None	One hour of prep (extensive reading and homework) for each class period. One major project per quarter	Any student who has considered psychology as a college major, OR any student who wishes to challenge themselves and learn and discuss the interesting and applicable topics of psychology should consider taking this course.
	AP Spanish Language	Spanish I-IV or Spanish for Fluent Speakers I -III	AP Spanish is designed to be comparable to a college level Spanish course. The purpose of the course is to prepare the student for the AP Spanish exam	1 Class Period	Complete a range of multi-media assignments that review structures learned in earlier levels as well as improve student listening, speaking, writing, comprehension and vocabulary	Students can expect to regularly be reading, writing, listening, and communicating in Spanish. Students will have 1-2 tests per quarter, one composition/ speaking assessment per quarter, at least one quiz a week and written homework/ study per class is about 30 minutes.	All students who are planning to attend college and /or who want to widen their knowledge and abilities in Spanish should take AP Spanish Language

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Languages	AP French Language	French IV, French V or equivalent testing for native speakers	Students prepare the vocabulary, structures and skills necessary for success on the AP French Language exam in May. PLEASE NOTE this is NOT the same course as French 5. Students are expected to use French as their primary means of communication in this class and to consistently implement this level's new vocabulary while becoming more accurate grammatically. Additional venues exist for enrichment in the AP class, including the highly-rewarding buddy program with the 6th grade French immersion students.	1 Class Period	Complete a range of multi-media assignments that review structures learned in earlier levels as well as improve student listening, speaking, writing, comprehension and vocabulary	One to two tests per quarter, one composition/ speaking assessment per quarter, at least a quiz a week; written homework/study per class averages about 25-35 minutes	All upper-level French students who are planning to attend college and/or who want to widen their knowledge and abilities in French
	AP Latin	Latin I-III	Students will prepare and translate selections from Vergil's Aeneid. While reading the epic, students will discuss and analyze it as literature in its cultural context. To prepare for the AP exam, students will also read passages of Latin at sight, study Latin metrics, and rhetorical devices in the works. Grammatical structures are reviewed throughout the year.	1 Class Period	Students will read a translation of the Aeneid (I recommend Stanley Lombardo's or David West's). They will then write an outline on a major theme in the Aeneid (like fate) and summarize some characters from the Aeneid.	Students will prepare translations for each class. At the start of the year, this may take longer (ca. 1 hour), but this time quickly shortens as the quarter progresses and students get used to Vergil's style. There are frequent quizzes (translation of a few lines we have covered); essay outlines are composed (as opposed to writing out full length essays). Tests are modeled on the AP exam- multiple choice questions and a short essay.	Students with a strong grammatical base and a willingness to translate should take AP Vergil.

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Fine Arts	AP German Language	German IV, V, (or equivalent testing for native speakers)	Students prepare the vocabulary, grammatical structures and speaking and listening skills necessary for the AP German exam in early May. Please note: this is not the same as German IV or V. Topics addressed include (but are not limited to): Biografie, Reisen, Tiere, Modernes Leben, Umwelt, Anekdoten, Gesundheit, Einkaufen, Gesellschaft, und Schule. Students are expected to use German as their primary language of communication and implement this level's new vocabulary and structures. AP German students will be in a combined class with German IV and German V students. They will be expected to work independently at times.	1 Class Period	There is a range of multi-media assignments that review structures learned in earlier levels as well improve student listening, speaking, writing, comprehension and vocabulary. Additionally, students will be keeping a summer journal in German. Please see the AP German teacher for specific requirements before leaving for summer vacation.	One to two tests per quarter, one composition/ speaking assessment per quarter, at least a quiz a week; written homework/study per class averages about 25-35 minutes	All students who are planning to attend college and/or who want to widen their knowledge and abilities in German. Additionally, students must be highly motivated and self-directed learners.
	AP Music Theory	Significant experience reading or performing music; Experience taking music lessons or participating successfully in HHS music programs.	Music theory is the intense study and analysis of western music. Students will master the use of harmony, rhythm, pitch, and texture. Students will gain the listening skills to identify intervals, chords, and rhythms upon hearing them. Students will learn to extract, by listening, the components of music composition.	1 Class Period	Practice mastering all major scales	30 to 90 minutes of homework following most classes	Experienced musicians who love music and do not mind practicing music skills through homework assignments
	AP Studio Art Photography	Photography 2	Designed for students who have demonstrated outstanding capabilities in expressing themselves through photography, show a high degree of commitment to communicating through art, and maintain the attitudes and self-discipline of a working artist. Students should own a 35mm film and/or digital camera capable of at least 4 megapixel photos.	1 Class Period	Series of shooting assignments and visit and critique at least one photography exhibition - due first week of school	An average of 2-3 hours weekly of shooting photographs and project work outside of regular classroom hours.	Students who have a love of photography and have demonstrated art skills should consider this course. Students should also have a commitment to creating art in a timely and disciplined manner.

	Course Title	Course Pre-Reqs	Description	Course Meets	Summer Assignment	Work Load	Who Should Take It?
	AP Studio Art 2D Design / AP Studio Art 3D Design / AP Studio Drawing	Art 2	This course is designed for students who have demonstrated outstanding capabilities in expressing themselves with art media, show a high degree of commitment to communicating through art, and maintain the attitudes and self-discipline of a working artist.	1 Class Period	Series of sketches and drawings in response to art questions	Average of 2 to 3 hours weekly of sketches and project work.	Students with a love of art and demonstrated art skills. Those who are committed to producing art in a timely and disciplined manner should take this course.