

The Columbus Academy

UPPER SCHOOL CURRICULUM



Curriculum Guide for Grades 9 through 12

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GRADES 9 THROUGH 12

Mission Statement

The Columbus Academy

The Columbus Academy - an independent, coeducational, college preparatory school - enriches its academic tradition of excellence by valuing a broad diversity of students, as it seeks to develop the complete person - mind, body and character. The School rewards rigorous effort and accomplishment; fosters compassion, respect and moral courage; and insists on integrity, fair play, and community service. The Academy strives to develop and sustain a community of thoughtful, responsible, capable and confident citizens eager to engage in a pluralistic and ever-changing world.

DIVERSITY STATEMENT: The Columbus Academy aspires to be an inclusive community where all differences consistent with the mission of the school are valued, respected, and integrated into the educational process.

Non-Discrimination Policy: The Columbus Academy encourages and welcomes applications from families without regard to race, creed, religion, national origin, or sexual preference and does not discriminate in the administration of its educational policies, financial aid program, and school administrated extracurricular programs.

GRADUATION REQUIREMENTS

Twenty credits are required to graduate. The following credits are part of the graduation total:

- 4.....credits of English
- 3.....credits of Mathematics (must complete at least through Algebra 2)
- 3.....credits of a single Foreign Language or two credits of two Foreign Languages
- 3.....credits of History: World History, World History 2, and Studies in United States History
- 3.....credits of Science: Biology, Chemistry and Physics
- 1.....credit of study in the Fine Arts or Performing Arts

All students must take a minimum of 5 credits in core courses per year.

In addition to the graduation requirements outlined above, students must satisfactorily complete the following in order to receive an Academy diploma: Health, 6 units of Physical Education, the Junior Speech, the Senior Project, Summer Reading Requirements, and the Community Service Requirement (50 hours). All full credit courses taken in the senior year must receive a passing grade.

ENGLISH DEPARTMENT (4 Credits Required)

ENGLISH 9: Elements and Function of Narrative (Full Year, 1 Credit) ENG9

The ninth grade year focuses on stories from around the world. Students will be exposed to short stories, novels, poetry, and drama. Students will be asked to demonstrate their comprehension by describing and discussing the elements of literature (i.e. setting, plot, and character), analyzing the author's use of language (i.e. figurative language), comparing and contrasting styles, inferring theme and meaning and responding to texts in critical and meaningful ways. Students will write narrative, compare and contrast, descriptive, and informational forms with an emphasis on literary analysis. Formal, informal, and timed writings will be assigned in response to literature and to writing prompts. Within the writings, students will draw conclusions, collect evidence to support their conclusions, evaluate their evidence, and articulate the relationship between their evidence and their conclusions. Vocabulary, grammar, reading, and visual literacy skills will be correlated with the study of literature and in preparation for standardized testing.

ENGLISH 10: Border Crossings (Full Year, 1 Credit) ENG10

Studying geographical and philosophical border crossings, students will examine stories that show characters grappling with an existence in two cultures – the tensions and challenges that can arise. A student-selected text related to the theme of this course will be the basis of a research project. Readings will reflect a variety of literary genres, including non-fiction, fiction, poetry, and drama. Students will utilize various critical approaches and reading strategies when examining important authors and themes. Emphasis, when reading, will be placed on analysis, interpretation, and

explanation, which also will be the foundation for the writings. Building upon the critical analysis skills introduced in English 9, formal, informal, and timed writings will be assigned in response to literature and to writing prompts. Students will draw conclusions, collect evidence to support their conclusions, evaluate their evidence, and articulate the relationship between their evidence and their conclusions. Vocabulary, grammar, reading, and visual literacy skills will be correlated with the study of literature in the preparation for standardized testing.

ADVANCED ENGLISH 10: Border Crossings (Full Year, 1 Credit) AENG10

Like English 10, Advanced English 10 takes its focus from a consideration of geographical and philosophical border crossings. The texts show people grappling with the challenges of simultaneously belonging to two or more cultures. This course shares its structure and assignment types with English 10, while requiring some more challenging readings and a greater emphasis on the act of storytelling as a means of structuring and shaping experience. Readings will be drawn from a number of literary traditions and a variety of literary genres, including non-fiction, fiction, poetry, and drama. The course emphasizes close reading skills as a foundation for analysis and seeks to deepen critical thinking skills in relation to the readings while encouraging an understanding of how those skills can be applied to the texts we encounter daily. Building upon the critical analysis skills introduced in English 9, formal, informal, and timed writings will be assigned in response to literature and to writing prompts, as well as in the vocabulary units. **Prerequisites: final grades of A- or higher in English 9 and faculty recommendation**

ENGLISH 11: American Literature (Full Year, 1 Credit) ENG11

Through a study of American literary history, students will explore the development of a national literature as it shapes and is shaped by the culture from which it arises. Readings will encompass the rich variety of texts that have formed American literature since its origins in the texts of European contact, while units will be organized around predominant themes that have emerged in and influenced the literature's development. The development of reading skills will emphasize analysis, interpretation, and explanation, and those skills will also form the foundation for the writing assignments. Formal, informal, and timed writings will be assigned in response to literature and to writing prompts. Vocabulary, grammar, reading, and visual literacy skills will be correlated with the study of literature and in preparation for standardized testing.

HONORS ENGLISH 11: Honors American Literature (Full Year, 1 Credit) HENG11

This course is a historical survey of American Literature that serves to prepare students for the Advanced Placement Literature and Composition Examination given each spring. In addition to a selection of important literary works ranging from the colonial period to today, students read a selection of relevant non-fiction works—essays, criticism, aesthetic manifestoes, to name a few. Particular attention will be paid to reading critically and writing clearly under the pressure of time as preparation for standardized tests. **Prerequisites: final grades of 90% or higher in Regular English 10 course or an 80% or higher in Advanced English 10 and permission of the department.**

PUBLIC SPEAKING (One Semester, 1/4 Credit) PUB

Public Speaking, a required course for juniors, introduces students to various techniques of oral expression. Each student learns to overcome natural fears and speak with relative ease, clarity and organization. Enunciation, expression, eye contact, volume, poise, and the content of each presentation are evaluated. A formal speech, delivered to the Upper School and parents, fulfills a graduation requirement and upholds one of Columbus Academy's oldest traditions.

ENGLISH 12: Stories of a Life (Full Year, 1 Credit) ENG12

English 12 is a course that seeks to refine the language skills—critical reading, media literacy, analytical writing—of college-bound seniors through encounters with compelling texts from a range of media. English 12 consists of a series of three major units focusing on narrative patterns: the Quest, which focuses on the personal challenges and opportunities for growth afforded by quests and other types of journey; the Family, which focuses on the individual as a member of a literal or figurative family; and the Rugged Individual, which focuses on the traditional attributes of the ancient and contemporary hero. In the fourth quarter, students will engage in a significant individual project that tells the story of a life through a range of media—biography, memoir, film, performance, or photography. This course will offer challenging and engaging texts that will stimulate student thinking about individual and societal values. There will be formal writing assignments ranging from literary analysis to personal narrative.

HONORS ENGLISH 12 (Full Year, 1 Credit) HENG12

Students complete close readings of representative works from various genres and periods. Paper assignments require a critical analysis of text and a stipulation that students practice editing their own writing as they progress through several drafts of essays. The first semester's assignments in exposition require four-six short papers of two-three pages each. Students complete a research paper, using the MLA guide in the third quarter. Required for all drama study is student collaboration for enacting selected scenes. Students conclude the second semester engaged in a final project. Students work to refine their writing skills and to increase their vocabulary not only to facilitate their reading, but also to add depth to their writing and to prepare for standardized tests.

Prerequisites: A final grade of 90% or higher in the Regular English 11 course or an 80% or higher in Honors English 11 and department permission.

CREATIVE WRITING (Full Year, 1/4 Credit) CREATE

The Creative Writing courses meet during “zero” period and provide a formal means for students to practice the craft and discipline of writing outside the traditional academic class structure. The emphasis is on providing support and incentive for focusing on writing as an art and craft and to allow students to practice and develop their skills at writing, at responding to others' writing, and at incorporating others' feedback into their work. Sections meet with the instructor once a week and with smaller workshop groups once a week. Classes focus on writing prompts and discussion; workshops provide a writing community in which students alternate in presenting works for critique by the group. In Creative Writing 1, the students develop a portfolio. In Creative Writing 2, the course is structured so that students spend the year proposing, outlining and developing a longer, sustained piece (or collection) of writing.

JOURNALISM (Full Year, 1/4 Credit) JOURNAL

Journalism 1 (Beginning), 2 (Intermediate), and 3 (Advanced) are offered during zero periods (Tuesdays, Thursdays, and Fridays, respectively). Students in Journalism 1 study leads for opinions and news in *The New York Times* and other leading newspapers. In the Fall of 2008 journalism students focused on David Brooks, Maureen Dowd, and George Will to recognize different views on the same topic. This class studies dominant photos on hard copies and refers to a site for front-page newspapers around the nation. Journalism 1 students learn InDesign and produce a mock newspaper. Journalism 2 students have taken Journalism 1 and learn how an editorial is composed. Journalism 2 students begin writing articles for *The Academy Life*. Journalism 3 students decide which articles to cover, write for every issue of the paper, and compose the editorial. The co-editors lay out the paper.

FINE AND PERFORMING ARTS DEPARTMENT **(1 Credit Required)**

FOUNDATIONS OF STUDIO ART (Full Year, 1/2 Credit) **FSTDART**

In this course, students study the formal elements and principles of design and composition as well as selected artists and styles. **Foundations of Studio Art is a prerequisite for most Fine Arts courses.**

2-D STUDIO ART (Full Year, 1/2 Credit) **2DSTDART**

This studio-based course explores the techniques, composition, and content of drawing and painting. Students study past and contemporary artists' works and become acquainted with a variety of drawing materials and opaque and transparent painting mediums. Students are asked to express growth and individuality through their use of materials. Keeping an up-to-date, high-quality personal sketchbook is a requirement. **Prerequisite: Foundations of Studio Art**

CERAMICS (Full Year, 1/2 Credit) **CER**

This course covers all basic clay handling and firing techniques. Hand-building provides the opportunity to become familiar with the properties and the potential of clay. First semester students create hand-built projects using coil, slab, and “waddie” construction techniques. Throwing on the potter’s wheel, advanced firing processes, and glaze chemistry are introduced in the second semester. **This Course is available to Sophomores, Juniors, and Seniors.**

CRAFTS/TEXTILES (Full Year, 1/2 Credit) **CRAFT**

This studio course explores both the traditional and contemporary approaches to the decorative arts. Students may work in any of the following methods: fused glass, hand-made paper and books, jewelry, stained glass, fabric ornamentation, precious metal clay, and/or a combination of several media to produce functional pieces of art. **Prerequisite: Foundations of Studio Art**

GRAPHIC DESIGN (Full Year, 1/2 Credit) **GRAPH**

This course introduces students to the art of visual composition, communication, and presentation. Students will create symbols, images, and/or words to represent ideas or express messages. PhotoShop and InDesign will be used to learn the importance and art of typography, page layout, and visual expression. **Prerequisite: Foundations of Studio Art**

PHOTOGRAPHY (Full Year, 1/2 Credit) **PHOTO**

Photography students learn about the various types of film and digital cameras, and how to control composition and exposures to produce excellent images. The emphasis will be on capturing images digitally and manipulating them through the use of Photoshop. Some black and white darkroom work will be introduced as time and interest allows. **Prerequisite: Foundations of Studio Art**

ADVANCED PHOTOGRAPHY (Full Year, 1/2 Credit) **APHOTO**

Students in their second or third year of Photography are encouraged and expected to develop a body of images that demonstrates a high level of originality, technique, and personal vision. This advanced level course emphasizes creative thinking and a desire to work independently on projects developed by the individual student. **Prerequisite: Foundations of Studio Art and at least one year of Photography**

SCULPTURE (Full Year, 1/2 Credit) **SCULPT**

The emphasis in this studio course is on the unique qualities of sculpture, including its three-dimensional and tactile nature. Assignments focus on specific realistic and/or abstract problems. The work of well-known artists is studied in order that the students see both the practical and the creative aspects of sculpting. **Prerequisite: Foundations of Studio Art**

PORTFOLIO ART (Full Year, 1 Credit) **PORT**

This course provides opportunities for intense studio experiences and portfolio development and for participation in local and statewide competitions. Students meet daily and must be self-motivated as the workload is demanding, and the deadlines are strictly enforced. Upon electing to take this class, students declare a major area of study. **This course is available to Juniors and Seniors only. Prerequisite: Previous art experience and the recommendation of the instructor.**

VIKING CHOIR (Full Year, 1/2 Credit) **VCHOIR**

Viking Choir is a class that emphasizes four basic areas of study: performance skills, rehearsal skills, vocal skills, and musicianship. It meets 3 days of a 6-day rotation. Performances include two major concerts, OMEA competitions, and community performances.

CAMERATA (Full Year, 1 Credit) **CAMERATA**

Camerata emphasizes four basic areas of study: performance skills, rehearsal skills, vocal skills, and musicianship. Camerata focuses more intensely than Viking Choir on music theory and the development of sight-reading skills. Students meet daily to prepare for two major concerts and OMEA Solo, Ensemble, and Large Group competitions.

ACADEMY CONCERT BAND (Full Year, 1 Credit) **BAND**

The Academy Concert Band is open to students whose playing ability is equivalent to that of an average 8th grade band student. An audition may be requested to determine the student's proficiency. The Concert Band performs in at least three required concerts, which may include OMEA District Contest for Large Group as well as the OMEA Solo and Ensemble Contest. Attendance at all Pep Band events is required unless a scheduling conflict prevents attendance.

ACADEMY JAZZ BAND (Full Year, 1/2 Credit) **JAZZ**

The Academy Jazz Band offers students an opportunity to explore the Jazz experience in both performance and musicianship. More advanced instrumental experience is strongly recommended for this course, and an audition may be required for certain instruments. Students perform in a number of settings, including All That Jazz, a Fall concert, and various festivals around Columbus. Although this course is open to Freshmen, a full year of Concert Band is highly recommended. Jazz Band is considered to be an Honors level course and requires a moderate amount of home practice.

ACADEMY STRINGS ORCHESTRA (Full Year; 1/2 Credit) **ORCHESTR**

Academy Strings Orchestra is open to students in grades 9 through 12. An audition may be requested to determine the student's proper placement. This class will focus on repertoire for contemporary high school orchestras including music from pop, rock, and jazz venues. Performances include at least three major concerts, OMEA solo and ensemble competition, and community concerts. Students are assessed regularly on individual improvement and performance.

ADVANCED STRINGS ORCHESTRA (Full Year; 1/2 Credit) AORCHEST

Advanced Strings Orchestra is open to students in grades 9 through 12. An audition may be requested to determine the student's proper placement. This class will focus on chamber music from classical and contemporary periods. Performances include at least three major concerts, OMEA solo and ensemble competition, and community concerts. Students are assessed regularly on individual improvement and performance. **Recommendation required.**

MUSIC THEORY (Full Year, 1/2 Credit) MUT

The first year of Music Theory introduces the fundamentals of music including, but not limited to, notes, rhythm, intervals, chords, aural training, and voice leading. At the end of the course, students will be able to analyze music written in four-part harmony (Bach-style) as well as compose their own four-part harmonic pieces.

HONORS MUSIC THEORY (Full Year, 1/2 Credit) HMUT

The second year of Music theory continues to build upon the fundamentals of music. Areas of study include voice leading, harmonic progressions, cadences, modal writing, advanced analysis, and advanced aural training. Students may be asked to take an entrance exam to be admitted to Honors Music Theory. At the end of this course, students will take the AP Music Theory Exam. This is an Independent Study course, ideally meeting 3 times per week, either during the school day, before or after school, or a combination of the two. **Prerequisite: Music Theory**

PORTFOLIO TECHNICAL THEATER (Full Year, 1 Credit) PORTTECH

This class is for students looking for a deeper understanding of "the other side of the stage", characterization, and direction. This is an Independent Study course that will allow students who are interested in theater to further their studies within a specific field. Each student will take on the responsibility of designer for each Columbus Academy production. The specific field or interest (lighting, scene, makeup, or props), will be decided by the student and instructor. The final project will be a ten-minute DVD showcasing each individual's work within his or her field of interest that can be used for college entrance applications. **Prerequisite: Recommendation of the instructor**

ART HISTORY (Full Year Elective, 1 Credit) ARTHIS

This course is a survey covering two and three-dimensional art forms and architecture from prehistory to the present. The vision and record of artists and designers are emphasized. At its conclusion, students should have a greater appreciation for creative personal expression and be prepared to look at art insightfully. *Art Across Time* (Adams) is the primary text, and slides and supportive studio exercises compliment classes. Independent study offers the opportunity for students to consider taking the Advanced Placement Examination.

FOREIGN LANGUAGE DEPARTMENT

(3 Credits Required - Single Foreign Language)

or

(2 Credits Required - Two Foreign Languages)

CHINESE 1 (Full Year, 1 Credit) CH1

Chinese 1 is an introductory course in Mandarin Chinese with an emphasis on the development of the four critical language skills: reading, writing, speaking, and listening. Because Mandarin Chinese

is a tonal language, accurate pronunciation is stressed. Memorizing Chinese characters is also emphasized. Role-playing, learning games, and various projects are added to bring energy to the classroom. Chinese history and geography are also introduced. The student's experience is enriched by cultural activities including calligraphy, crafts customs, food, folklore and music.

CHINESE 2 (Full Year, 1 Credit) CH2

Chinese 2 is the second year of study in our Mandarin Chinese program with an emphasis on the continued development of the four critical language skills: reading, writing, speaking, and listening. Student vocabularies continue to expand, and so do the topics of conversation as complicated sentence structure is introduced. A wide range of supplementary reading material is provided, including short stories, poems, idioms and newsprint, Chinese cartoons and philosophy. Cultural activities are also emphasized.

CHINESE 3 (Full Year, 1 Credit) CH3

Chinese 3 is the third year of study in our Mandarin Chinese program. This course is designed to expand students' vocabulary and grammatical structures. Students are expected to converse in Chinese on a broad range of topic areas, to comprehend short stories in oral and written form, to write short essays, and to make presentations in Chinese. Research projects relating to culture, history, literature, and current events further enrich the language study.

CHINESE 4 (Full Year, 1 Credit) CH4

This course is designed for students who have completed the foreign language requirement and wish to build on their Chinese language proficiency and cultural understanding. The students will expand their vocabulary and grammar structures while integrating five skills: listening, reading, speaking, writing and character recognition through typing. Taught completely in Chinese, the content includes current issues, idioms, literature, and cultural topics in the target language. The materials include films, songs, online materials and news. **Prerequisite: A final grade of C+ or higher in Chinese 3 and/or faculty recommendation**

HONORS CHINESE 4 (Full Year, 1 Credit) HCH4

Honors Chinese 4 is a Pre-Advanced Placement course that is in alignment with the Advanced Placement format. The course is designed for students who are interested in pursuing higher language proficiency in listening, speaking, reading, writing and character typing skill. Taught completely in Chinese, the students will honor the language pledge. The course focuses on the language through the lens of Chinese culture. Honors Chinese 4 emphasizes the development of cohesive writing skills through the building of rich vocabularies and complex sentence structures. Course materials include idioms, tang and song poems, classics reading, current issues, cultural topics, films, and pop culture in the target language. Communicating with the exchange students in Hefei, China through email is included as one of the learning objectives. **Prerequisite: A final grade of A- or higher in Chinese 3 and/or faculty recommendation and approval of the department chair**

CHINESE 5 (Full Year, 1 Credit) CH5

Advanced Chinese 5 is designed as a natural sequence to Advanced Chinese 4. The course consists of extensive communicative drills, the study of complex sentence patterns and grammar, and reading and writing. The class is conducted in Chinese and uses natural tones and speed for listening comprehension. The textbook is of an intermediate level, and the students are able to maintain their language skills and make transition to a mid-second year college course. The students are introduced

to formal written language and they keep up with Chinese current issues with authentic materials. By the end of fifth year Chinese, most of Chinese language students will have the language immersion experiences from our exchange program.

HONORS CHINESE 5 (Full Year, 1 Credit) HCH5

Honors Chinese 5 consists of intense speaking drills, the study of complex sentence patterns and grammar, advanced reading, and advanced writing. The class is conducted in Chinese and uses a college textbook and authentic materials and is on an upper intermediate level. Activities include debating, campaign speeches, presenting career choices, and discussing cultural topics. Students are introduced to formal written language and they keep up with Chinese current issues. Upon completion, students will comfortably transition to a late-second or third year college course. By the end of fifth year Chinese, almost all Chinese language students will have taken a trip to China and will have benefited greatly from participating in the exchange program. This course also prepares students to take the Chinese Advanced Placement Examination.

LATIN 1 (Full Year, 1 Credit) LATIN1

Latin 1 stresses reading and translation, the mastery and pronunciation of Latin vocabulary, basic grammatical structures, the building of a stronger English vocabulary and grammar through study of the relationship of the two languages, and an introduction to ancient mythology and Roman history. It acquaints students with study and organizational skills, and with the precision and daily discipline that will facilitate the learning of other languages.

LATIN 2 (Full Year, 1 Credit) LATIN2

Latin 2 is a continuation of Latin I with the general philosophy remaining unchanged: reading Latin with confidence, providing insight into Roman culture, and improving English skills through the study of Latin. Greater attention is paid to sustained reading with emphasis on more sophisticated grammatical and syntactical structures. In addition, the content of the stories and the cultural material are used as a basis for oral discussion stressing the comparisons and contrasts between the elements of ancient Roman society and today's society. **Prerequisite: Latin 1**

LATIN 3 (Full Year, 1 Credit) LATIN3

Latin 3 is an introduction to Latin prose with an emphasis on the variety of Roman prose styles. After the completion of the most complicated aspects of Latin grammar, students read works by Pliny, Caesar, Cicero, and other classical Latin authors. These authors are read with consideration for and attention to the cultural and political milieu in which they wrote. **Prerequisite: Latin 2**

LATIN 4 (Full Year, 1 Credit) LATIN4

Latin 4 is a course that offers an intensive study of Latin poetry with an emphasis on Vergil's *Aeneid*. Although the pace of this course is advanced, it does not cover the Advanced Placement syllabus. Other poets, such as Catullus, Horace, and Ovid, will be introduced, as well as the techniques and meter specific to their works. This class allows students to investigate other authors and to develop further proficiency in Latin. **Prerequisite: Latin 3 and faculty recommendation**

HONORS LATIN 4 (Full Year, 1 Credit) HLATIN4

Honors Latin 4 is course that offers an intensive study of Vergil's *Aeneid*. Students who take this class will read, in Latin, Books 1, 2, 4, 6, 10, and 12. They will read the entire epic in English. Students will concentrate on acquiring knowledge of the meter of Latin epic poetry and the literary conventions of classical poetry. By reading this syllabus, students are prepared for the Vergil

Advanced Placement Examination in May. **Prerequisite: A final grade of A- or final exam grade of at least a B+ in Latin 3 or faculty recommendation**

HONORS LATIN 5 (Full Year, 1 Credit) HLATIN5

Honors Latin 5 is a seminar-style class designed for students who have completed the four-year Latin program. The course consists of critical reading and evaluation of literary works. Grammar is thoroughly reviewed. Emphasis is placed on lyric poetry, philosophy, and comedy. **Prerequisite: Latin 4 or Honors Latin 4**

SPANISH 1 (Full Year, 1 Credit) SP1

In Spanish 1, students are given the vocabulary and grammar tools necessary to express themselves in everyday communicative tasks using both the present and past tenses. Emphasis is put on the basic language skills of reading, writing, speaking, and listening, and on the principles embodied in the five C's of foreign language: communication, cultures, connections, comparisons, and communities. This course is designed for the student with no previous knowledge of the language; it can, though, also be used as a review of Spanish studied previously.

SPANISH 2 (Full Year, 1 Credit) SP2

Spanish 2 is a continuation and expansion of the vocabulary and grammatical structures learned in Spanish 1. Students will be able to communicate in all language skills utilizing the present and past tenses as well as the subjunctive to express desires, doubt, and emotions. Spanish 2 is taught in the target language and students participate in conversations, discussions, and oral exercises, and writing exercises. The students are exposed to authentic materials such as news articles, music, television commercials, soap operas, as well as literary selections like poetry and short stories. Students will be expected to achieve a certain level of proficiency to be able to continue to either Spanish 3 or Advanced Spanish 3. **Prerequisite: Spanish 1**

SPANISH 3 (Full Year, 1 Credit) SP3

This course is designed to develop and refine proficiency in all four language skills. Conducted entirely in Spanish, it includes grammar review, vocabulary development, and engages students in communicative exercises. Reading materials include a selection of contemporary articles as well as literary and cultural texts. Reports and oral presentations strengthen understanding of the target language. This course completes the foreign language graduation requirement. **Prerequisite: A final grade or final exam grade of at least a C in Spanish 2 or faculty recommendation.**

ADVANCED SPANISH 3 (Full Year, 1 Credit) ASP3

This course is designed to develop and refine proficiency in all four language skills. Conducted entirely in Spanish, it includes grammar review, vocabulary development, and engages students in communicative exercises. Reading materials include a selection of contemporary articles as well as literary and cultural texts, such as the stories of Garcia Marquez, a Nobel Prize winner in 1982. Reports and oral presentations are used to strengthen understanding of the target language. This course not only completes the foreign language graduation requirement; it is also designed to prepare students for standardized national foreign language testing. **Prerequisite: A final grade or final exam grade of at least A- in Spanish 2.**

SPANISH 4 (Full Year, 1 Credit) SP4

Spanish 4 is designed for students who are interested in increasing their language proficiency in order to study literature and culture in the target language. Grammar, writing, speaking, and reading

are an integral part of the course. In addition, students will develop insights into their own language and culture as they make cultural comparisons with Spanish-speaking people and their culture through the study of literary readings, music, and film. Students will continue to develop sensitivity to the cultural and linguistic heritage of other groups, understand their influence on American culture, and become prepared to participate in a society characterized by linguistic and cultural diversity. **Prerequisite: A final grade or final exam grade of at least C+ in Spanish 3 and faculty recommendation**

HONORS SPANISH 4 (Full Year, 1 Credit) HSP4

Honors Spanish 4 is a Pre-Advanced Placement course that is in alignment with the Advanced Placement format. The course is designed for students who are interested in pursuing higher language proficiency in listening, speaking, reading, writing and character typing skill. Students will communicate with native speakers, write about selected literary topics, and discuss current events and personal issues with relative ease. Taught completely in Spanish, this course also includes a review of advanced Spanish grammar. After completing extensive reading, students will produce written projects and oral reports. Honors Spanish 4 is designed for students interested in taking the Spanish Language Advanced Placement Examination in the following year. **Prerequisite: A final grade of at least B+ in Advanced Spanish 3 and/or faculty recommendation and approval of the department chair**

SPANISH 5 (Full Year, 1 Credit) SP5

Spanish 5 is designed as a continuation and expansion of Spanish 4. It is a course for students not interested in taking, or ready to take, the Advanced Placement Examination who desire to develop further knowledge of Spanish grammar, vocabulary, and conversation skills in the context of a broad study of Spanish history and culture. Special emphasis is placed on current events and cultural developments in film, art, and literature. At this level, research papers, reports, and oral presentations integrating technology are important ways of developing the students' presentation skills, cultural awareness, and language proficiency. **Prerequisite: A final grade or final exam grade of at least C+ and faculty recommendation.**

HONORS SPANISH 5 (Full Year, 1 Credit) HSP5

This intense course is intended to prepare students for the Advanced Placement Examination. Students at this level are studying a course equivalent to a third-year college course in advanced Spanish composition and conversation. According to the College Board standards, this course emphasizes the use of Spanish for active communication, and it encompasses aural/oral skills, reading comprehension, grammar, and composition. The overall objectives are: to comprehend formal and informal spoken language, to acquire vocabulary and a grasp of structure to allow the easy and accurate reading of newspaper/magazine articles and modern literature in Spanish, to compose expository passages, and to express ideas orally with accuracy and fluency. This course also seeks to develop language skills that are broadly useful and that can be applied to various activities and disciplines. **Prerequisite: A final grade of at least B+ in Honors Spanish 4 and/or the approval of the department chair.**

HISTORY DEPARTMENT **(3 Credits Required - 1 Each in World, U.S., and Modern)**

WORLD HISTORY 1: Through 1492 (Full Year, 1 Credit) WORLD

World History 1: Through 1492 is a year-long course that thematically examines the development of human populations from early organizational units (Neolithic) to the advent of civilizations and diversification of human systems and interactions. In this course, students study the development of social, economic, religious, and political systems with an emphasis on the role of environment in determining and affecting the evolution of groups, communities, cultures, and civilizations. World History 1: Through 1492 also examines topics such as innovation and technological change and its impact on influencing cultural development. The scope of study concludes with the acknowledged infancy of the global interaction of civilizations represented by the voyages of Columbus in 1492.

WORLD HISTORY 2: 1492 to Present (Full Year, 1 Credit) WORLD

This year long course will continue to thematically examine the development of humans and their systems from the advent of global interaction to the present day. The course will analyze the development of increasingly complex and sophisticated social, economic, political, and religious systems. Environment will continue to play a fundamental role but interactions between cultures will increasingly drive the innovations and actions of peoples throughout the world. The course will examine the roots of the major ideologies of the present: democracy, socialism, capitalism, imperialism, and globalism and seek to understand and relate these driving forces to the lives that we lead.

HONORS WORLD HISTORY 2: 1492 to Present (Full Year, 1 Credit) WORLD

This year long course will continue to thematically examine the development of humans and their systems from the advent of global interaction to the present day. The course will analyze and view the increasingly sophisticated and complex development of social, economic, political, and religious systems. Environment will continue to play a fundamental role but, increasingly, interactions through processes such as assimilation, conflictual and consensual cultural interaction, technological shifts, and evolutionary and revolutionary change will drive the innovations and actions of peoples throughout the world. The course will examine the roots of the major ideologies of the present: democracy, socialism, capitalism, imperialism, and globalism and seek to understand and relate these driving forces to the lives that we lead. This course is a more rigorous version of the regular World History 2 course, and will prepare students who choose to take the Advanced Placement World History Examination in May.

STUDIES IN UNITED STATES HISTORY (Full Year, 1 Credit) US

This required course for eleventh grade students is taught within a chronological framework, with special emphasis on themes such as American identity, the growth of democracy, civil rights and liberties, economic development, the environment, the impact of technology, cultural diversity, the individual and society, the influence of religion, and the U.S. role in world affairs. The course requires students to explore divergent viewpoints, encourages them to evaluate these viewpoints, and then develop informed opinions of their own by examining various historical perspectives, including the arts, literature, and cultural artifacts of the time. The development of critical thinking and writing skills is emphasized, and the successful completion of a research paper is a course requirement.

HONORS UNITED STATES HISTORY (Full Year, 1 Credit) HUS

This course is designed to prepare students for the Advanced Placement Examination. A rigorous, college-level course, Honors U.S. History is a chronological survey that addresses the themes, issues, and causal relationships of U. S. History. The course focuses on primary source documents of U.S. History and their interpretation; historiography and the issues of revisionist history; and the impact of the past on the present. A primary focus of this course is the ability to organize and write essays clearly and concisely.

ECONOMICS (Full Year Elective, 1 Credit) ECON

Economics gives senior history students a thorough understanding of the principles of economic systems. The course places particular emphasis on the study of national income and price determination, and develops the students' familiarity with economic performance measures, economic growth, and international economics. The course is designed to prepare students for the Advanced Placement Examination in Macroeconomics. Textbook readings, primary source readings, simulations, group projects, and individual problem-solving activities are used to build understanding. In addition, short papers on current topics and a presentation on a selected topic are required.

HONORS COMPARATIVE GOVERNMENT (Semester Elective, 1/2 Credit) HCGOV

This course is designed to study the major political and governmental systems that are presently prominent in the world. Included is an in-depth exploration of comparative politics examining the political framework and structures of government in countries and how these countries adapt to change politically, socially, and economically. The course examines sources of political power. Six countries are the basis for this exploration: China, Russia, Great Britain, Iran, Nigeria, and Mexico. Students are prepared to sit for the Advanced Placement Examination in May.

HONORS U.S. GOVERNMENT AND POLITICS (Semester Elective, 1/2 Credit) HUSGOV

This course is designed to survey the United States federal government and political systems. An examination of the philosophical underpinnings of the constitutional system is combined with the historical development and current trends of the institutions and systems. Primary focus is placed on the national level, with a brief examination of local and state systems and how they function, complement, and interact within the federal system, as well as how their governments differ from the national government. Students are prepared to sit for the Advanced Placement examination in May.

ADVANCED TOPICS IN GOVERNMENT (Full Year Elective, 1/2 Credit) ATGOV

This “zero” period course is an in depth seminar study of contemporary global issues. Race in Contemporary Society, Mother Nature vs. Man, Terrorism, and Development Economics are a few of the topics that will help form the body of the class. Students are required to complete, and defend before a committee, a year-long research project relating to one of the topics discussed in class.

CENTRAL AMERICAN HISTORY (Semester Elective, 1/2 Credit) CENTRAL

Central American History is a survey course that will explore Central American history since the pre-Hispanic era to the modern era. After briefly becoming familiar with the pre-Hispanic civilizations and its legacy, the course will examine the conquest and colonization, moving on to the processes and political movements that led to the creation of independent states after centuries of Spanish rule. It will also explore the governments, dictatorships and democracies, and their relations with

the United States after independence. The histories and experiences of the peoples, whether farmers, slaves, migrant workers, immigrants, etc., portrayed in cultural productions such as literature, music, and art will be utilized in examining the social, economic, and political development of this culturally diverse region.

LATIN AMERICAN HISTORY (Semester Elective, 1/2 Credit) LATINAM

This survey course will provide students with general knowledge about the history, geography, politics, the arts, and culture in Latin America. Through literature and other cultural expressions such as visual arts, image productions, films, documentaries, etc., the Latin American History course will address the very diverse traditions that can be found in Northern and Southern regions of Latin America. The legacy of ancient pre-Hispanic cultures of the Americas will be analyzed, as a crucial component of the *mestizo* identity that characterizes contemporary citizenry of Latin American countries. It will bring to the center the debate of the indigenous and slaves' liberation movements as they occurred in the 19th century during the development of the nation-states. It will also explore historical data about relations between Latin America and other regions of the world that have had an influence in the area.

CHINA AND JAPAN: THE GLOBAL ERA (Semester Elective, 1/2 Credit) CHINA

Prior to the mid-1800's, China and Japan had been largely insular civilizations. China had three millennia of sinocentric dynastic rule and Japan was at the tail end of the ultra-insular Tokugawa Period. With the Opium Wars and Matthew Perry's contact both civilizations were fundamentally changed. This course is a critical examination of these two societies and their interaction with the other world societies during the dynamic and turbulent times of the past 150 years. The course utilizes a seminar format, placing responsibility on all members of the class to be active and informed participants. The reading for this course is largely primary sources. The course will culminate with a comprehensive project that incorporates the students' understanding and perspectives of the material.

SOUTHERN AFRICAN HISTORY (Semester Elective, 1/2 Credit) SA

Prior to European contact, Southern Africa was a region that was a collection of distinct cultures, civilizations, and traditions. The Zimbabwe, Khoikhoi, Sotho, and Xhosa all possessed long histories, proud traditions and unique innovations. With the arrival of the Dutch East India Company, this region's history became much more global in scope. This course is a critical examination of the evolution of Southern Africa and study of the effect of global interaction in the subsequent centuries to the present day. This class utilizes a seminar format, placing responsibility on all members of the class to be active and informed participants. The reading for this course is both primary and secondary sources. The course will culminate with a comprehensive project that incorporates the students' understanding and perspectives of the material.

**MATHEMATICS DEPARTMENT
(3 Credits Required - Through Algebra 2)**

The Upper School math curriculum is structured to follow a traditional course sequence (Algebra 1, Geometry, Algebra 2, Pre-Calculus, then Calculus), but is designed to provide differing levels of challenge at each level to suit our diverse student population:

Our **regular math courses** are best suited for our students who want a complete college-preparatory math education but are not interested in pursuing Advanced Placement or honors-level mathematics. The regular math courses are Algebra 1, Geometry, Algebra 2, Pre-Calculus, and Calculus.

Our **advanced math courses** are designed for students who like math, are interested in a greater level of challenge and depth than our regular courses provide, and/or who wish to prepare to take the Calculus Advanced Placement exam during their final year in high school. Some of our students take advanced math courses during their first couple of years in the Upper School, and then, for a variety of reasons, may choose to take regular math courses during their final year(s) in high school. This is customary for students who are interested in a more rigorous Algebra education, but are not seeking Advanced Placement in calculus, for example. The advanced math courses are Advanced Geometry, Advanced Algebra 2, and Advanced Pre-Calculus. Following Advanced Pre-Calculus, students are prepared to take Honors Calculus 1 or Honors Calculus 1 & 2.

Finally, for our students who seek and are ready for the greatest challenge in their math courses, our **honors-level math courses** allow students to accelerate their math curriculum so that they may take as many as three full years of college-level mathematics while in high school. Our honors math students typically take an Advanced Placement Calculus exam. Following Advanced Geometry, these students take Honors Algebra 2 & Pre-Calculus (combining the two in a single year), Honors Calculus 1&2, and Multivariable Calculus.

In addition to our core math curriculum, we also provide elective courses in **Statistics** and a full suite of course offerings in **Computer Science**. Students may take Honors Statistics as an elective if they have completed an honors calculus course (or are concurrently enrolled in an honors calculus course). While not all students elect to take them, these courses prepare students for the Advanced Placement exams in Statistics and Computer Science.

ALGEBRA 1 (Full Year, 1 Credit) ALG1

Algebra 1 introduces students to the language of mathematics. Students entering this course are expected to have a command of arithmetic operations. By the end of the course, students will have mastered basic algebraic concepts and manipulation with emphasis on simplifying variable expressions, solving basic equations, and introductory graphing. Throughout this course, there is an emphasis on teaching students how to study math effectively as preparation for higher-level math and science classes. This course is designed for students who have either not yet taken Algebra 1 or who have taken it but need additional Algebra 1 enrichment. **Prerequisite: Pre-Algebra**

GEOMETRY (Full Year, 1 Credit) GEOM

Geometry is a full geometry course, including planar and solid geometry, logic, observation, measurement and description. The curriculum has been designed to incorporate deductive reasoning, algebraic manipulation, and technology. Geometry provides vital preparation for Pre-Calculus, Calculus and standardized tests. This course is designed to be a complete college preparatory course for students who have successfully completed Algebra 1 and are interested in a moderate workload. **Prerequisite: Algebra 1**

ADVANCED GEOMETRY (Full Year, 1 Credit) AGEOM

Advanced geometry is an accelerated course in Euclidean geometry with emphasis on Algebra and advanced geometric topics. This course is designed for students who seek a more challenging Geometry course. Students are expected to have a strong command of Algebra 1 and to be consistently responsible in completing assignments and test preparation. **Prerequisite: Algebra 1 and permission of the department**

ALGEBRA 2 (Full Year, 1 Credit) ALG2

Algebra 2 completes the 2-year Algebra curriculum, giving students full command of algebraic concepts and problem-solving mechanics. The course begins with a review of Algebra 1, then continuing with a complete, traditional Algebra 2 curriculum, with an emphasis on understanding algebra as a study and outgrowth of the structure of real and complex number systems. Students are expected to enter the course with a command of basic Algebra 1. At the end of this course, students will have a complete foundation in algebra topics and manipulation, and will be ready to take on Pre-Calculus. **Prerequisite: Algebra 1 and Geometry**

ADVANCED ALGEBRA 2 (Full Year, 1 Credit) AALG2

This is an advanced course, providing mastery of Advanced Algebra as the basic building block necessary for calculus and higher-level science. Emphasis is on deep understanding, critical thinking and the building of very strong math and student skills. Students are expected to have a strong command of Algebra 1 and to be consistently responsible in completing assignments and test preparation. This course is designed for students who seek a greater level of challenge and full mastery of Algebra. Students who successfully complete this course will be prepared to take Advanced Pre-Calculus. **Prerequisite: Algebra 1, Geometry, and permission of the department**

HONORS ALGEBRA 2 & PRE-CALCULUS (Full Year, 1 Credit) HA2&PC

This is an advanced course, providing mastery of Advanced Algebra and Advanced Pre-Calculus as the building block necessary for calculus and higher-level science. This course is extremely accelerated, as it covers two years of advanced math in one year. Emphasis is on deep understanding, critical thinking and the building of very strong math and student skills. Students are expected to have a very strong command of Algebra 1 and to be consistently responsible in completing assignments and test preparation. This course is designed for students who seek an extremely high level of challenge and full mastery of Algebra. Students who successfully complete this course will be prepared to take Honors Calculus 1. **Prerequisite: Advanced Geometry and permission of the department**

PRE-CALCULUS (Full Year, 1 Credit) PC

Pre-Calculus is designed to build upon Algebra 2 topics and prepare students for college level mathematics, primarily Calculus. Emphasis is on deep understanding, critical thinking and the building of very strong math and student skills. Students who successfully complete this course will be prepared to take Calculus. **Prerequisite: Algebra 2**

ADVANCED PRE-CALCULUS (Full Year, 1 Credit) APC

This is an advanced course, providing mastery of Pre-Calculus topics as the building block necessary for college-level Calculus. This course is designed for students who seek a more challenging Pre-Calculus course and want to prepare for the following year's Advanced Placement Calculus Exam. Students are expected to have a strong command of Algebra 2 and to be consistently responsible in

completing assignments and test preparation. Students who successfully complete this course will be prepared to take Honors Calculus 1. **Prerequisite: Advanced Algebra 2 and permission of the department**

CALCULUS (Full Year, 1 Credit) CALC

This is a college-level Calculus course that is designed to mirror the first semester of most standard college calculus courses. Emphasis is on understanding, critical thinking and the building of very strong math and student skills. This course is not designed to prepare students for the Advanced Placement Calculus Exam, but students who successfully complete this course will be prepared for their first year of college Calculus. **Prerequisite: Pre-Calculus**

ADVANCED CALCULUS (Full Year, 1 Credit) ACALC

This is an advanced course, differentiated within the Honors Calculus 1 classroom. It offers a greater challenge than regular-level calculus, but this adapted course does not primarily focus on preparing for the AP exam (although some Advanced Calculus students will take the exam). This course is designed for students who were exceptionally strong in regular-level Pre-Calculus or Advanced Pre-Calculus but feel they are not quite ready for the full rigor of Honors Calculus 1. Advanced Calculus students have the same classroom experiences as Honors Calculus 1 students, but their homework assignments and assessments are modified. **Prerequisite: Pre-Calculus or Advanced Pre-Calculus, and permission of the department**

HONORS CALCULUS 1 (Full Year, 1 Credit) HCALC1

This is an honors course, providing mastery of Calculus topics commensurate with a first semester college Calculus course. This course is designed for students who seek a more challenging Calculus course and who plan to take the Advanced Placement Calculus (AB) Exam. Students are expected to have a strong command of Pre-Calculus and to be consistently responsible in completing assignments and test preparation. **Prerequisite: Advanced Pre-Calculus or Honors Algebra 2 & Honors Pre-Calculus**

HONORS CALCULUS 1 & 2 (Full Year, 1 Credit) HCALC1&2

This is an honors course, providing mastery of Calculus topics commensurate with the first and second semester of a college Calculus course. This course is designed for students who seek a more challenging Calculus course and who plan to take the Advanced Placement Calculus (BC) Exam. Students are expected to have a strong command of Pre-Calculus and to be consistently responsible in completing assignments and test preparation. Students who successfully complete this course will be prepared to take Multivariable Calculus. **Prerequisite: Advanced Pre-Calculus or Honors Algebra 2 & Pre-Calculus**

MULTIVARIABLE CALCULUS (Full Year Elective, 1 Credit) MVC

Multivariable Calculus extends many of the ideas from Calculus (instantaneous rates of change, differentiation, optimization, integration, etc.) to functions of more than one variable, providing a study of paths and surfaces in space. Calculus is brought to life by the 3⁺-dimensional nature of the mathematical objects involved. This course will cover vectors, partial derivatives, multiple integrals, an introduction to vector analysis, and some matrix algebra. Additional course objectives include a better understanding of series and introductory topics in linear algebra. Mathematical software is used to enhance visualization and understanding of course concepts. **Prerequisite: Honors Calculus 2 or Honors Calculus 1 & 2 or Honors Calculus 1 AND permission of the department**

HONORS STATISTICS (Full Year, 1 Credit) HSTATS

This is an honors course, and will provide an in-depth background in probability and statistics. Students will learn to formulate research questions, design experiments and sample surveys, apply statistical methods, construct statistical models, interpret calculations and communicate results. This course focuses on the applications of statistics as well as the mathematical underpinnings of statistical methods. The topics covered in this course exceed those typically covered in an introductory one-semester college statistics course as well as the standard AP Statistics curriculum. Students will be expected to take the AP Statistics exam. **Prerequisite: Honors Calculus 1 or Honors Calculus 1 & 2 or strong background in Pre-calculus AND concurrently enrolled in Honors Calculus 1 (or Honors Calculus 1 & 2)**

COMPUTER SCIENCE (Full Year, 1 Credit) CS

This course introduces computer science by teaching the basic constructs (i.e., selection, iteration, and functions) and data structures that are found in any programming language. This is done using the backdrop of HTML and JavaScript. As a result, students will be learning the fundamentals of computer science while becoming proficient at generating dynamic web pages. Class days are spent in the Upper School Computer Science Lab, where students spend the majority of their time completing various lab activities. This course is recommended for students who are interested in computer science and in developing their own programs. No prior experience is necessary. Available to students in grades 9-12.

HONORS COMPUTER SCIENCE 1 (Full Year, 1 Credit) HCS1

Honors Computer Science 1 is an aggressive introduction to computer science. This class is modeled on a collegiate-level programming course that embraces the object-orientated paradigm. By the end of the year, students will be able to independently develop substantial programs. This course also prepares students for the Advanced Placement Examination. No prior experience is necessary. Available to students in grades 9-12.

HONORS COMPUTER SCIENCE 2 (Full Year, 1 Credit) HCS2

This course is modeled after a collegiate level data structures course. The data structures covered are linked lists, stacks, queues, binary search trees, heaps, hash tables, sets, and maps. In addition, more complex searching and sorting algorithms and recursive techniques are covered.

Prerequisite: Honors Computer Science 1

ADVANCED TOPICS IN COMPUTER SCIENCE (Full Year, 1 Credit) ATCS

Advanced Topics Computer Science is an advanced computer science project-based course. In this course, the students and the instructor will choose one or two large collaborative projects to develop throughout the school year. The goal of the course is for each class to leave an impressive project as their legacy. **Prerequisite: Honors Computer Science 2 (or concurrently enrolled in Honors Computer Science 2)**

ADVANCED TOPICS IN COMPUTER SCIENCE 2 (Full Year, 1 Credit) ATCS2

For students who take Honors Computer Science 1 in their freshman year and continue taking computer science each year, Advanced Topics Computer Science 2 allows them to continue their studies in the field of computer science as seniors. In this independent study course, students are expected to develop one or two pieces of software for a broader audience. For example, students

have written software utilities for faculty and students to use at Academy, as well as software for mobile devices. **Prerequisite: Advanced Topics in Computer Science**

SCIENCE DEPARTMENT

(3 Credits Required - Including Biology, Chemistry and Physics)

BIOLOGY (Full Year, 1 Credit) BIO

Ecology, evolution, cell biology, and biochemistry are presented in the first semester, while systematic diversity of life, genetics, and human biology are studied second semester. The course emphasizes real world applications of these concepts. Laboratory and classroom activities stress a hands-on approach to science. There is ample room in the Biology curriculum to spend extra time on a given topic or to explore special topics in order to meet the needs and desires of each group of students.

HONORS BIOLOGY (Full Year, 1 Credit) HBIO

This course is designed as an Advanced Placement Course in general biology. Students study ecology, evolution, systematics, chemistry, and biochemistry in the first semester. They study cell biology, cell respiration, photosynthesis and plant biology, DNA and molecular biology, genetics, microbiology, and animal diversity and physiology in the second semester. Students are expected to perform many laboratory experiments that stress hypothesis testing and to write up these experiments using proper scientific format. Mathematical and statistical approaches to biology are also emphasized where applicable. Honors Biology is designed to prepare students for the end-of-year SAT Subject test in biology and the Advanced Placement Exam, which is given in May.

CHEMISTRY (Full Year, 1 Credit) CHEM

Chemistry is designed to help students gain understanding into the composition and properties of matter as well as how matter reacts. In addition to studying the structure of the atom, topics include chemical bonding, stoichiometry, periodicity, study of the physical states, solutions, acid-base chemistry, kinetics, and equilibrium chemistry. Practical application of chemistry is stressed through problem solving, and laboratory investigation is an integral part of the course. Upon completion of the course students should be prepared to take the SATII subject test in Chemistry.

ADVANCED CHEMISTRY (Full Year, 1 Credit) ACHEM

Advanced Chemistry is a traditional chemistry course that explores topics to a greater depth than in the Chemistry course. Topics include the structure of the atom, chemical bonding, stoichiometry, periodicity, study of the physical states, solutions, acid-base chemistry, kinetics, and equilibrium chemistry. Practical application of chemistry is stressed through problem solving, and laboratory investigation is an integral part of the course. Problem sets and laboratory investigations are presented at a more challenging level. Upon completion of the course students should be prepared to take the SATII subject test in Chemistry.

PHYSICS (Full Year, 1 Credit) PHYS

Students enrolled in this course will spend a full year exploring classical physics topics such as mechanics, electromagnetism, and wave phenomena. Considerable emphasis is placed on conceptual understanding of these topics, but students are also expected to become proficient in quantitative problem solving. Laboratory work is especially designed to deepen understanding and

provide a true hands-on experience of the phenomena under discussion. Advances in technology that strengthen the course are continually being integrated into the program, both in the traditional classroom setting and in the laboratory. Physics is a fast-paced, rigorous course that covers a wide range of topics.

HONORS PHYSICS 1 (Full Year, 1 Credit) HPHYS1

Honors Physics 1 is the study of fundamental processes in the material universe as gleaned through the scientific method. The primary course objective is to focus the student's perception on the realization that the world is governed by a series of basic physical relationships described by mathematical processes. Describing nature through the application of mathematical principles allows the student to understand physical phenomena they have encountered, to relate and attempt to understand phenomena not yet seen, and to realize the limitations of our understanding. The course consists of the traditional categories of mechanics, thermodynamics, electromagnetism, and atomic theory. Emphasis is placed on symmetry principles and conservation laws. Laboratory work, demonstrations, and discussions are integral parts of the learning process. After completing the year, students will be prepared to take the Advanced Placement Examination.

HONORS PHYSICS 2 (Full Year, 1 Credit) HPHYS2

Honors Physics 2 is a year-long course consisting of lectures and problem solving. Advanced topics from mechanics and electrodynamics are treated employing methods of real variable calculus and vector calculus. A research project is required. After completing the year, students will be prepared to take the Advanced Placement Examination.

BIOLOGY 2 (Full Year Elective, 1 Credit) BIO2

Biology is one of the primary professions in our world. It is one of the most integrated disciplines in science. The appreciation and understanding of modern biology is an important part of being a medical doctor, biologist, physicist, chemist, and computer programmer. This course takes students on a journey of discovery, examining topics ranging from the simple DNA molecule to the complex DNA of plants and animals. Students will investigate the evolution, cell biology, molecular biology, anatomy, and development of these simple and complex topics. This course promotes hands-on and inquiry-based learning through the use of laboratory experiments where students will do such things as isolate and study DNA, grow and analyze plants, and dissect selected animals in order to visualize their anatomy. For those who show interest, independent projects can be designed, conducted, and may be submitted for publication.

HONORS CHEMISTRY (Full Year Elective, 1 Credit) HCHEM

This course is designed to be the equivalent of the general chemistry course taken during college. Students in this course will build on the foundation provided during their first year of high school chemistry. The primary objective is for each student to maximize his/her understanding of fundamentals and develop competence in dealing with chemical problems. This course will help students to think clearly and to express their ideas with logic and clarity. Students will be prepared to sit for the Advanced Placement Examination.

ENVIRONMENTAL SCIENCE (Full Year Elective, 1 Credit) ENV

Environmental Science is an interdisciplinary course for seniors. Principles from biology, chemistry and physics are employed in understanding natural earth systems and environmental issues. Geology, oceanography, meteorology and basic astronomy apply the physical sciences, while ecology and species diversity relate biology to "Health of the Planet" issues. Some topics are also discussed

from a social perspective, including environmental regulation, resource allocation, agricultural methods and population. While this course is not specifically designed for the Advanced Placement Examination, the curriculum will cover most of the Advanced Placement designated topics. Outstanding students are encouraged to consider taking the Advanced Placement Examination in the spring quarter.

PHYSICAL EDUCATION DEPARTMENT

(1/4 Credit Required - Health)

(6 Units Required – Physical Education)

HEALTH (Full Year, 1/4 Credit) HEALTH

The Health curriculum is based on the concept of providing the knowledge and skills necessary for students to make responsible, well-informed choices that promote a healthy lifestyle. The students are encouraged to take personal responsibility and to utilize critical thinking skills when looking at current health topics and how they impact their daily lives. Topics include personal and mental health, drug and alcohol prevention, stress management, eating disorders, human growth and development, relationships, sexually transmitted diseases, cancer awareness and early detection, and CPR certification. Students will participate in a variety of teaching and learning methods such as class discussions, role-playing, videos, projects, tests, and demonstrations.

PHYSICAL EDUCATION (1 Semester = 2 Units) PE

The primary focus of Upper School Physical Education is on lifetime sports and physical fitness activities. Students are introduced to a variety activities to encourage the development of a fitness regime that targets strength training, cardiovascular fitness, and personal fitness. Cooperation, positive peer interaction and sportsmanship skills are emphasized.

ADDITIONAL COURSES

(1/4 Credit Required - Ethics and Community)

ETHICS AND COMMUNITY (Full Year, 1/4 Credit) ETHICS

The purpose of the Ethics and Community course is to introduce students to the thoughtful study of values, ethics, and character. The lives and loyalties of older students are more complicated than those of young children. Without new tools to confront their new reality, students at this age can grow confused, frustrated, and even skeptical about what it means to “do the right thing.” In this course they will learn about the role of shared values in binding communities, and why conflict in community exists even when values are shared. They’ll explore the limits of value-claims made by particular communities (i.e., It’s wrong to do that here and now.) versus value-claims made universally (i.e., It’s wrong to do that anywhere and at anytime.). Students will also learn that truly tough ethical decisions often pit two “rights” against each other. (i.e., Do I tell the truth or stay loyal to my friend?). They will be introduced to schools of thought that will help them untangle these true dilemmas, which are an inescapable part of their emerging adulthood. Finally, these new ideas will be placed into the larger context of character. Being able to reason through complex ethical situations is important, but a full picture of character also includes feeling and action. Based on this description of character, students will explore the meaning of “integrity” and be encouraged to grow in the direction of integrated thought, feeling, and action.

PSYCHOLOGY (Full Year, 1 Credit) PSYCH

This is a general survey course that provides students with a broad background in principles and applications of psychology. The major goal of this course is to help students become better prepared to live in a diverse world. The following modules will be covered: principles and proponents of psychological theories and methods of scientific inquiry; the biological basis of behavior including psychology of the brain and nervous system and the accompanying systems and perceptual processes; learning theories and cognitive processes; theories and applications of motivation and emotion; the major domains of human life span development; the major theories of personality, detailing the major disorders, their treatments, and therapy; and how human interaction is influenced by the individual, a group, and the environment.

EXTRA-CURRICULAR OFFERINGS IN THE UPPER SCHOOL

Each year the Upper School offers extra-curricular options. Students who have genuine interest are encouraged to get involved in one or more activities. In addition to the list below, new clubs are welcomed which are all-inclusive and must have a faculty sponsor. We encourage student initiative in the forming and developing of activities.

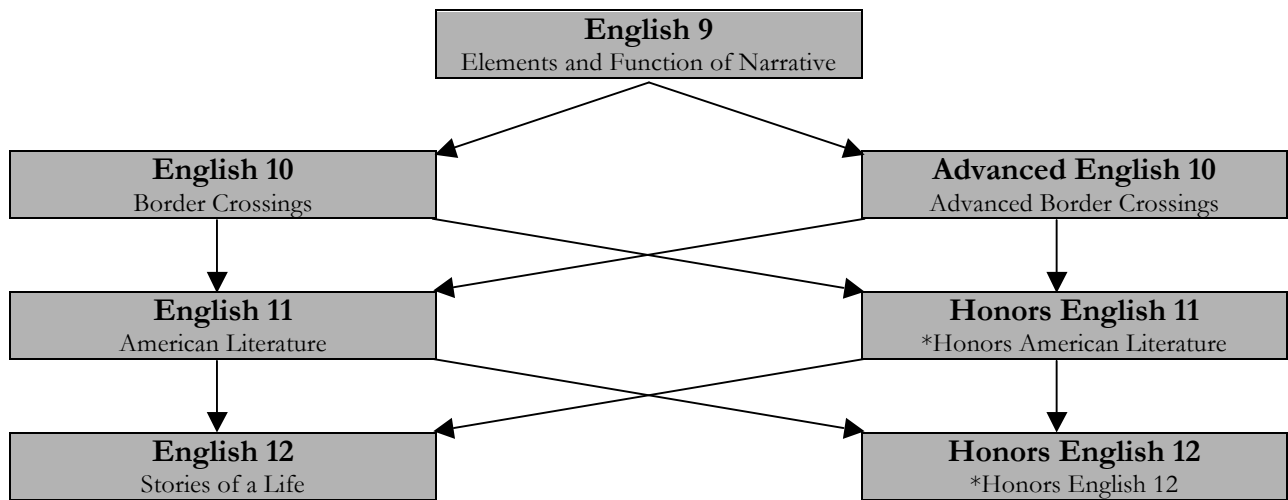
UPPER SCHOOL ACTIVITIES AND CLUBS	
<ul style="list-style-type: none"> ○ <i>The Academy Life</i> (newspaper) ○ Admissions Tour Guides ○ ALPHA ○ Anime Club ○ Art Society ○ Black Organization of Students ○ Chess Club ○ China Club ○ Christian Fellowship ○ Dead Language Society ○ Desi Club (South Asian Affinity group) ○ Economics Club ○ GROW (gender issues) ○ GSA (gay/straight issues) ○ Habitat for Humanity ○ Home Economics ○ In-The-Know ○ Jewish Club 	<ul style="list-style-type: none"> ○ Juggling Club ○ Linguistics Club ○ Movie Club ○ Music Club ○ Outdoor Adventure Club ○ Political Club ○ Powernap Cub ○ Puzzle Club ○ <i>Quest</i> (art and literary magazine) ○ Riding Club ○ Service Board ○ Social Justice and Sustainability Committee ○ Spanish Club ○ Student Council ○ Theater (Fall Drama/Spring Musical) ○ <i>The Caravel</i> (yearbook) ○ Tutoring Cafe

UPPER SCHOOL INTERSCHOLASTIC ATHLETICS		
Fall	Winter	Spring
<ul style="list-style-type: none"> ○ Cross Country (boys/girls) ○ Field Hockey (girls) ○ Football (boys) ○ Golf (boys/girls) ○ Soccer (boys/girls) ○ Tennis (girls) ○ Volleyball (girls) 	<ul style="list-style-type: none"> ○ Basketball (boys/girls) ○ Bowling (boys/girls) ○ Swimming (boys/girls) ○ Wrestling (boys) 	<ul style="list-style-type: none"> ○ Baseball (boys) ○ Lacrosse (boys/girls) ○ Tennis (boys) ○ Track (boys/girls)

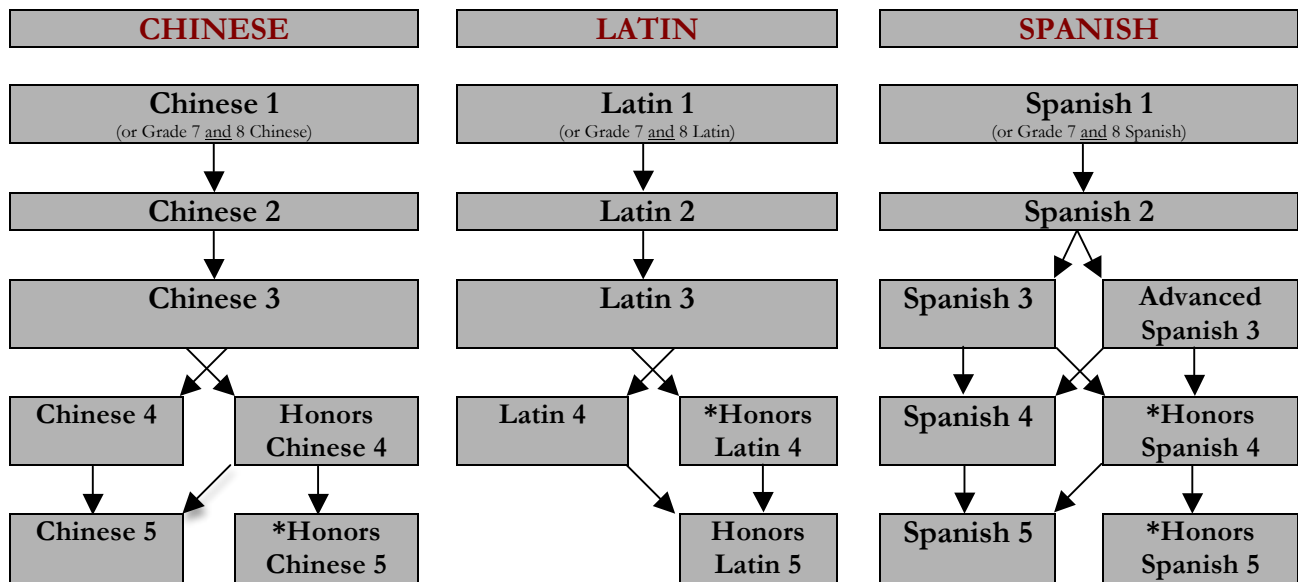
ACADEMIC FLOW CHARTS

The following charts represent possible paths through each departmental curriculum. There is no designated “honors” track, so curriculum paths may vary. An asterisk denotes a course that prepares students for an Advanced Placement Examination. Advanced classes, as well as italicized courses, receive an additional 10% weighting. Honors classes and underlined courses receive an additional 15% GPA weighting. (Please refer to the Grading and Weighting scale chart on page 25 for more information.)

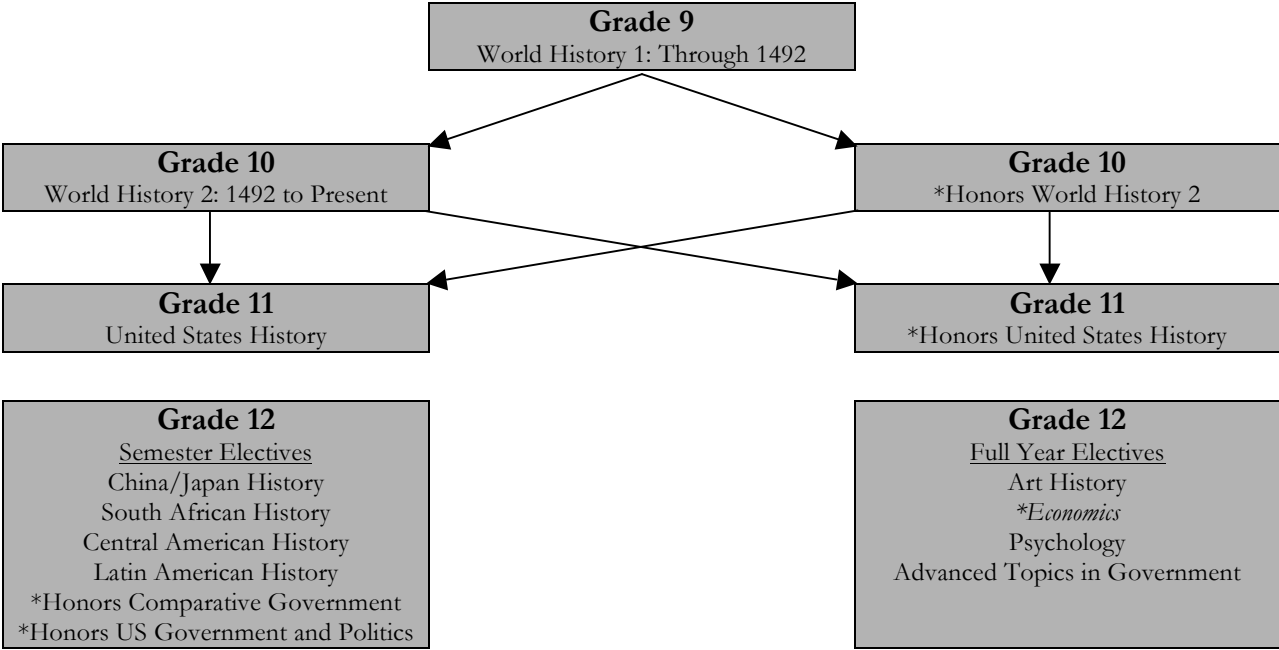
ENGLISH DEPARTMENT



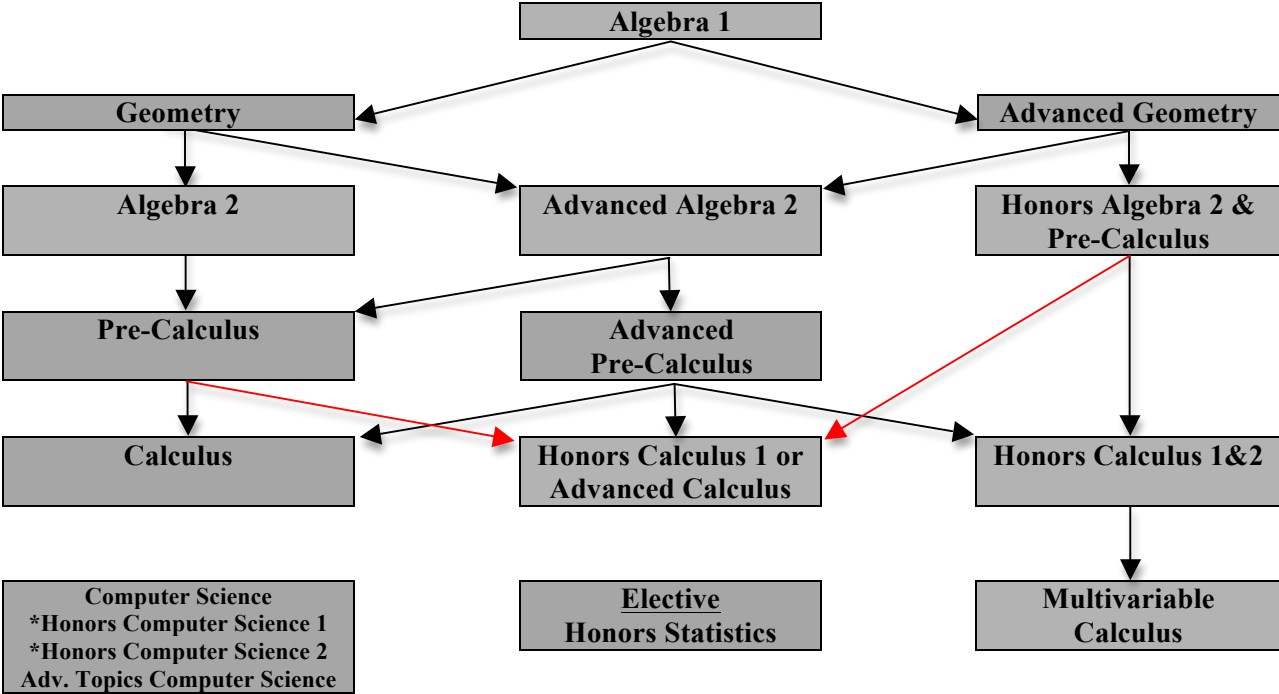
FOREIGN LANGUAGE DEPARTMENT

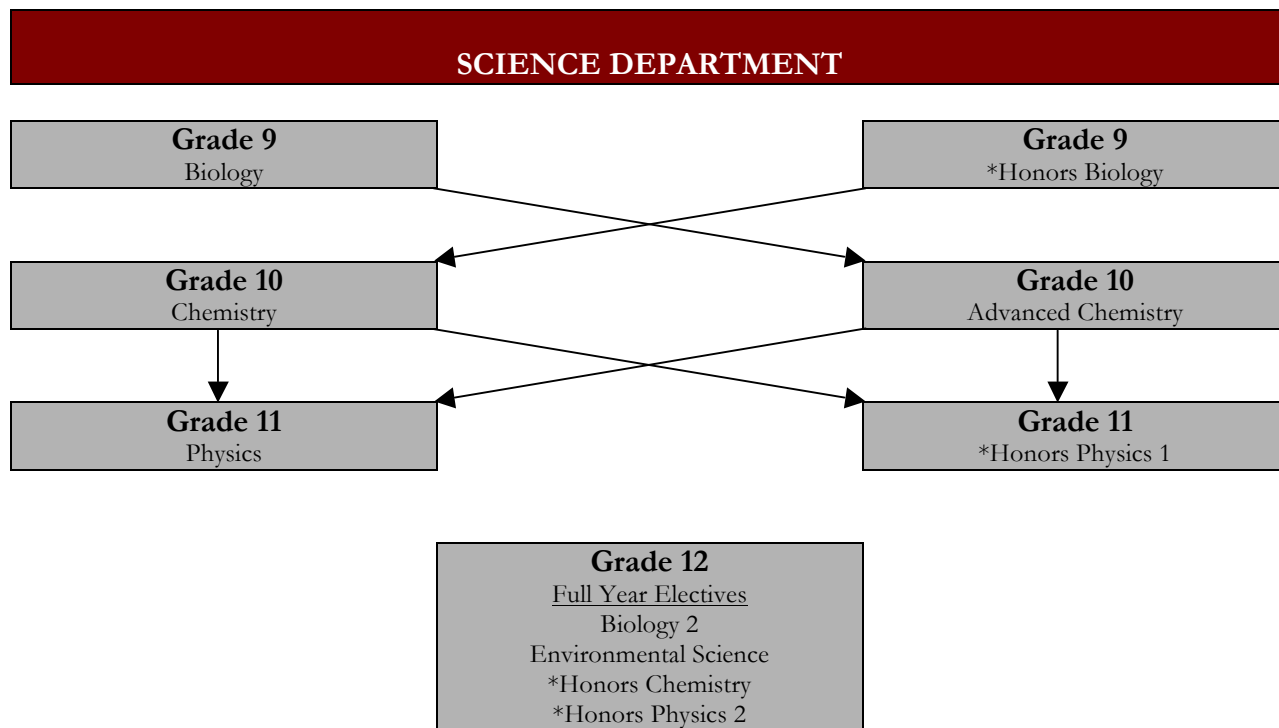


HISTORY DEPARTMENT



MATHEMATICS DEPARTMENT





Grade Weighting System

A sliding scale of grade weighting is used to determine grade point average (GPA). Standard weighting on a four-point scale will be applied to normal college preparatory courses. An additional ten percent weight will be added to grades in “Advanced” courses, and an additional fifteen percent weight to grades in “Honors” courses. See the chart on the next page for listings of course weights.

Advanced courses indicate accelerated versions of our college-preparatory courses. **Honors** courses indicate those designed predominantly to prepare students for a college level, external examination. Courses that cover two years’ worth of material in one year are also included. Prerequisite criteria must be met for entry to Advanced and Honors courses.

Both unweighted (uGPA) and weighted (wGPA) grade point averages are reported on the transcript and on documents sent to colleges and scholarship agencies. The Columbus Academy does **not** calculate class rank.

Grading and Weighting Scale

Description	Grade	Scale %	Normal Unweighted	Advanced Weight +10%	Honors Weight +15%
Outstanding	A+	97-100	4.33	4.66	4.83
Superior	A	93-96	4.00	4.33	4.50
Superior	A-	90-92	3.66	3.99	4.16
Well Qualified	B+	87-89	3.33	3.66	3.83
Well Qualified	B	83-86	3.00	3.30	3.45
Well Qualified	B-	80-82	2.66	2.93	3.06
Qualified	C+	77-79	2.33	2.56	2.68
Qualified	C	73-76	2.00	2.20	2.30
Qualified	C-	70-72	1.66	1.83	1.91
Poor	D+	67-69	1.33	1.46	1.53
Poor	D	63-66	1.00	1.10	1.15
Poor	D-	60-62	0.66	0.73	0.76
Failing	F	Below 60	0.00	0.00	0.00
Passing	P		0.00	0.00	0.00
Outstanding	O		0.00	0.00	0.00
Incomplete	I		0.00	0.00	0.00
Withdrew	W		0.00	0.00	0.00

Note: Weighting shall not exceed a maximum of .33 additional weight in the 10% column or .50 additional weight in the 15% column.

Weighting Table for Designated Courses

	NORMAL COURSES	ADVANCED COURSES	HONORS COURSES
	STANDARD WEIGHT	+ 10% WEIGHT	+ 15% WEIGHT
English	English 9	Advanced English 10	Honors English 11*
	English 10		Honors English 12*
	English 11		
	English 12		
	Creative Writing		
	Journalism		
Mathematics	Algebra 1	Advanced Geometry	Honors Algebra 2 & Pre-Calculus
	Geometry	Advanced Algebra 2	Honors Calculus 1*
	Algebra 2	Advanced Pre-Calculus	Honors Calculus 1 & 2*
	Pre-Calculus	Advanced Calculus	Honors Computer Science 1*
	Calculus	Adv Topics in Computer Sci 1	Honors Computer Science 2*
	Computer Science	Adv Topics in Computer Sci 2	Honors Statistics
			Multivariable Calculus
Science	Biology	Advanced Chemistry	Honors Biology*
	Biology 2		Honors Chemistry*
	Chemistry		Honors Physics 1*
	Physics		Honors Physics 2*
	Environmental Science		
History	World History 1	Adv Topics in Government	Honors World History 2*
	World History 2	Economics*	Honors United States History*
	United States History		Honors Comp Government*
	China and Japan		Honors U.S. Government*
	Southern African History		
	Central American History		
	Latin American History		
	Art History		
	Psychology		
Foreign Lang	Chinese 1	Chinese 5	Honors Chinese 4
	Chinese 2	Advanced Spanish 3	Honors Chinese 5
	Chinese 3	Spanish 5	Honors Latin 4*
	Chinese 4		Honors Latin 5
	Latin 1		Honors Spanish 4*
	Latin 2		Honors Spanish 5*
	Latin 3		
	Latin 4		
	Spanish 1		
	Spanish 2		
	Spanish 3		
	Spanish 4		

* These courses offer preparation for Advanced Placement examinations

Advanced and Honors Courses at Columbus Academy

General Guidelines: Honors courses are college level courses which frequently adhere to a national standardized curriculum. These courses give prepared and qualified students an opportunity to pursue their passion for a particular subject by taking a demanding, in-depth course that will provide both accelerated learning and an opportunity to take the national Advanced Placement Exams in May. Students who take an AP also have the opportunity to earn college credits for their high school work if they score a three or higher (out of five) on an exam; however, they should keep in mind the following: 1) some colleges accept only 4 or 5 scores for credit; 2) some use the exam only for placement; 3) some will still have students repeat the course in college even if they pass the exam; 4) poor grades in Honors classes will not enhance their college application and indeed can be used to "weed out" applicants.

What kinds of questions should students ask before committing to Advanced and Honors courses?

- Do I really enjoy this subject enough to consider devoting so much time and energy to this class?
- Will taking this Advanced or Honors class or these classes allow me time to pursue other aspects of my participation at Academy, such as drama, athletics, service and my other academic responsibilities?
- Do the colleges to which I am considering applying give credit for this Honors course if I pass the corresponding AP exam?
- What AP test score is required by a college to receive credit? (Colleges vary.)
- Do colleges place students in courses based on AP results, or will I also be required to take a placement exam?

Important Information for students participating in the Advanced and Honors program:

- Each Advanced and Honors course has a set of prerequisites that must be met in order to enroll in that course.
- Though students are encouraged to take the AP Exams in May, they are not required to take them. The fee varies each year and, when applicable, can be applied to the student's account. The scheduled dates and times for the exams are announced early in the school year and are published in the school calendar.

Admission into Advanced and Honors Classes

Science

- To go from an Advanced or Honors class to the next level Advanced or Honors class requires a B+ or better and/or recommendation of the instructor.
- To go from a non-Advanced/Honors class to the next level Advanced or Honors class requires an A or better and/or recommendation of the instructor.
- All students entering Honors Physics should have finished Honors Algebra 2 with Honors Pre-Calculus or Honors Calculus 1, or should be taking either concurrently with Honors Physics.

Students who do not meet the above requirements may submit a petition to the Department Chair to enter an Advanced or Honors class. A student petitioning to enter Advanced Chemistry or Honors Physics may be asked to demonstrate math proficiency. Students petitioning to enter Honors Biology must meet with Honors Biology instructor and Department Chair, in consultation with the Grade 8 Team. As a condition for approval to be considered for entry into Advanced or Honors classes, a petitioning student may be asked to do additional summer work to be determined by the instructors and Science Department Chair.

Math

Placement into Advanced and Honors Courses begins with the Math Placement Exam Process in the 8th and/or 9th grade year. Placement decisions are based on a combination of previous course grades, teacher recommendations, parent recommendations, and placement test results. In cases where a student wishes to take a more accelerated course than they are prepared for, summer enrichment work may be required.

Continuation in Advanced or Honors Courses is based upon current course grades, parent-teacher discussions, and student preferences and goals.

English

- To go from an Advanced or Honors class to the next level Honors class requires a B- or better and/or recommendation of the instructor.
- To go from a non-Advanced/Honors class to the next level Advanced or Honors class requires an A- or better and/or recommendation of the instructor.

Students who were not recommended for an Advanced or Honors Class and wish to appeal their placement recommendation may do so by meeting with their current instructor to discuss the placement decision, submit a portfolio of three graded writing assignments from the current school year, and take a timed writing assessment. The Department will review these items and make a final placement decision.

History

- To go from an Advanced or Honors class to the next level Honors class requires a B- or better and/or recommendation of the instructor.
- To go from a non-Advanced/Honors class to the next level Advanced or Honors class requires an A- or better and/or recommendation of the instructor.

Students who do not meet the above requirements may petition to enter an Advanced or Honors class. Petitioning students may be asked to meet with current instructor, instructor of the class the student wishes to enter and the History Department Chair. To be considered for entry into an Advanced or Honors class a petitioning student may be asked to complete additional summer History work to be determined by the instructors and History Department Chair.

Foreign Language

- To go from Spanish 2 to Advanced Spanish 3 requires an A- or better, consideration of final exam, and /or recommendation of the instructor.
- To go from an Advanced or Honors class to an Honors class requires a B+ or better, consideration of final exam, and/or recommendation of instructor.

Students who do not meet the above requirements may petition to enter an Advanced or Honors class. Petitioning students may be asked to meet with current instructor, instructor of class the student wishes to enter, and the Department Chair. To be considered for entry into an Advanced or Honors class a petitioning student may be asked to complete additional summer work in the target language and pass a language placement test.

Because of the difference in pace and depth between non-Advanced/Honors classes and Advanced/Honors classes, with rare exceptions, students in non-Advanced/Honors classes will not be placed in Advanced or Honors classes. Non-Advanced/Honors students may be placed in Advanced or Honors classes at the discretion of the instructor and the Department Chair.