



The

Brunswick School/Greenwich Academy

COURSE CATALOGUE

2010-11

**Brunswick School
and
Greenwich Academy**

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BRUNSWICK SCHOOL & GREENWICH ACADEMY

Brunswick School and Greenwich Academy are college preparatory schools. Mindful of their responsibility to provide their students with a strong academic program and at the same time to recognize individual talents and special interests, both schools maintain a strong and balanced offering of required and elective subjects. Honors and Advanced Placement sections in many courses provide qualified students with special challenges, while elective courses available in most disciplines furnish enrichment and variety in traditional academic areas and in art, drama, dance and music.

Statements of each Department's requirements and philosophy and complete descriptions of core and elective courses are provided in the following pages.

Note that both Brunswick and Greenwich Academy reserve the right to cancel any course because of under-enrollment. Registrants in any canceled course will be notified as early as possible.

The minimum required course load is five. Students proposing a program of six or more full credit courses that include honors and advanced placement must have the permission of the Head of the Upper School for Greenwich Academy students and the Dean of Academic Affairs for Brunswick students.

EDUCATIONAL TECHNOLOGY GOAL STATEMENT

Our Schools recognize that technology can create learning opportunities for students that would not otherwise be possible, fundamentally transforming the nature of teaching and learning. Our one-to-one laptop program integrates technology skills that promote project-based, student-centered learning, the acquisition of problem-solving skills, and the development of media and information literacy.

- Students develop the skills to employ technology as a valuable tool in research, evaluation, organization, and communication of information.
- Students learn to be critical of the currency and accuracy of information gathered from electronic sources.
- The Schools promote ethical, responsible, and appropriate use of technology to the students, faculty, and staff.
- The Schools incorporate technology integration as an essential component of its professional development, providing the necessary time and resources for it, and ensuring that constituents acquire and demonstrate essential technology skills and proficiencies.

Typical Four-Year Sequence of Courses:

The sequence outlined below, while typical, is not fixed. Other options, permitting stronger emphasis in a particular subject area (e.g., Language, History, Science) are also open to students.

9 TH GRADE	10 TH GRADE	11 TH GRADE	12 TH GRADE
English 9	English 10	English 11	English 12 electives
World Cultures	European History	U.S. History	History elective
Geometry	Algebra II	Precalculus	Adv. Mathematics
Biology	Chemistry	Physics	Science elective
Languages	Languages	Languages	Languages
Arts*	Arts*	Arts*	Arts*
Health (GA: ½ year)	Health (GA & BR: ½ year)	Ethics (BR: ½ year)	Public Speaking (BR: ½ year)

*one-year requirement

Graduation Requirements:

ENGLISH:	Four years
HISTORY:	Three years (including World Cultures, European History and U.S. History)
MATHEMATICS:	Three years (including Geometry and Precalculus)
SCIENCE:	Three years (Biology, Chemistry and Physics)
FOREIGN LANGUAGE:	Completion of Level III in one language (<i>Arabic, Chinese, French, Italian, Latin or Spanish</i>)
ARTS:	One year (<i>both semesters in a studio or performance course</i>)
PHYSICAL EDUCATION:	Four years
HEALTH:	One half-year (BR & GA)
ETHICS:	One quarter (BR)
PUBLIC SPEAKING:	One half-year (BR)

COORDINATION

Students from Brunswick and Greenwich Academy enroll in courses on both campuses, schedule and numbers permitting. Students should bear in mind the following:

- Ten minute passing times occur between classes.
- Car transportation between campuses is prohibited. Students must occasionally walk in inclement weather.
- Students must obey the rules of both schools as outlined in their respective handbooks.

STUDY ABROAD

Brunswick School and Greenwich Academy sponsor a variety of study abroad options that give students the opportunity to discover new cultures and, in most cases, speak the foreign language they study in full immersion with homestay programs. Please consult the schools' websites for more information on these exciting educational opportunities.

THE DUFF CENTER

Greenwich Academy's Duff Center encourages students to pursue their individual passions beyond the typical classroom experience viewing the world as a campus for active and intentional learning. Its mission is to promote exploration, foster cultural sensitivity and build leadership skills through hands-on, process-oriented activities. Open year round, the Duff Center facilitates speaker presentations, field trips, international travel, summer enrichment and research internships. Students interested in pursuing programs sponsored by the Center should contact its Co-Directors, Connie Blunden and Ann Decker.

ADVANCED PLACEMENT COURSES

Advanced Placement (A.P.) courses are college level courses offered chiefly in grades 11 and 12. Almost all departments offer A.P. courses that carry extra credit included in computing Honors. A sufficiently high score on an A.P. examination may allow the student to earn credit in the college he or she eventually attends. Students are carefully selected for A.P. courses according to the following criteria:

- teacher recommendation;
- grades in prerequisite courses;
- standardized test scores (History department);
- consideration of the student's total academic load;
- other specific departmental requirements (see appropriate section).

Students may not take more than three A.P. courses in a given year without permission of the Head of the Upper School for Greenwich Academy students or the Dean of Academic Affairs for Brunswick students. The work of a typical A.P. course involves homework of an hour or more each night. Both schools expect students to give serious commitment to A.P. courses and require students to take the A.P. examination in May. A student may, at the teacher's discretion, lose A.P. status at any point during the year. Students do not, however, have the prerogative to opt out of an A.P. course after the designated drop/add period. Colleges will be notified of any change in a student's A.P. status.

HONORS COURSES

Honors courses are significantly more rigorous than regular courses, and student work is expected to show greater depth, more sophisticated reasoning, academic independence and higher creativity than the work in regular courses. Upper level Honors courses approach A.P. courses in their degree of expectation and difficulty. Almost all departments offer Honors courses that carry extra credit included in computing Honors. Students need specific departmental recommendation to take Honors courses.

INDEPENDENT STUDY

Independent projects, in which students do considerable work on their own without the constant supervision of the teacher, are sometimes available. Subject to administrative and departmental approval, and working with a designated faculty sponsor, students may elect to fulfill a requirement or an elective by special independent work for which they will receive full or partial course credit.

ACADEMIC CONCENTRATION

Greenwich Academy students whose Junior and Senior year courses yield a broad and deep understanding of an area of study may propose an Academic Concentration for their Senior year. This program is intended for highly motivated seniors who wish to focus on independent and original work in a particular field under the guidance of a faculty advisor.

Upon completion of their studies, seniors who display exceptional classroom performance, participate in summer study or internships, fulfill some form of outside research, and complete a successful presentation of their work will graduate with distinction in their area of academic concentration.

CLASSICS DIPLOMA

In keeping with a long-standing tradition at the best American private schools, Brunswick offers the opportunity to follow a course of study that leads to the Classics Diploma. This is awarded to those students who have successfully completed four years of Latin in the Upper School, including one A.P. level Latin course, and two years of classical Greek. At graduation the student receives his Brunswick diploma written in Latin.

ENGLISH

The English program has several major objectives: to help students increase their understanding and command of language, to develop the process of critical and creative thinking and to foster the knowledge of a wide range of literature.

All English courses on both campuses are designed to help students improve their proficiency in reading, thinking, speaking and writing, through reading and discussing literature, through extensive writing, and through grammar and vocabulary work. Word processing, which both departments regard as an integral tool for thinking and writing, is required for all outside assignments.

Course Title: ENGLISH 9 (Greenwich Academy)
Grade Level: 9th
Prerequisites: None

The 9th grade English course at Greenwich Academy has as its theme *New Worlds, New Eyes*. The course creates a foundation in literature and in the increasingly complex skills needed in the Upper School. Active reading, annotation, discussions, and frequent writing-to-learn assignments help students to build their own complex interpretations of a variety of texts. Students learn to interpret and re-interpret variations of a story and to see from more than one perspective. Writing focuses primarily on the analytical essay (original topic, thesis, elaboration, evidence, structure, voice, style) but also includes creative poems and stories. Ongoing self-assessment and portfolios help students to recognize the strengths and weaknesses in their own writing process and to set goals. Students use laptop computers for writing, inquiry, and multi-media projects, including making their own videos. Recent texts have included: *Antigone, Pride and Prejudice, Twelfth Night, Lord of the Flies, The Joy Luck Club, Catcher in the Rye, Raisin in the Sun* and *Genesis*.

Course Title: ENGLISH 9 (Brunswick School)
Grade Level: 9th
Prerequisites: None

Building on a Middle School foundation of myth and legend, the 9th grade English course at Brunswick has as its theme *Emerging Male Archetypes*. In this course, the students examine males as they perceive themselves and as they are perceived by others. The course focuses on the constant and changing images of the developing man in different literary and historical periods. Through the examination of models such as Odysseus, Sir Gawain, Prince Hal, and Holden Caulfield, the boys begin to develop an understanding of what society has traditionally defined as honorable male behavior. Following, the course expands the students' awareness of many types of literature: novels, drama, poetry and essays. Although we continue instruction in the writing of narrative, descriptive and creative essays, our emphasis continues to shift to more sophisticated analytical and expository writing. Recent texts included in the course have been: *Genesis, The Odyssey, Sir Gawain and the Green Knight, Henry IV, The Catcher in the Rye*, and *Lord of the Flies*.

Course Title: ENGLISH 10
Grade Level: 10th
Prerequisites: English 9 or equivalent

English 10 is primarily a study of European literature. Students read a variety of genres and explore writing in myriad forms, with emphasis on the analytical essay. Grammar study arises out of the students' specific needs and vocabulary is studied through the literary texts. Works that have been studied include *The Iliad, Canterbury Tales, Macbeth or Othello, A Doll's House, Frankenstein, Candide, The Stranger, A Clockwork Orange, Wuthering Heights, The Talented Mr. Ripley, The Metamorphosis*, as well as selected poetry and essays.

Course Title: ENGLISH 11
Grade Level: 11th
Prerequisites: English 10 or equivalent

English 11 traces the American experience as it is reflected from its colonial beginnings to twenty-first century literature. Recent years have included such works as *The Scarlet Letter*, *Adventures of Huckleberry Finn*, *As I Lay Dying*, *The Great Gatsby*, *The Things They Carried*, *Narrative of the Life of Frederick Douglass*, *The Bluest Eye*, and *The Namesake*. In addition, students will study a wide range of poetry and non-fiction prose and will explore the writing of more complex expository and creative papers. In May, selected students may sit for the A.P. English examinations (English Language and/or English Literature).

English XII: Literature and Composition Senior Electives

The English Department offers specialized senior level courses that continue to teach reading, writing and critical thinking skills. Although the syllabi of these seminars vary, the goals of instruction are consistent -- to develop students' comprehension and expression so that they graduate as independent thinkers and persuasive writers. Common skills represented in each course will range from the proper methods of seeking outside critical sources to presentation skills, and in all courses, analytical writing will be stressed in full. In each course, students will write in various forms and read works representing diverse voices, experiences, genres, time periods and cultures.

In the fourth quarter, students will submit a significant critical paper that will be graded by the student's own teacher, and then submitted to a panel of English teachers. Each year, the joint English Departments will select one essay from each campus as a Senior Prize Paper. All seniors will participate in *The Hamlet Project*, a four-week intensive study of the play. Students will read *Hamlet*, perform selected scenes and/or soliloquies, study film and stage productions, and attend a lecture on the play by a visiting professor. Selected seniors may sit for the A.P. English Literature exam in May.

African-American Literature

Beginning with the early twentieth-century, this course offers students an introduction to the major trends and writers of the African-American literary tradition. Students will gain an understanding of the Harlem Renaissance from an artistic and cultural point of view. This foundation will then be extended, elaborated, and refined with a careful study of Ralph Ellison's *Invisible Man*. Topics include "passing" for white, identity, authenticity, social reform, the city as utopia and dystopia, artistic form, and the shadows of the past. The course concludes with an in-depth investigation into the complete poems of Langston Hughes and an exploration of the cultural and historical significance of rap and slam poets.

Breaking the Rules: Voices of Revolution

Books can change the world. In this class we will examine novels, plays, films, essays, and even some television shows that have pushed us to change the ways we see our world and ourselves. We'll also look at the variety of approaches writers and filmmakers use to tell a story – breaking traditional rules and pushing the boundaries by communicating in original, innovative ways. The works will entertain and challenge as we delve into fiction and non-fiction featuring some notable literary rebels and non-conformists. Possible works include *Beloved*, *Slaughterhouse Five*, *Invisible Man*, *The Bonfire of the Vanities*, *Jane Eyre*, *Zeitoun*, *Catch 22*, *Angels in America*, *Twilight Los Angeles*, *Mad Men*, as well as films by Jane Campion, Spike Lee, and Stanley Kubrick.

Creative Writing

This course is an introduction to creative writing in its many forms—short stories, plays, poems, personal narratives, etc. We will read and analyze great pieces of literature while simultaneously working on our own creative writing; students will develop their own literary and artistic sensibilities while grappling with the question of *what makes good writing?* The class will consider fiction, non-fiction, memoir, drama, and poetry as related disciplines, but the year will be divided into units according to these genres. We will discuss issues of voice, imagery, tone, characterization, and the elements of narrative, dramatic, and lyric form. Students will work towards the creation of a multi-genre portfolio that will include workshopped, revised pieces to be considered for publication in literary magazines such as Brunswick's *The Oracle* or Greenwich Academy's *Daedulus*.

The Criminal Mind

Quick: think of a story that *doesn't* have a crime in it. (See, it's harder than you think.) This course will form a jury of sorts as we consider the role of crime committed in works of literature and film, both fiction and non-fiction. We will discuss the nature of crime and the motives of a variety of criminals. We will look at how writers choose to present their criminals and how these choices influence our reactions to them, sometimes in surprising ways. We will consider: Do great stories require great transgressions? Is it more satisfying when a mystery has an artful solution or when it lives on, unsolved, in our hearts and minds? Recent texts have included: *Atonement*, *In Cold Blood*, *In the Lake of the Woods*, *Equus*, *The Talented Mr. Ripley*, and *Glengarry Glen Ross*; films such as *Rope*, *Double Indemnity*, and *L.A. Confidential*; and a mix of classic and contemporary short fiction.

Dudes, Deserts, and Dollars: How American Literature and Culture Envision the West

Ask Easterners what they think of when they think of the American West, and you'll get responses ranging from "empty" to "great skiing" to "California hippies." While some of these impressions may be based on actual experience, more often than not they are rooted in our exposure to cultural artifacts (books, films, art). This class will take a multi-dimensional, multi-discipline approach to a study of the impact of the western frontier (both literal and figurative) on the American psyche as suggested by fine art and photography, literature and non-fiction, and film. Over the course of the year, we will examine the interplay between art and history, paying special attention to how they mutually influence each other. Possible works include those by: Jack London, Mary Austin, Joan Didion, John Steinbeck, John Muir, John McPhee, Louise Erdrich, Edward Abbey, Wallace Stegner, Sherman Alexie, Albert Bierstadt, Georgia O'Keefe, Frederic Church, and Ansel Adams. Possible films include: *Butch Cassidy and the Sundance Kid*, *L.A. Confidential*, *Lone Star*, and *Last of the Mohicans*.

Flappers, Beatniks & Hippies: Literature & Culture in America

"America" has always defined itself as the land of great opportunity and great change. From the romantic dreams of the original settlers to the psychedelic visions of the counter-culture movement; from the disillusioning decades of war and civil unrest to the peaceful images of Woodstock, this country has seen its share of revolution and progress. This course will examine the creation and progression of the American identity, paying particular attention to how writers, artists, and musicians of the 20s, 50s and 60s reacted to and affected that identity. Texts may include: Fitzgerald's short stories, Hemingway's *A Moveable Feast*, Parker's short stories, Kerouac's *On the Road*, Burroughs' *Naked Lunch*, Ginsberg's poetry, *Thompson's Fear and Loathing in Las Vegas*, Kesey's *Sometimes a Great Notion*, Wolfe's *The Electric Kool-Aid Acid Test*

Four Ways to Parnassus

Evidently, there are only "Two Ways to Machu Picchu," but there are many ways to reach a place of profound understanding when exploring the vast, "sacred" world of literature. While a variety of electives focus on how different literary works convey a common theme, this course is guided by how four different English teachers approach reading and interpreting great literature. Each academic quarter during the year will be taught by a different English teacher, and each teacher will select specific works to study during that particular quarter. In essence, this course becomes four different "electives" rolled into one.

Texts may include: Works by John Irving & Charles Dickens, Conrad's *Heart of Darkness*, McCarthy's *The Road*, Pynchon's *The Crying of Lot 49*, DeLillo's *White Noise*, Shakespeare's *Hamlet*, Beckett's *Waiting For Godot*, Chute's *The School on Heart's Content Road*, as well as various screenplays.

Innocents Abroad, Predators at Large: Oceanic Literary Crossings

It has been said that America and England are two nations divided by a common language, and “the pond” has certainly presented a barrier of inscrutability on more than one occasion to interpreters. This course seeks to examine literature written on both sides of the Atlantic and to consider the various problems that arise when authors and their characters cross the liminal divide in order to learn both about their overseas counterparts and, of course, themselves in the process. Some cross to the other side in search of something missing in themselves or their culture, others prey on their innocent misunderstanding. Books may include: James’ *The American*, Conrad’s *Nostromo*, Fitzgerald’s *Tender is the Night*, Evelyn Waugh’s *Brideshead Revisited*, Huxley’s *After Many a Summer Dies the Swan*, Highsmith’s *The Talented Mr. Ripley*, David Mitchell’s *Ghostwritten*, Twain’s *Innocents Abroad*, as well as selections from works by Trollope and Dickens.

Into the Abyss: Exploring the Depths of Humanity

At the heart of the human experience lies a great and trying struggle—a struggle to find hope and meaning in an often dangerous, morally corrupt world. For centuries, writers have created stories that explore this struggle—stories involving characters—young and old, good and evil—who face overwhelming conflicts that test their humanity and expose them to the sometimes harsh, sometimes beautiful truths of the human condition. This course will cover the gamut: from horrible images of human cruelty and defeat to gratifying images of human triumph; from frightening, grotesque tales of madness and dysfunction to heart-wrenching stories of hope and redemption. Each of the works studied in this course will explore the complexities of the human experience and the powerful forces that affect our physical and psychological beings.

Possible works include works by: Poe, Dostoevsky, Stoker, Melville, Conrad, Orwell, Faulkner, Morrison, Steinbeck, Capote, Wolfe, Oates, O’Brien, Miller, O’Neill, Shepard and Mamet. Possible films include: *Apocalypse Now*, *The Dark Knight*, *The Shawshank Redemption*.

Lenses into Literature

Film screens may be shrinking to fit our iPods, but movies have a giant capacity to grip us and to pull us into someone else’s world. What gives movies that power to unsettle and entertain us? How can the best be read as deeply as literary texts? In this course, we’ll read films as original works of art and in connection to screenplays, plays, stories, novels, essays, and interviews. We’ll inquire into aesthetic questions of meaning, quality, and interpretation. We’ll investigate how modern cinema grows out of classical Hollywood style and learn to see what was intended to be invisible.

Expect to write in a variety of forms and to use cameras to compose stories and study film technique. When possible, we’ll supplement class meetings with a trip to a museum, film studio, or theater. This is a course for film buffs as well as for those who want to understand and appreciate more about the history, creative process, and quality of films. Texts for this course have included *Casablanca*, *Annie Hall*, *Do the Right Thing*, *The Maltese Falcon*, *On the Waterfront*, *Hamlet*, *Short Cuts*, *Vertigo*, *Secrets and Lies*, *Lolita*, and *Eternal Sunshine of the Spotless Mind*.

Much Wants More – Literature of the Environment and Consumption

What do we mean when we talk about “the environment”? And how does – or should – our understanding of “the environment” impact our daily decisions? This course and its literature will examine our relationship to the environment from the perspective of how we consume places, food, and stuff. In addition to tracing the development of America’s historical relationship to the land, we will critique – and try out – a variety of options for altering our conception of and connection to the environment. Cooking and gardening projects will supplement an intensive look at food production and consumption. And, through an investigation of current trends in popular culture and advertising, we will reflect upon our habits as consumers of media and buyers of stuff. Though we will consider a variety of texts – the work of journalists and filmmakers, farmers and poets – we will give especial attention to the writings of Michael Pollan, Barbara Kingsolver, Henry David Thoreau, Mary Oliver, and Wendell Berry. Local excursions will provide further opportunities for fieldwork, research, and discussion. Writing for the course will require both personal and critical essay writing, often in combination.

Playing Shakespeare and Beyond

A play exists on the page. A performance exists onstage. These two experiences of Shakespeare's work will form the center of our first semester's work as we read and discuss the Bard's plays and the history of the time from which they sprang. The second semester will attempt to broaden and deepen our exploration, as we branch out to discern Shakespeare's influence on contemporary theatre, and its myriad repercussions on cultural history through time. Throughout the year we will travel to see productions between New York and New Haven, learning how differently various directors can interpret these plays. This class is for students interested in exploring language born of politics and desire, honesty and wit. Renaissance and contemporary text will come to life in the spoken word. Students will perform in class and have opportunities to perform for the school. Further information on the plays to be seen will be circulated to those enrolling in the course as soon as it is available. Students must expect additional charges for tickets and transportation.

Works will include but not be limited to: *The Tempest*, *Twelfth Night*, *Hamlet*, *Waiting for Godot*, *Angels in America*, *Buried Child*, *King Lear*, *The Magic Flute*

World Literature

A survey of the classics of world literature, this course offers students an opportunity to extend their understanding of imaginative writing in a global context. Specifically, this course will invite students to explore cultures different from their own through the discussion of representative literature. Each work selected for the course rewards first reading as well as long study. The course will emphasize the importance of each work to literary history as well as contemporary culture. Along the way, students will continue to hone their close reading and critical thinking skills as they gain a broader understanding of what it means to be a global citizen through the study of literature. Readings may include *The Thousand and One Nights*, *The Bhagavad Gita*, *Madame Bovary*, *The Castle*, *Crime and Punishment*, *Omeros*, and *Don Quixote*.

HISTORY & SOCIAL SCIENCES

The Brunswick and Greenwich Academy History & Social Sciences Departments have developed a curriculum based on the premise that history and humankind are shaped by the past. Therefore, the examination of this past is paramount in preparing for the future. Furthermore, the study of history and the social sciences is critical to understanding the institutions and functioning of human society. At both Brunswick and Greenwich Academy, students develop a core of understanding, learn how to analyze their own and others' opinions and participate in civic and community life as active, informed citizens. Skill at reading, writing and speaking is rigorously promoted throughout the program. Laptop computers are used to allow the students to pursue a more active approach to the study of history and social studies.

Opportunities for pursuing history or social studies beyond credit courses in the classroom are:

- The annual endowed lectures at Greenwich Academy and Brunswick
- The Brunswick/Greenwich Academy *Magazine of History*
- Participation with other schools in Model U. N. programs and Harvard's Model Congress
- The Cliosophic Society at Brunswick; the Current Events Club at Greenwich Academy
- The Greenwich Academy and Brunswick Political Societies
- The World Affairs Forum's annual *Academic World Quest Trivia Contest*

Course Title: WORLD CULTURES: ASIA, AFRICA AND THE MIDDLE EAST
Grade Level: 9th
Prerequisites: None

This required course examines the evolution of culture and the development of civilizations as uniquely human phenomena. It takes a close look at specific societies in Asia, Africa and the Middle East from their earliest stages to modern times. The curriculum deals with institutions and ideas, giving the student the opportunity to explore archeology, anthropology, geography, political systems, economics, social relations, and such cultural aspects as religion, language, literature, art, music, dance, and science. Students use a variety of primary and secondary sources, which hone their reading interpretation and writing skills. Each student is required to write an individual research paper with guidance in the use of specialized library resources and computer searches. Students have the opportunity to work on individual or group presentations and hands-on projects in connection with the cultures studied and to present dramatizations, ethnic menus, music, or visual artwork. Guest speakers, videos, DVD's and Internet sites often enrich the course.

Course Title: EUROPEAN HISTORY
Grade Level: 10th
Prerequisites: None

This required course in European History is designed to provide an understanding of and appreciation for the institutions and ideas of Western Civilization. It focuses on the rise of modern ideologies in politics, economics and culture. Beginning with a brief review Middle Ages as they affected the Renaissance, the first semester curriculum traces the early modern period through the Enlightenment, the French Revolution and the Age of Napoleon. The second semester moves from the Industrial Revolution through the origins of the Cold War, with updates on Post-Cold War changes in Europe. The course stresses the development of political, legal, economic, and social systems, following major trends in religion, philosophy, diplomacy, science, art, literature, and music. Training is provided in basic study skills, analysis of primary and secondary sources, research techniques and essay writing. An analytical research paper is a course requirement.

Course Title: UNITED STATES HISTORY
Grade Level: 11th - 12th
Prerequisites: None

This required course provides a comprehensive study of United States history, encouraging students to think, to write and to speak clearly about many of the fundamental issues in American culture. The scope is broad, moving from the origins of settlement to world responsibilities and pressures of modern times. Topics for study include: New England Puritanism, the meaning of the American Revolution, constitutional issues, the causes of the Civil War, industrialization, immigration, the Gilded Age and Progressive reform, the Women's Movement, the Great Depression, the New Deal, U.S. responses to the Cold War, and the lessons of Vietnam. With the help of maps, original and interpretive sources, as well as technology, students explore American politics, economics, society, and values. Class discussions and debates help develop communication skills and stimulate ideas to be pursued in required student research and writing.

Advanced Placement Courses

APPS - Advanced Placement Prerequisite Statement

Advanced Placement courses in History (European, United States, World and Art), U.S. Government & Politics, Comparative Government, Psychology, Economics and Human Geography are highly demanding. Admission to these courses is dependent upon approval of both the Greenwich Academy and Brunswick History & Social Sciences Departments.

Minimum grade requirements are as follows:

Current **Sophomores and Juniors** *should have* at least a B+ in their current non-A.P. History course or at least a B in their current A.P. History course to be considered for an A.P. course for the following year.

Current **Freshmen** *should have* a straight A for all four quarters AND must be recommended by their current teacher—Rising Sophomores are only eligible for AP European History. Results of a written assessment will help determine placement in the AP European course.

Please note: Rising Seniors are given placement preference over Rising Juniors.

All interested students must complete and submit an application form. The respective department heads evaluate these forms, analyzing both their quantitative and qualitative merits. The criteria for acceptance include the following: the recommendation of the student's most recent history teacher, history grades over the past two years, his or her overall G.P.A., PSAT or SAT scores, total academic and co-curricular commitments and demonstrated evidence of enthusiasm for the subject matter. The final decision is contingent upon successful completion of the candidate's present history course. Students enrolling for any AP course **must take** the AP Examination in that course—even if they have been accepted to college/university. Finally, and especially in the first two quarters of the academic year, students who are performing below the normal standard for any given AP course may be asked to switch to a non-AP elective if their level of effort and/or achievement does not improve over time.

Course Title: A.P. ART HISTORY
Grade Level: 11th - 12th
Prerequisites: Departmental approval (see APPS)

This course explores the history of art through the centuries and prepares students for the A.P. Art History exam in May. It emphasizes the understanding of the role of art in society, the importance of artifacts as evidence of past civilizations, and the formal analysis of art works. The first semester examines the history of art and artifacts from the earliest objects created by humans to the High Renaissance in Europe. The second semester covers art from the Renaissance to the present. There is an emphasis on analyzing primary and secondary sources, as well as on writing interpretive essays. Slides, videos, and Internet sites provide important sources and trips to museums and galleries may complement the curriculum.

Course Title: A.P. COMPARATIVE GOVERNMENT & POLITICS
Grade Level: 11th - 12th
Prerequisites: Departmental approval (see APPS)

AP Comparative Government and Politics will introduce the student to critical issues in contemporary and historical world politics. The course will begin with a conceptual approach to political science through the introduction of themes such as power, political culture, and political organizations and institutions. Students will then use those themes to compare and to contrast the political experiences of specific nations. They will examine Iran, Great Britain, Nigeria, Mexico, Russia and China and identify the characteristics of political systems that both distinguish and unite diverse countries. By the end of the course, students will have a stronger understanding of international issues of globalization, economic and political power, and political institutions.

Course Title: A.P. ECONOMICS
Grade Level: 12th only
Prerequisites: Departmental approval (see APPS)

This college-level course is a survey of both microeconomics (fall) and macroeconomics (spring). Microeconomics concentrates on those principles that relate to the functions of individual decision makers in our economy. Beginning with an understanding of the central economic problem of scarcity, it explores: concepts of opportunity costs and trade-offs; how different types of economies decide what, how, and for whom to produce; comparative advantage in trade; consumer and producer supply and demand interaction, with attention to pure competition, oligopolies, and monopolies, as well as factors such as land, labor, and capital. It also considers the degree of government intervention necessary in our market system and the effect of government taxation and transfer programs on income distribution and economic efficiency. Finally, it examines international economics.

Macroeconomics teaches those principles that apply to an economic system as a whole. To give students a firm foundation, the curriculum begins with an overview of the basics of economics and then moves on to a study of the measurement of economic performance, including trends in such areas as the gross domestic product, inflation, and unemployment. It analyzes national income and the price level, the role of money and banking, and the workings of monetary and fiscal policies to balance the short and long-term unemployment and inflation rates, and the federal budget and the national debt. In May, students take the two-hour A. P. examination on Microeconomics and another two-hour A. P. examination on Macroeconomics.

Course Title: A.P. EUROPEAN HISTORY
Grade Level: 10th - 12th
Prerequisites: Departmental approval (see APPS)

This class is designed to mimic, in both its depth and breadth, an introductory college course in European history. The course content will begin in the late medieval period and culminate with a study of post-Cold War Europe. Throughout the year students will examine the political, economic, social, religious, intellectual, and artistic developments which played, and continue to play, a crucial role in shaping European society and the world beyond. The curriculum prepares students for the AP European History Examination, which asks students to display a solid understanding of the principle themes in European history through multiple choice and free-response essay questions and an ability to work critically with historical documents.

Course Title: A.P. HUMAN GEOGRAPHY
Grade Level: 11th - 12th
Prerequisites: Departmental approval (see APPS)

Human Geography is the study of the patterns and processes of human activity on the earth's surface. People are central to geography in that their activities help shape the earth's surface largely through their interaction with the physical environment. Human settlements and structures are part of that tapestry of interaction. The main areas of study are the nature and perspectives of geography, population, cultural patterns and processes, the political organization of space, agricultural and rural land use, industrialization, economic development and urbanization. Students will also learn about the tools and methods which geographers use in their work. This course prepares students for the A.P. examination in Human Geography given in May.

Course Title: A.P. PSYCHOLOGY
Grade Level: 12th only
Prerequisites: Departmental approval (see APPS)

This course is a standard college introductory psychology course, and it prepares the student for the A.P. Psychology examination in May. Topics include perception, learning, child development, personality, and group behavior. The course features much lab work, a range of computer simulations, and a chance for students to design and perform their own psychological experiments. A strong background in biology or human physiology is highly recommended.

Course Title: A.P. UNITED STATES GOVERNMENT AND POLITICS
Grade Level: 11th - 12th
Prerequisites: Departmental approval (see APPS)

This college-level course prepares the student for the Advanced Placement Exam in United States Government in May. It explores general concepts and specific case studies, providing an understanding of the institutions, groups, and beliefs that make up the nation's political reality. The curriculum includes the study of the constitutional basis of the U. S. government, major political theories and actions, the role of political parties, the interaction of the various branches of national government, and the development of civil liberties. In the final quarter, the students study the structures and politics of local government including the state of Connecticut and the town of Greenwich. An evening trip to a Representative Town Meeting (RTM), town zoning meeting, and/or other town board sessions will complement in-class instruction on all aspects of local governmental functions.

Course Title: A.P. UNITED STATES HISTORY
Grade Level: 11th & 12th
Prerequisites: Departmental approval (see APPS)

The Advanced Placement course in U.S. History presents a college-level survey course to secondary school students. It differs from the regular American History course in that students are expected to perform more independently and analytically than usual and be responsible for a heavier reading load. While the basic content and skills are the same, the course examines in greater depth such areas as political philosophy, intellectual and social movements, foreign policy, and historiography. More time is devoted to the study of primary and interpretive sources and the writing of expository essays. The course prepares students for the Advanced Placement Examination in American History, given in May, which serves as the final exam for the course.

Course Title: A.P. WORLD HISTORY
Grade Level: 11th - 12th
Prerequisites: Departmental approval (see APPS)

A.P. World History seeks to provide a solid understanding of the geographical, political, economic, social and cultural developments which have shaped global history from approximately 8000 B.C.E. to the present. The course focuses on the analysis of five overarching themes, which include the impact of humans interacting with their environment and demographic trends, the influence of cultural trends such as religion and technology, the significance of state- and empire-building, the development of economic systems, and the evolution of social and gender structures. Truly global in nature, the class will examine the regions of Asia, Africa, Europe and the Americas and adhere to the A.P. emphases on comparison, change over time, point of view, and historical context. Student assessments will include periodic tests, projects, and comparative and transitional essays.

ONE-SEMESTER COURSES: FALL

(Please Note: Rising 12's are given placement preference over Rising 11's and 10's)

Course Title: AMERICAN CULTURAL STUDIES—the 1950's, 60's, & 70's
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

This course was designed to delve further into the post-war period in American history with a special emphasis on American culture. Students will learn about the effects of G.I. Bill, the Cold War, and economic boom of the 1950's while also covering trends in music, TV and other new forms of popular culture. The 1960's lessons will focus on the idealism of the Kennedy era, the harsh realities of the Vietnam War and the gains and setbacks of the Black Civil Rights Movement. Time will also be devoted to the counterculture movement leading up to Woodstock. The last portion of the course will examine the controversies surrounding Watergate, the rise of the Feminist movement, **as well as the energy crisis and general economic and social malaise of the late 1970's**. For each decade, one significant piece of literature will be read (Kerouac's *The Dharma Bums*, Freidan's *Feminine Mystique*, and Mahler's *The Bronx is Burning*) while one major film will be shown in its entirety and analyzed for each epoch as well. (*On the Waterfront*, *The Graduate*, and *Kramer vs. Kramer*).

Course Title: CONSTITUTIONAL LAW AND LOGIC
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

The United States Supreme Court faces tough questions involving the fundamental powers of government, the rights of citizens, and the boundaries of liberty. Some of the Court's greatest decisions concerning federal and state governmental power and the liberties of American citizens form the basis of this lively seminar on the law and its judicial applications. Classes are devoted to the argument of cases and the improvement of skills necessary for effective discourse. Students will learn to pull logical conclusions from interesting sets of facts and sometimes-conflicting legal principles. In simulated Supreme Court style, we will decide one major real-life case per week, and students will be required to write three or four short case papers per quarter. To assist understanding of how the actual Supreme Court works, students also will be asked to read *Gideon's Trumpet* by Anthony Lewis.

Course Title: MICROECONOMICS
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

Do you want to know why every decision you make can be made in economic terms? Why the cost of college is a lot more than what is listed in the school's brochures? How to think about investments or personal debt? Microeconomics will explore these questions and more. This course examines the economic motivations of individuals, firms, and governments. Students are introduced to the laws of supply and demand, competitive and monopolistic markets, legal structures of firms, stock and bond markets, and personal financial management concepts. Daily discussions about current economic events, participation in a stock market simulation exercise, and films relate economic theory to the real world. Course requirements include tests and quizzes, short group presentations, and daily class participation.

Course Title: MILITARY HISTORY I: FACTORS IN WAR
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

This semester course examines the experience of men in combat through the lens of particular battles, such as Agincourt, Waterloo, Antietam, the Battle of the Bulge, and Khe Sanh. Conditions that affect warfare, such as weather, terrain, and generalship, are investigated using the particular battles as examples. In addition, the roles that geography, politics, tactics, strategy and culture played in the great battles of the past will be analyzed. Movies, video documentaries, and laptop resources on the Web will be used extensively, and the syllabus will be tailored to examine battles of particular interest to the students in the course.

Course Title: MODERN MIDDLE EAST
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

This course is an introduction to the history, politics and culture of the modern Middle East (West Asia and North Africa). Beginning with the origins of Islam, students will study the great pre-modern empires, their collapse under European pressures, the flourishing of Middle Eastern culture during the eighteenth and nineteenth centuries, and the move toward independent states in the nineteenth and twentieth centuries. Most importantly, through this examination of Middle Eastern history and culture, with a focus on the region since 1945, students will gain a more complete understanding of the current issues and conflicts affecting areas within the region and beyond.

Course Title: PERSUASION, PROPAGANDA, AND THE MEDIA
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

The first half of this course examines the techniques used by those who wish to convert us to their views or sell us something, ranging from the speeches of Hitler to the practices of the Tupperware party. The second portion of the course examines the media domains in which such persuasion practices are used. We study the portrayal of race and gender, investigate the techniques of advertisers, and consider the degree of violence on TV and the amount of truth in the news. Students keep media journals, write weekly papers, conduct field research (comparing, for example, the coffee marketing strategies of Starbucks and Dunkin' Donuts), and view feature films (e.g., *Bowling for Columbine*, *The Truman Show*).

ONE-SEMESTER COURSES: SPRING

(Please Note: Rising 12's are given placement preference over Rising 11's and 10's)

Course Title: ARCHITECTURE
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

This seminar explores the creation of buildings, towns and cities to encourage an awareness and appreciation of our human-created environments. The course provides a basic understanding of the structural, functional, societal, psychological, and aesthetic aspects of architecture. Students will create virtual or 3-D architectural models and will develop class presentations on a variety of building types and on the lives of individual architects.

Course Title: GENOCIDE & HUMAN BEHAVIOR
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

This course asks students to connect history to the moral dilemmas inherent in the study of violence, racism, and genocide. For students, the voyage begins with an exploration of the complex issues around individual identity, starting with such questions as: Who am I? How do I define myself? How do I define others? The journey then broadens to an exploration of identity as it relates to groups and nations. How does a nation define itself? Who decides who belongs and who does not fit in to a nation's citizenry?

With the above foundation, students then learn how issues of identity and membership, inclusion and exclusion, played out at various moments in history including: The Armenian Genocide, The Eugenics Movement (including mass sterilization) in America, The Holocaust, the chaos in the former Yugoslavia, the havoc in Kurdish Iraq, the massacres of Rwanda, the "Killing Fields" of Cambodia and the current tensions in the Darfur region of the Sudan.

Focusing on the role of the individual in history, students then consider the question: Who was responsible? Discussions, presentation projects, and reflective writing assignments will make up the core requirements of the course. Films, novels, music, web research, and guest lecturers will supplement traditional teaching methods.

Course Title: MACROECONOMICS
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: Not required, but Microeconomics is recommended

What is happening in our economy? What strategies are at our government's disposal to address economic problems? How will their efforts affect you? Macroeconomics examines these questions through the introduction of basic economic theories and concepts, including classical and Keynesian models, budget and trade deficits, unemployment issues, growth and inflation trade-offs, and international capital, money and product flows. Students will examine "real" world events to reinforce textbook concepts and will have a chance to participate in a stock market investment simulation exercise. Other course requirements include a spring term project, group and individual presentations, quizzes and tests, and daily active class participation.

Course Title: MILITARY HISTORY II: WARFARE THROUGHOUT HISTORY
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: Not required, but Military History I is recommended

This semester course examines the history of warfare from earliest times to the present day. Civilizations and armies throughout history will be studied, and their wars will be analyzed in the light of the roles of geography, politics, tactics, strategy and culture. The armies of the Ancient Greeks, Romans, Mongols, Samurai, Zulus, and Napoleon will receive special attention, as will the American Civil War, World Wars I and II, and naval warfare throughout history. The factors discussed in the first semester course will be related to all of the battles. Movies, video documentaries, and laptop resources on the Web will be used extensively, and the syllabus will be tailored to examine battles of particular interest to the students in the course.

Course Title: PSYCHOLOGY: PERSONALITY
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

This course in personality seeks to answer two fundamental and related questions: "What makes me an individual" and "Why do I think, feel, and act as I do?" The class defines personality, traces its development over the life cycle, and compares various approaches to its study (with special emphasis on the work of Sigmund Freud). Students make extensive use of case histories to illustrate units on coping mechanisms, illnesses, and society's treatment of the "insane." The course culminates in a detailed psychohistory, including discussion of personality dynamics and diagnosis involving a famous figure of the student's own choosing (from da Vinci to Disney, Michelangelo to Madonna).

Course Title: SOCIAL JUSTICE
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

This elective seeks to help students understand the complexity of numerous social issues in American society; emphasize the importance of civic responsibility and citizenship; encourage students to draw connections between historical events and public policy; and empower students to develop viable solutions to real social problems. This course will examine three topical and timely issues facing Americans including: hunger/food insecurity, health care, and the public education system. Special attention will be paid to the actual realities associated with responding to these issues. Approximately 10 hours of service is required in one of the three focus areas covered in class.

Course Title: WHAT IF? - Crucial “Might-Have-Beens” in American History
Grade Level: 10th - 12th (For 10th graders, concurrent with required European History course)
Prerequisites: None

What if Great Britain and the colonies had reconciled and there had been no American Revolution, or if Pickett’s Charge at Gettysburg had succeeded or if John Wilkes Booth had not been able to assassinate Abraham Lincoln? What would have happened differently if Theodore Roosevelt had won the election of 1912, or if the Boston Red Sox had changed their minds about selling Babe Ruth to the New York Yankees in 1920? How would our history be changed if the Japanese had decided not to attack the United States at Pearl Harbor in 1941, or if the D-Day invasion of June 6, 1944, had failed, or if the bullets fired at President John Kennedy in 1963 had missed, or if the terrorist plans for September 11, 2001, had been thwarted? This course will examine selected watershed events, asking the question: what if something different had happened? Each quarter, students are asked to write a pair of short “scenario” papers and give an oral presentation based, in part, on assigned readings.

RELIGION & PHILOSOPHY

Since the beginning of recorded history, humans have been engaged in a never-ending search for truth as they try to make sense of their world and their place in it. This search has drawn people of all ages to ask the question: “Is there more to life than what we can see, hear, taste or feel?” As these questions have been posed this search for truth has inevitably drawn the greater part of western civilization to conclude that there must be at least one supreme being who creates, oversees and, in some traditions, directs our lives. Once the early philosophers and religious thinkers drew this conclusion, the foundations of much of what we consider modern thought were established.

To educate the whole boy or girl, as they are becoming men and women, we believe that each student should have the opportunity to learn how our ancestors and our contemporaries have grappled with this search for truth and explore the same questions that have inspired the great religious traditions of our time. The purpose of the Religion and Philosophy Department is to challenge our students to become knowledgeable about the origins of religious and philosophical thought, as it has manifested itself throughout history in the world’s great cultures and religious traditions. Having gained a deeper understanding of the important role religion has played in human history, we will grapple with the question of how these great thoughts and beliefs might be relevant in our time. After establishing a foundation of knowledge about religious thought, as manifested in individual traditions such as Judaism, Islam, Buddhism and Christianity, students will have the opportunity to engage in their own critical evaluation of these great traditions, the roles they have played in history and the influence they are having on our world today.

ONE-SEMESTER COURSES: FALL

Course Title: INTRODUCTION TO PHILOSOPHY I: SOCRATES TO LOCKE
Grade Level: 10th - 12th
Prerequisites: None

The first semester of this full year course will introduce students to the history of Western philosophy, beginning with the ancient Greeks and ending with the Great Empiricists of the 17th century. Students will be introduced to what these great philosophers had to say about topics like metaphysics, epistemology, the problem of evil, and the philosophical roots of ethics. Students will first learn what philosophy is and then be challenged to become philosophers themselves as they learn from the masters how to question and reason. Students will read from the works of ancient and modern writers such as Plato, Aristotle, Aquinas, Kant, Hume, Pascal, Smith and Locke as they grapple with the timeless questions that humans have tried to answer throughout history.

Course Title: BIOETHICS
Grade Level: 10th - 12th
Prerequisites: None

Bioethics is a branch of philosophical and medical inquiry that deals with the ethical implications of biological and medical research. This course will examine many of the challenging questions that arise at the intersection of medicine, ethics, life sciences, biotechnology, politics, and the law. In particular, we will consider such practices as euthanasia, artificial reproduction, organ transplantation, genetically modified foods, research ethics, cloning, veterinary practices, medical confidentiality, and stem cell research. The course begins with a brief overview of ethical theory, and quickly moves on to develop and consider principles relevant to medical practice and bioethics. Students will be expected to apply ethical concepts to individual case studies and current medical literature.

Course Title: GREAT RELIGIOUS LEADERS OF OUR TIME: HOW THEY HAVE CHANGED THE WORLD
Grade Level: 10th - 12th
Prerequisites: None

In this course students will have an opportunity to study the lives of great religious figures of the 20th century such as Mahatma Gandhi, the Dalai Lama, Pope John Paul II, Martin Luther King, Jr., Mother Theresa of Calcutta to name just a few, and glean from their lives and their teachings some of the greatest moral and philosophical lessons of all time. One of the central questions we'll consider in this course is, "What would the world be like today if more had taken their lives seriously and chose to follow their example?"

ONE-SEMESTER COURSES: SPRING

Course Title: INTRODUCTION TO PHILOSOPHY II: KANT TO RUSSELL
Grade Level: 10th - 12th
Prerequisites: None

This course may be taken without *Introduction to Philosophy I* as a pre-requisite, or may be considered a logical continuation of our study in the first semester for students who would like to continue exploring great minds and ideas. Beginning with a brief review of the roots of Philosophical thought in ancient Greece, we will then continue where we left off in *Philosophy I* by considering the ideas of more recent thinkers and in the fourth quarter shift our focus to the major philosophical issues that have challenged our world in the 20th and 21st centuries. Our aim will be to consider the thoughts of more recent philosophers - Russell, Ludwig Wittgenstein, Kierkegaard, Heidegger and a few others - who, of course, looked to the ancients for their foundations, and see what they have to offer as we consider historical events such as the World Wars, the Russian Revolution, the Holocaust, the use of atomic weapons, the foundation of the United Nations, the Vietnam War, the collapse of the Soviet Union, the role of philosophical thought in Christian, Jewish, Islamic, and Hindu contexts. We'll discuss how these events have created ever-sharper demands on moral reasoning, political philosophy, and philosophy of religion, as we consider how these thinkers grappled with these issues, hopefully adding a few ideas of our own.

Course Title: FAITH AND REASON: FROM PLATO TO BENEDICT XVI – THE PHILOSOPHICAL ROOTS OF THE SEARCH FOR GOD
Grade Level: 10th - 12th
Prerequisites: None

From Plato's *Allegory of the Cave* to Benedict XVI's now famous (or infamous, depending on your point of view) speech at the *University of Regensburg*, philosophical inquiry has insisted that we depend on reason in our quest for truth. Does a superior being such as God/Allah/Yahweh actually exist, or have religious traditions successfully tricked some of us into believing so? If there is a God, how can we explain the existence of evil in the world? If we are convinced that religious belief makes sense, which of the many creeds or types of religious expression do we consider most "reasonable?" Throughout the history of western thought, many men and women have grappled with these questions. From early ancient Greek thinkers such as Plato and Aristotle to present day thinkers such as Francis Collins, head of the National Human Genome Research Institute who also happens to be a "born again" Christian, and the current Roman Catholic Pope, many religious thinkers have insisted that the only reliable path to truth is by way of the use of our "God given" reason. We'll explore many arguments from these and others for the existence of God and decide for ourselves whether we think these arguments are "reasonable."

Course Title: THE ROLE OF RELIGION IN CONTEMPORARY AMERICA
Grade Level: 10th - 12th
Prerequisites: None

Having been such an important consideration of our Founding Fathers, does, or should, religious thought still play a role in American political, economic and social culture today? If so, what is that role, and does that role depend on which religious faith one embraces. This course will be a survey of the American religious landscape, with a particular emphasis on ways that religious belief has influenced education, family and political life. We will engage in a series of "Opposing Viewpoints" debates as we consider these important questions about what role, if any, religion should play in our public discourse.

MATHEMATICS

BRUNSWICK SCHOOL

The goal of the Brunswick Mathematics Department is to develop in every student a firm grounding in the basic facts and skills, to extend these skills to advanced topics, and to encourage the initiative required for the solution of mathematical problems. The curriculum is flexible; a variety of courses is offered to accommodate the needs of all students, including those who are highly accelerated.

In order to encourage the number sense required in everyday life and to prepare students for the no-calculator sections of future examinations, a substantial amount of pencil-and-paper and mental arithmetic is involved in every course. In addition, technology is used to reinforce concepts and to tackle problems that cannot be solved by other means. Thus, every student is expected to have an approved graphing calculator.

Course Title: **GEOMETRY**
Prerequisites: **Algebra I**

In this course students develop a detailed and analytical understanding of the ideas of shape and space to which they have been introduced in their middle school courses. Complex geometric situations are analyzed on a quantitative level and the ideas of a cohesive argument in the form of mathematical proof are included in the course. Also, the students' algebra skills are maintained and developed through application to geometric problems. The topics in this course include parallel lines and angles, polygons, similarity, the Pythagorean Theorem, areas and volumes, and circle theorems.

Course Title: **HONORS GEOMETRY**
Prerequisites: **Algebra I and departmental approval**

This course covers the same topics as Geometry, but students will encounter more complex problems and proofs. In this way a foundation in deduction and problem-solving is established for students who wish to do high-level mathematical work in future years.

Course Title: **ALGEBRA II**
Prerequisites: **Geometry**

In this course the algebraic understanding established in Algebra I and in Geometry is extended to more advanced topics. The student develops an understanding of abstract ideas such as the nature of functions and through this enhances his powers of analysis and increases his problem-solving ability. Graphing calculators are used to analyze the graphs of more complicated functions and to obtain numerical solutions to complex equations. The topics covered include algebraic modeling, functions and graphs, polynomials, exponential and logarithmic functions, trigonometry, and sequences and series.

Course Title: **HONORS ALGEBRA II**
Prerequisites: **Geometry and departmental approval**

This course covers the same material as Algebra II, but more complex problems are encountered at every stage. By tackling such problems, students extend their minds towards the high level of thinking required in advanced mathematics courses.

Course Title: PRECALCULUS
Prerequisites: Algebra II

This course offers a comprehensive foundation in the advanced mathematical skills and concepts needed to study calculus. New topics are introduced, and subject areas already encountered in Algebra II are covered in greater detail, with more complex problems being encountered at every stage. The topics covered include functions, trigonometry, polynomials, inequalities, exponential functions, logarithms, complex numbers, matrices, sequences and series, and probability.

Course Title: HONORS PRECALCULUS
Prerequisites: Algebra II and departmental approval

This course is designed to provide students with effective preparation for Advanced Placement Calculus and future college-level mathematics and science courses. Throughout the course the development of the student's problem-solving ability is emphasized. The topics covered include functions, graphs, polynomials, exponential functions, logarithms, rational functions, trigonometry, parametric equations, conic sections, polar coordinates, systems of equations and inequalities, vectors, lines and planes in two and three dimensions, sequences, series, mathematical induction, counting principles, and probability.

Course Title: APPLIED CALCULUS
Prerequisites: Precalculus

This course provides students with a practical introduction to calculus. Concepts are presented in an intuitive way and students learn to use advanced problem-solving techniques. The graphing calculator is used to clarify concepts and to produce numerical solutions to calculus problems. Topics include differentiation, applications of the derivative, techniques of differentiation, exponential and logarithmic functions, integration, techniques of integration, and differential equations.

Course Title: A.P. CALCULUS AB
Prerequisites: Honors Precalculus and departmental approval
or A average in Precalculus and departmental approval

An Advanced Placement (AP) course in mathematics consists of a full academic year of work in calculus comparable to that undertaken in colleges and universities. Technology is used by students to confirm written work, facilitate investigations, and assist in interpreting results. The topics covered include functions and graphs, limits and continuity, derivative formulas, the Mean Value Theorem, related rates of change, antiderivatives, differential equations, the Fundamental Theorem of Calculus, the trapezoidal rule, areas between curves, volumes of solids of revolution, and techniques of integration.

Course Title: A.P. CALCULUS BC
Prerequisites: Honors Precalculus and departmental approval

Calculus BC is a full-year course in the calculus of functions of a single variable. In addition to all the topics covered in the Calculus AB course, the BC course covers derivatives of vector functions and parametrically defined functions, the area bounded by polar curves, logistic growth functions, the length of a path, work as an integral, improper integrals, convergence of sequences and series, power series, and Taylor polynomials. Although this course tends to be more demanding since it contains more topics than Calculus AB, both require a similar depth of understanding.

Course Title: A.P. STATISTICS
Prerequisites: Concurrent or completed Honors Precalculus course and departmental approval

This course consists of a full academic year of work in preparation for the Advanced Placement examination. Students learn the techniques of data collection, conduct their own experiments and surveys, and learn how to analyze the results both qualitatively and quantitatively. The TI-83 calculator is used extensively both for data display and for the precise statistical tests used in business, industry, and science. The topics studied include sampling, experimental design, probability, the normal distribution, the t -distribution, the binomial distribution, the chi-squared distribution, the central limit theorem, correlation and regression, confidence intervals, and hypothesis testing.

Course Title: STANFORD ADVANCED MATHEMATICS
Prerequisites: Calculus BC and departmental approval

The Education Program for Gifted Youth (EPGY) at Stanford University provides mathematics courses in a variety of college-level subjects including linear algebra, multivariable calculus, differential equations, and number theory. All of the courses offered correspond to courses regularly taught to Stanford University undergraduates. Students tackle written assignments topic by topic, and are assessed by means of tests provided by the Stanford program. The Brunswick teacher supervising the course provides help with the concepts and problem-solving, and a tutor is available via e-mail to provide any further assistance that might be required. This Brunswick course also provides preparation for the American Mathematics Contest and the American Invitational Mathematics Examination. Those completing EPGY courses may be eligible to receive college credit.

Course Title: HONORS MATH PROBLEM SOLVING
Prerequisites: Honors Algebra II, at least 70 in AMC 12 or 80 in AMC10, and departmental approval

This course should be taken concurrently with Honors Precalculus, AP Calculus, or Stanford Advanced Math, and is designed for students who enjoy mathematical problem solving and would like to develop their ability in that area. It will generally be most suited to students who achieve, roughly speaking, in the upper half of Brunswick's honors math program, though a flair for problem solving is the most important criterion. The tougher problems from the AMC 12 examination will be tackled, and students' scores in that contest (and in the AIME examination for those who qualify) will count towards their grades in this course. The emphasis throughout will be on the development of problem solving skills in mathematical areas where the basics are already known (as opposed to the learning of new mathematical material), and on the building of the confidence, resourcefulness, and intuition that are vital attributes in the most successful math students.

MATHEMATICS

GREENWICH ACADEMY

The department of mathematics at Greenwich Academy is dedicated to helping young women acquire the confidence and the fundamental skills necessary to succeed in mathematics. Students are empowered within the classroom environment to develop literacy and proficiency in mathematics as well as a command of mathematical concepts and problem-solving strategies. With a curriculum grounded in algebra, geometry, calculus and statistics, students develop strong analytical skills that provide a strong foundation for further study in mathematics or math-related courses after high school.

Course Title: ALGEBRA I
Prerequisites: Departmental approval

Algebra I introduces students to graphical and algebraic exploration of linear, quadratic, rational, and radical functions. Students learn various techniques for simplifying and solving linear, polynomial, rational and radical equations both algebraically and graphically. Applications involving data analysis, geometry and trigonometry are also included.

Course Title: GEOMETRY
Prerequisites: Algebra I and departmental approval

Geometry helps students develop a strong spatial understanding as they explore two-dimensional shapes in Euclidean and Cartesian coordinate geometry. Congruence, similarity, transformational geometry, circles and right triangle trigonometry are the core topics of the course. Deductive reasoning is motivated by investigations using *Geometer's Sketchpad* and a review of Algebra I skills is integrated into all applications of the concepts studied.

Course Title: GEOMETRY ACCELERATED
Prerequisites: Algebra I and departmental approval

Geometry accelerated emphasizes the traditional elements of Euclidean geometry. Deductive reasoning is motivated by investigations using *Geometer's Sketchpad*. Students are asked to do some of their learning independently as they test hypotheses and make conclusions based on their work on the computer. In addition to Euclidean geometry (in 3 dimensions), coordinate geometry, translations and right triangle trigonometry are studied in depth.

Course Title: HONORS GEOMETRY
Prerequisites: Algebra I and departmental approval

Honors Geometry assumes that students are ready to think and work independently. It is a lab-based course requiring students to investigate geometric concepts using *Geometer's Sketchpad* as their fundamental tool. Both deductive and inductive reasoning are introduced. In addition to Euclidean geometry, students investigate the Cartesian coordinate plane (linear functions and conic sections), translations, sets, vectors and right triangle trigonometry.

Course Title: ALGEBRA II
Prerequisites: Geometry and departmental approval

The development of strong fundamental understanding of polynomials, rational, radical, and trigonometric functions, and expressions is the foundation of Algebra II. Students learn to solve linear, polynomial, rational and trigonometric equations graphically and algebraically. Students also are introduced to logarithmic and exponential functions and equations.

Course Title: ALGEBRA II ACCELERATED
Prerequisites: Geometry and departmental approval

The development of a strong fundamental understanding of functions, with a focus on polynomial, rational, logarithmic, exponential, trigonometric functions, is the principal objective of Algebra II accelerated. Students learn to use algebraic and graphic techniques as well as technology to solve equations. The ability to work and learn independently is expected for success in this course. Applications of these concepts, including data analysis and simple regression is an integral part of Algebra II Accelerated.

Course Title: HONORS ALGEBRA II
Prerequisites: Geometry and departmental approval

Honors Algebra II exposes students to the algebraic concepts that are prerequisite to Calculus. Students are expected to work with a great deal of independence as they master algebraic manipulation, graphical applications, and problem solving techniques. A thorough development of the polynomial, trigonometric, and logarithmic functions and their inverses highlights the course. Students completing the course successfully are expected to take the SAT II Level I Subject test.

Course Title: PRECALCULUS
Prerequisites: Algebra II and departmental approval

Precalculus is designed to give students a solid algebraic and graphic understanding of polynomial, rational, trigonometric, exponential and logarithmic functions. Probability and statistics are introduced. Upon successful completion of this course, Juniors are expected to take the SAT II Level I Subject Test.

Course Title: PRECALCULUS ACCELERATED
Prerequisites: Algebra II and departmental approval

Precalculus accelerated continues the study of functions begun in Algebra II Accelerated, including polynomial, rational, trigonometric, and exponential functions. In addition, students are exposed to some discrete mathematics, conics, some univariate statistics and the basic concepts of the limit, the derivative and some simple derivative rules. The graphing calculator is an important tool in this process. Students are expected to take the SAT II Level I Subject Test following the completion of the course.

Course Title: PRECALCULUS WITH STATISTICS
Prerequisites: Algebra II and departmental approval

The first half of this course provides the student with a solid foundation in traditional precalculus topics including the functions, their inverses, and their graphs. The focus is primarily polynomial, logarithmic, exponential and trigonometric functions and equations. The second semester of this course provides the background necessary for a college level statistics course. The topics include methods of data collection and graphical displays. Students learn how to choose appropriate methods for summarizing distributions of univariate data. Juniors are expected to take the SAT II Level I Subject Test upon successful completion of this course.

Course Title: HONORS PRECALCULUS
Prerequisites: Algebra II Honors and departmental approval

This course is designed to prepare students for Advanced Placement Calculus as well as further college level study in mathematics. The first semester continues with the study of functions begun in Algebra 2 and introduces students to some discrete mathematics. The second semester focuses on the study of differential calculus. Topics include functions, polynomial and rational functions, trigonometry, parametric equations, polar coordinates, vectors, sequence and series, mathematical induction, and limits and differentiation. Students are expected to take Advanced Placement Calculus BC level following the completion of this course.

Course Title: A. P. CALCULUS GRADE 11 (BC LEVEL)
Prerequisites: A in Honors Algebra II and departmental approval

Calculus BC is a full-year course in the calculus of functions of a single variable. The BC course then explores all applications of limits, continuity, differentiation and integration of polynomial, trigonometric, exponential and logarithmic functions. Vector, polar, and parametrically defined functions are introduced and students apply differentiation and integration techniques to these functions as well. Improper integrals, sequences and series, and Taylor polynomials round out the year's topics. All students in this course will take the BC Calculus Advanced Placement Exam at the end of the class.

Course Title: INTRODUCTION TO CALCULUS (fall)
Prerequisites: Precalculus or departmental approval

Applied Calculus is a fall semester elective course that provides an introduction to differential and integral calculus. Beginning with a review of functions, this course covers the difference quotient and rules of derivatives followed by the applications of the derivative to graphing, rates of change and optimization. Students then investigate techniques of integration, focusing on the Fundamental Theorem of Calculus as applied to areas under the curve, between curves, volumes of solids and accumulations functions.

Course Title: INTRODUCTION TO STATISTICS (spring)
Prerequisites: Precalculus or departmental approval

The goal of this spring semester elective is to help students understand the numerical information presented to them in today's world, to make decisions based on their ability to interpret this numerical information, and to provide students with a background necessary for a college statistics course. This activity-based course introduces basic statistical concepts that help build a foundation applicable to a wide variety of disciplines; topics include the collection and graphical representation of data, normal distribution, bivariate data and inference.

Course Title: A.P. STATISTICS
Prerequisites: Precalculus with Statistics and/or departmental approval

This is the follow-up course to Precalculus with Statistics. It is a college-level course in statistics requiring considerable time, effort, and motivation. The course completes the AP Statistics curriculum studied in the second semester of Precalculus with Statistics. Students quickly review analysis of univariate and bivariate data then study simulation, probability, and statistical inference. All students in this course will take the AP Statistics Exam upon successful completion of this course.

Course Title: A.P. STATISTICS (Y)
Prerequisites: B+ in Algebra II Accelerated or B in Honors Algebra II.

This course consists of a full academic year of work in preparation for the Advanced Placement examination. Students learn the techniques of data collection, conduct their own experiments and surveys, and learn how to analyze the results both qualitatively and quantitatively. The TI-83 calculator is used extensively both for data display and for the precise statistical tests used in business, industry, and science. The topics studied include sampling, experimental design, probability, the normal distribution, the t -distribution, the binomial distribution, the chi-squared distribution, the central limit theorem, correlation and regression, confidence intervals, and hypothesis testing.

Course Title: A.P. CALCULUS (BC level)
Grade Level: 12th
Prerequisites: A.P. Calculus (Grade 11) and departmental approval

Calculus BC is a full-year course in the calculus of functions of a single variable. The course begins with a review of the topics covered in the Calculus AB course. The BC course then explores derivatives of vector functions and parametrically defined functions, area of polar curves, improper integrals, sequences and series, and Taylor polynomials. All students in this course will take the BC Calculus Advanced Placement Exam at the end of the class.

Course Title: STANFORD ADVANCED MATHEMATICS
Prerequisites: Calculus BC and departmental approval

The Education Program for Gifted Youth (EPGY) at Stanford University provides mathematics courses in a variety of college level subjects including linear algebra, multivariate calculus, differential equations, and number theory. Each student works under the supervision of a math department teacher, but the curriculum, problem sets, tutorials, and tests are sent from Stanford University. This is a course for students considering studying higher level mathematics and requires independent study.

Course Title: STATS FOR SPIES: MATHEMATICS OF CRYPTOGRAPHY
Prerequisites: Algebra 2 (honors or accelerated) or Precalculus & Departmental Approval

This is a project-based course that should be taken concurrently with another core mathematics course and focuses on the mathematics of codemaking and codebreaking. Students will learn the history of coding schemes from early substitution coding to sophisticated mathematical encryption algorithms such as those used on the Internet. Students will be assigned projects involving not only codebreaking, but also the design of their own coding schemes based upon the properties of modular arithmetic, matrix operations, and group theory. The mathematics learned will provide a strong foundation for college-level work in algebra and number theory. Computer technology will be an integral part of this course.

COMPUTER SCIENCE

The Computer Science Department provides the skills necessary to enable students to understand the impact of computers and application software as educational tools, as well as the effect of technology on their careers and personal lifestyle.

The Upper School computer curriculum framework reflects the philosophy of providing students with active, hands-on learning experiences that are integrated with the curriculum. It recognizes that computer technology can have a powerful impact on instruction and learning. Department-driven, curriculum-based activities are introduced on a regular basis within each discipline. An emphasis is placed on using tools, applications and simulations in order to accomplish curricular tasks. Individual student laptops enrich classroom activities and provide access to educational resources available online and on campus.

Course Title: INTRODUCTION TO COMPUTER SCIENCE: PROGRAMMING WITH JAVA
(Spring)
Grade Level: 9th – 12th
Prerequisites: None

Students in this semester long course are introduced to the programming language of Java. Fundamental concepts of computer science and programming are developed. Topics include algorithmic design, fundamental programming structures, and object oriented programming. Programming skills and conceptual understanding are developed through a problem solving approach. This class is designed for first-time programmers and as an introduction to the Java programming language and the Advanced Placement Computer Science curriculum.

Course Title: A.P. COMPUTER SCIENCE IN JAVA
Grade Level: 9th – 12th
Prerequisites: Departmental Approval

The curriculum for AP Computer Science is based on the syllabus developed by the College Board. Topics include program design and implementation, algorithm analysis, standard data structures, and object-oriented programming design. AP Computer Science emphasizes programming methodology with an emphasis on problem solving and algorithm development. It is intended to serve both as introductory courses for computer science majors, and for students who will major in disciplines that require significant involvement with computing.

This intensive course provides an introduction to computer science (as opposed to computer programming). A subset of the Java programming language is used throughout to study programming methodology, algorithms, data structures, procedural and data abstraction, and object orientation. Advanced models for reasoning and solving problems are explored. Topics include number systems, Boolean operations, searching, sorting, inheritance and recursion. Emphasis is placed on the design, creation, and verification of proper algorithms and programs; on programming methodology, algorithms, and problem solving - providing students with a hands-on, end-to-end experience of structured, object-oriented programming.

Students aspiring to do well in A.P. Computer Science are strongly encouraged to enroll in the introductory course in Java Programming offered in the spring semester OR as a three week immersion course offered in Brunswick's Summer Session.

SCIENCE

Students are urged to study science during each of their Upper School years and required to complete work in the basic sciences of biology, chemistry, and physics prior to graduation. Our goal is to encourage curiosity, foster a sense of wonder, show the applicability of science in daily life, and provide the student with the background needed to make informed decisions in a world increasingly affected by science and technology.

Brunswick School/Greenwich Academy Science Course Options 2010-2011

	GRADE 9	GRADE 10	GRADES 11 & 12
Regular	Biology	Chemistry	Chemistry
Level		Physics	Physics
		Astronomy (f)	AdvSci: DNA Science (s)
		Bioethics (f)	AdvSci: HumanPhysiology I (f)
		Environmental Science (s)	AdvSci: HumanPhysiology II (s)
		ForensicScience&Investigation (s)	AdvSciOrganicChem (f)
		Geology (s)	AdvSci:Biochemistry (s)
		Microbes,Plagues&HumanDisease (s)	Astronomy (f)
		MolecularGenetics/Microbiology (f)	Bioethics (f)
		Oceanography (f)	EnvironmentalScience (s)
			ForensicScience&Investigation (s)
			Geology (s)
			Microbes,Plagues&HumanDisease (s)
			MolecularGenetics/Microbiology (f)
			Oceanography (f)
Honors	Honors Biology	Honors Chemistry	Honors Physics
Level		Honors Physics	Honors Chemistry
		AP Biology	AP Biology
		AP Environmental Science	AP Chemistry
		Astronomy (f)	AP Environmental Science
		Bioethics (f)	AP Physics B
		ForensicScience&Investigation (s)	AP Physics C
		Geology (s)	AdvSci: DNA Science (s)
		Microbes,Plagues&HumanDisease (s)	AdvSci: HumanPhysiology I (f)
		MolecularGenetics/Microbiology (f)	AdvSci: HumanPhysiology II (s)
		Oceanography (f)	AdvSciOrganicChem (f)
			AdvSci:Biochemistry (s)
			Astronomy (f)
			Bioethics (f)
			EnvironmentalScience (s)
			ForensicScience&Investigation (s)
			Geology (s)
			Microbes,Plagues&HumanDisease (s)
			MolecularGenetics/Microbiology (f)
			Oceanography (f)

Course Title: BIOLOGY
Grade Level: 9th
Prerequisites: None

The goal of this course is to develop an appreciation for the beauty, complexity, and diversity of living systems. However, this course takes a more conceptual approach; with less emphasis on biochemistry, the development of organized study skills is stressed to a greater degree. Laboratory experiments play an integral role in this course.

Course Title: HONORS BIOLOGY
Grade Level: 9th
Prerequisites: B+ in 8th Grade Science and Honors Math concurrently (BWK)
Honors Math or Accelerated Math concurrently (GA)
Departmental approval is necessary in all cases.

The course surveys the major topics of modern biology including biochemistry and cell physiology, genetics, ecology, and evolution. Plant and animal kingdoms are surveyed with an emphasis on the evolutionary development of each kingdom. Significant time is spent on human physiology. Laptops are used for some lab activities as well as for research on the Internet. Interdisciplinary connections are made with other freshmen courses. The goal of the course is to develop an appreciation for the beauty, complexity, and diversity of organisms. Laboratory experiments play an integral role in the course. Upon completion of this course (and with teacher approval), students will take the SAT Subject Test in Biology.

Course Title: CHEMISTRY
Grade Level: 10th – 12th
Prerequisites: Biology

Students will have an overview of the fundamental principles of Chemistry. The course examines the composition of various substances and the changes they can undergo. Major topics are introduced via both classroom work and laboratory experiments and include atomic theory, chemical bonding, stoichiometry, properties of solutions, gas laws, thermodynamics, redox, equilibrium, and acid-base reactions. The course features both qualitative and quantitative analyses of the relationships between variables associated with chemical reactions.

Course Title: HONORS CHEMISTRY
Grade Level: 10th – 12th
Prerequisites: B average in Honors Biology (or A- average in Biology) and
B+ average in Honors Geometry or B in any level Algebra II or
A- in Accelerated Geometry (GA)
B+ average in Honors Geometry or B in any level Algebra II (BWK)
Departmental approval is necessary in all cases.

This course offers a more comprehensive introduction to the fundamental principles of Chemistry. Topics include atomic theory, chemical bonding, stoichiometry, properties of solutions, gas laws, thermodynamics, redox, equilibrium, and acid-base reactions. These topics are covered through both classroom work and laboratory experiments. The course stresses a more quantitative approach to the major topics covered. Upon completion of the course, the student is well-positioned for more advanced courses within the discipline, and is prepared to take the SAT II Subject Test in Chemistry.

Course Title: PHYSICS
Grade Level: 10th – 12th
Prerequisites: Biology

This course presents students with an overview of the fundamental principles of Physics. The course examines the physical world around us and how it works. Major topics include mechanics, thermodynamics, electricity, electromagnetism, sound and light. The course leans more toward the quantitative analysis to show mathematical relationships between variables of the equations. Laboratory experiments are an integral part of the course.

Course Title: HONORS PHYSICS
Grade Level: 10th – 12th
Prerequisites: B in Honors Biology and/or Honors Chemistry or A- in Biology and/or Chemistry, A- in Honors Mathematics and Honors Mathematics concurrently (BWK)
A- in Honors or Acc. Mathematics and Honors Mathematics concurrently (GA)
Departmental approval is necessary in all cases.

In this course the basic topics in physics, such as mechanics, electromagnetism, and the behavior of light, are studied through a hands-on laboratory approach. Students will design and conduct their own experiments throughout year. The course focuses on a math-based, problem-solving approach and prepares students for more advanced courses in the future. Upon completion of the course, students are prepared to take the SAT Subject Test in Physics.

Course Title: A.P. BIOLOGY
Grade Level: 10th – 12th
Prerequisites: B+ in Honors Biology or A- in Biology and departmental approval

This is a rigorous survey course covering major biological topics, including biochemistry, cell biology, genetics, molecular biology, physiology of plants, animals and evolution. Emphasis is placed on thematic relationships between the major topic areas. Sophisticated, college-level labs are an integral part of the course. This course prepares students for the A.P. Biology exam taken in May.

Course Title: A.P. CHEMISTRY
Grade Level: 11th - 12th
Prerequisites: B in Honors Chemistry, B in Honors Algebra II, B+ in Algebra II Acc or A- in Algebra II (GA)
B in Honors Chemistry, B in Honors Algebra II or A- in Algebra II (BWK)
Departmental approval is necessary in all cases.

This intensive college level course pursues in greater depth those topics studied in first year chemistry. In addition, quantitative analysis is included as a significant segment of the full year laboratory program. This course prepares students for the A.P. Chemistry exam taken in May.

Course Title: A.P. PHYSICS B
Grade Level: 11th - 12th
Prerequisites: A- In Honors Physics
A- in Honors Algebra II and Honors Precalculus or taking concurrently (BWK)
A- in Algebra II Honors, Algebra II Accelerated, Precalculus Honors or taking concurrently (GA)
Departmental approval is necessary in all cases.

A mathematically-based college physics course that uses advanced problem-solving techniques. Each of the areas of Honors Physics is again covered but in greater depth and with new topics added. The course is designed to prepare students for the Physics B (non-calculus) A.P. exam.

Course Title: A.P. PHYSICS C
Grade Level: 11th - 12th
Prerequisites: A- in Honors Physics, A.P. Calculus concurrently and departmental approval

In this course, mechanics is studied using a calculus-based approach. All of the topics included on the A.P. Physics C (Mechanics) exam will be covered. Additional topics will be studied through project work and will include strength of materials with applications to engineering, mechanical waves with applications to music and earthquakes, and fluid mechanics. This course is designed to prepare students for the A.P. Physics C exam.

Course Title: A. P. ENVIRONMENTAL SCIENCE
Grade Level: 10th – 12th
Prerequisites: B+ in Honors Biology or A- in Biology and departmental approval

This A. P. course is designed to give college level treatment to the understanding of interrelationships within the natural world, to identify and analyze environmental problems and their relative risks, and to examine potential solutions. Topics include: ecosystem structure and function, population dynamics, renewable and nonrenewable resources, and air, water, and soil pollution. The course is designed to prepare for the A.P. Environmental Studies exam.

ONE SEMESTER COURSES: FALL

Course Title: ADVANCED SCIENCE: HUMAN PHYSIOLOGY I
Grade Level: 11th - 12th
Prerequisites: B in Biology and departmental approval

The overall theme of this course is the human body, its organization, and its physiology. This course is designed as a further study of biology and biochemistry for those students wishing to expand their biological experience and who are possibly considering a pre-medical course of study in college. Beginning with a re-introduction to the body, a navigation of the basic biochemistry of cells and tissues is undertaken to lay a foundation for studying the various systems of the body individually. Systems to be studied include the integumentary, musculoskeletal, nervous (including special senses) and cardiovascular.

This is a laboratory course with experiments and experiences using students themselves as laboratories in addition to dissection opportunities.

Course Title: ADVANCED SCIENCE: ORGANIC CHEMISTRY
Grade Level: 11th - 12th
Prerequisites: B in Honors Chemistry or A in Chemistry and departmental approval

This semester course is centered on the study of the chemistry of carbon and its compounds through a varied approach using problem-solving skills and laboratory experiments. Emphasis will be on the application of principles governing the reactions of carbon compounds. Topics will include bonding, isomerism, hydrocarbons' structures and reactions, and the derivatives of hydrocarbons.

Course Title: ASTRONOMY
Grade Level: 10th – 12th (10th graders must take concurrently with core science course)
Placement preference will be given to rising Juniors and Seniors.
Prerequisites: Two years of science (second year can be concurrent) and departmental approval

This semester course provides an introduction to the universe and incorporates the most recent discoveries in astronomy. Topics include: planets, the sun, comets, meteors, stars, supernovas, black holes, galaxies, the origin of the universe, and life on other worlds. Lab work includes some telescope sessions and the use of astronomical laptop computer programs.

Course Title: BIOETHICS
Grade Level: 10th – 12th (10th graders must take concurrently with core science course)
Placement preference will be given to rising Juniors and Seniors.
Prerequisites: Biology

Bioethics is a branch of inquiry that deals with the ethical implications of biological and medical research. This course will examine many of the challenging questions that arise at the intersection of medicine, ethics, biotechnology, politics, and the law. In particular, we will consider such practices as euthanasia, organ transplantation, GM foods, cloning, and stem cell research. Students will be expected to apply ethical concepts to individual case studies and current medical literature, and to convey their understanding of these issues through a series of argumentative essays.

Course Title: MOLECULAR GENETICS / MICROBIOLOGY
Grade Level: 10th – 12th (10th graders must take concurrently with core science course)
Placement preference will be given to rising Juniors and Seniors.
Prerequisites: Biology

This investigative class is a “must” for students interested in pursuing science in college and beyond. Medical training for future physicians, nurses, physician assistants, researchers and related fields must include an understanding of genetics, inheritance and disease-causing microorganisms. A study of bacteria, viruses, protozoans as well as the transmission and pathophysiology of disease is a fascinating topic for any student interested in these medical fields. The course is discussion and laboratory based and includes a full survey of the importance and pathological relevance of DNA and RNA. Laboratory techniques will be utilized to study the inheritance patterns of microorganisms as well as invasion strategies and the immunological “hide and seek” that newer variants and mutants display.

Course Title: OCEANOGRAPHY
Grade Level: 10th – 12th (10th graders must take concurrently with core science course)
Placement preference will be given to rising Juniors and Seniors.
Prerequisites: B in Biology, two years of science (second year can be concurrent) and departmental approval

This one-semester course examines the physical and biological aspects of the marine environment. Topics include the geography of the ocean, how the oceans influence the Earth’s climate, marine environments, marine ecology, and marine life. As part of the course students will design and conduct their own research project either in the field or in the classroom. Students also participate in field excursions to Greenwich Point. While this aspect of the class is not required, it is recommended for students to get first-hand experience with the marine environment and types of living things found in Long Island Sound. Sophomores are able to register for this course; however, they must do so along with a full-year science course.

ONE SEMESTER COURSES: SPRING

Course Title: ADVANCED SCIENCE: BIOCHEMISTRY
Grade Level: 11th - 12th
Prerequisites: B in Honors Chemistry or A in Chemistry and departmental approval

This semester course is designed to study the chemistry of molecules that are the basis for life. The course work encompasses both classroom and laboratory components. Topics include the structures and metabolism of carbohydrates, lipids, nucleic acids and proteins. Selected aspects of hormonal control of metabolic pathways will also be discussed.

Course Title: ADVANCED SCIENCE: DNA SCIENCE
Grade Level: 11th - 12th
Prerequisites: B in Honors Chemistry or A in Chemistry, B in Honors Biology

DNA Science is a semester elective that will focus on the structure and function of DNA in the life of a eukaryotic cell. This is a lab-based course that will include the cloning and characterization of a particular gene involved in regulation of the cell cycle from a model plant system. The practical applications of as well as the theory behind lab techniques will be covered as part of the course. Much of the students' class time will be spent in the lab therefore; students will be expected to keep a detailed lab notebook that will account for a portion of the course grade. The course will culminate with students presenting their research findings in paper and poster format. Students who want to be successful in the course will demonstrate an interest in the topic, an ability to ask thoughtful questions and work with some autonomy.

Course Title: ADVANCED SCIENCE: HUMAN PHYSIOLOGY II
Grade Level: 11th - 12th
Prerequisites: B in Biology and departmental approval
Human Physiology I is NOT a prerequisite for this course.

The overall theme of this course is the human body, its organization, and its physiology. This course is designed as a further study of biology and biochemistry for those students wishing to expand their biological experience and who are possibly considering a pre-medical course of study in college. Beginning with a re-introduction to the body, a navigation of the basic biochemistry of cells and tissues is undertaken to lay a foundation for studying the various systems of the body individually. Systems to be studied include the respiratory, urinary, digestion, immune and endocrine.

This is a laboratory course with experiments and experiences using students themselves as laboratories in addition to dissection opportunities.

Course Title: ENVIRONMENTAL SCIENCE
Grade Level: 10th - 12th (10h graders must take concurrently with core science course)
Placement preference will be given to rising Juniors and Seniors.
Prerequisites: B in Biology, two years of science (second year can be concurrent) and departmental approval

This one-semester course examines pertinent environmental issues. Topics include paleo-climate change, modern climate change, energy and green engineering. Students will participate in conducting an energy audit of a school building and will design their own "green" building. Sophomores are able to register for this course, however, they must do so along with a full-year science course.

Course Title: FORENSIC SCIENCE & INVESTIGATION
Grade Level: 10th – 12th (10th graders must take currently with core science course)
Prerequisites: Placement preference will be given to rising Juniors and Seniors.
Biology

The huge explosion in literature and television programming surrounding the incredible field of forensic science is explored in this course. Beginning with a historical look at the development of forensics and modern techniques, we will learn the basis for forensic study and tools as well as utilizing the methods ourselves in laboratory investigations. Topics that we will cover include, but are not limited to, fingerprinting, blood analysis, direct and microscopic investigation of crime scenes, DNA collection and analysis, ballistics and toxicology. Famous cases and famous forensic investigators are studied as a backdrop for learning the scientific steps beyond modern forensic advancements. The popularity of TV shows like *CSI*, *Bones*, *House*, *MD*, *NCIS* and the like as well as authors Patricia Cornwell, Jeffrey Deaver, and Michael Crichton is utilized to showcase what is an absolutely fascinating branch of science.

Course Title: GEOLOGY
Grade Level: 10th – 12th (10th graders must take concurrently with core science course)
Prerequisites: Placement preference will be given to rising Juniors and Seniors.
Two years of science (second year can be concurrent) and departmental approval

This semester course provides an overview of the geological processes that take place daily on earth. Topics include: volcanoes, earthquakes, tsunamis, mountains, glaciers, deserts, rivers, shorelines, rocks and minerals, the structure of the earth, and plate tectonics. Special emphasis is given to the dinosaur period and the geologic history of New England.

Course Title: MICROBES, PLAGUES AND HUMAN DISEASE
Grade Level: 10th – 12th (10th graders must take concurrently with core science course)
Prerequisites: Placement preference will be given to rising Juniors and Seniors.
Biology

Would you volunteer to sit in a room with blankets that were used by patients who developed and died of Yellow Fever to test the method of transmission? Would you drink a vial of live bacteria to prove whether or not the organism caused disease? Would you volunteer to let mosquitos bite you to help figure out if they can carry a deadly disease?

In this introductory class, students will learn about different viruses and microbes that have had impacts on humans throughout history. This course is designed for students at all levels of interest. We will cover interesting historical stories and biological information for each disease. The topics will include, but are not limited to, the Black Plagues, yellow fever, poliomyelitis, smallpox, ebola, mad cow disease, MRSA, bird flu, AIDS and swine flu. We will also cover entry-level human immunology, how vaccinations work, different medications for the diseases and any current topics that may break during the semester.

MODERN FOREIGN LANGUAGES

In the required levels of a chosen language (through level III), all four language skills are equally stressed: listening, speaking, reading and writing. Emphasis is placed on the acquisition of vocabulary, the fundamentals of grammar and on the development of cultural awareness, sensitivity and appreciation.

All classes are conducted in the target language; the use of English is kept to a minimum. One goal is to enable students to interact linguistically and culturally with native speakers at the highest level of proficiency. Additionally, we strive to provide our students with a strong foundation so that they can pursue their study of language in college and beyond.

Classes are designed to provide optimal learning experiences for all students. Audio-visual materials are used frequently in the classroom throughout the program to strengthen students' language skills, to provide them with immersion experiences and to present culturally authentic material.

After students complete their requirement for graduation, they are encouraged to pursue their language studies through more advanced courses. Students may elect to study more than one language on either campus. Final decision about the placement of students is made by the department heads on both campuses.

Brunswick School and Greenwich Academy sponsor a variety of study abroad options which give students the opportunity to discover new cultures and, in most cases, speak the foreign language they study in full immersion with homestay programs. The Brunswick Summer School is also an option for those wishing to gauge their interest in a new language. Please consult the schools' websites for more information on these exciting, educational opportunities.

ARABIC

Course Title: ARABIC I
Grade Level: 9th - 11th
Prerequisites: None

This beginning course is an introduction to Modern Standard Arabic. Students learn the fundamentals of beginning Arabic such as the alphabet, handwriting, and correct pronunciation of Arabic letters. Students become familiar and comfortable with the sounds and the structure of the language. A variety of activities are used to develop the four language skills: listening, speaking, reading and writing. Grammar is introduced towards the end of this course. The curriculum is based on *Al-Kitaab* series. In Arabic I we start with *Alif Baa, Introduction to the Arabic Alphabet*, and *Al-Kitaab, A Textbook for Beginning Arabic*. Cultural aspects are presented through videos and Internet materials. Students are introduced to the ancient art of Arabic calligraphy.

Course Title: ARABIC II
Prerequisites: Minimum grade of C in Arabic I and departmental approval

This is the continuation of Arabic I. Students begin to learn more complex aspects of the language, such as grammar and reading comprehension as they develop listening and oral proficiency. In addition to using the textbook, students are introduced to a variety of Arabic language resources such as videos, radio programs, newspapers, and Internet sites. Students become more familiar with the different cultures of the Arab world.

Course Title: ARABIC III
Prerequisites: Minimum grade of C in Arabic II and departmental approval

This course expands the students' knowledge of vocabulary and grammar, as they continue to develop their oral proficiency and reading/listening comprehension. Students improve writing skills by writing essays and short stories. Literature and poems are introduced during the second semester of this course. Students read excerpts of classic and modern Arabic poems. They are also introduced to some of the famous modern and classic Arabic poets and writers.

Course Title: ARABIC IV
Prerequisites: Minimum grade of C in Arabic III and departmental approval

In this course, students will expand their knowledge of grammar, continue learning new vocabulary, and improve their knowledge of Arabic literature. The students will learn about various well-known dialects of Arabic and gain more knowledge about the culture of various Arabic-speaking countries. For the first time students will be exposed to what is known in Arab culture as 'The Seventh Art', which is cinema. Students will learn about the Arabic film industry and television entertainment world. They will learn about famous Arab actors and actresses, film-makers and famous film producers. Students will also learn about the music industry and famous Arab singers, including the French-influenced Rai music of Morocco and Algeria, the most popular pop music of Egypt and Lebanon, and the traditional Eastern-influenced music of the Arabian peninsula. Thus, while gaining a better knowledge of the Arabic language, the students will become familiar with the pop culture of the Middle East, as well as its traditions and history. Students will be encouraged and expected to explore Arabic films, music, and literature on their own and share materials with the class. Upon completion of this course, the students will feel comfortable speaking the language and making connections to Arabic culture.

Course Title: ARABIC IV HONORS
Prerequisites: Minimum grade of A- in Arabic III and departmental approval

This rigorous course builds upon the skills established in previous years of studying Arabic. It is for linguistically strong students who are ready and eager to work at an accelerated pace. In this course students will be able to concentrate on several different areas of the language including more in-depth examinations of Arabic literature and the broadening of one's oral and aural comprehension to include different dialects from across the Arabic speaking world. The reading and memorizing of famous poems from the pre-Islamic, Islamic and modern eras will be complemented by the students attempt at writing their own poems. Another area of concentration during this course will be Arabic media, such as modern day television programs, newspapers, and radio. Students will learn about different vocabulary and practice expressions germane to Arabic journalism while writing articles about current events affecting all parts of the globe. After completing this course, students will have obtained an advanced level of proficiency that will allow them to excel both in their travels abroad and during their undergraduate studies in college.

CHINESE

Course Title: CHINESE I
Grade Level: 9th - 11th
Prerequisites: None

This course is for those students who wish to begin their study of Chinese. Initially, spoken Chinese is taught in the Pinyin system of Roman letters, while the written word is taught in simplified characters. Early emphasis is placed on developing listening and speaking skills. Instruction in Chinese word processing with computers begins very early to reinforce correct phonetic spellings and teach character recognition early. As the students' comprehension and pronunciation become more solidly established, additional attention is given to reading and writing. Students focus on learning to recognize different structures of character compositions so writing is tested later in the year. Integral to this course is the study of Chinese culture and students learn about brush writing, calligraphy, art, cooking and Taiji. By year's end, the students' study of approximately 300 characters will enable them to begin reading and typing simple texts or stories in Chinese.

Course Title: CHINESE II
Prerequisites: Minimum grade of C in Chinese I and departmental approval

This course aims at further developing the skills that were established in Chinese I. Basic material is reviewed and expanded upon, enabling students to advance their knowledge of Chinese grammar in the cultural context of daily life in China. Speaking and listening skills continue to be stressed, and writing in Chinese characters is now mandatory. Chinese word processing enables students to read and express themselves in writing in Chinese.

Course Title: CHINESE II Honors
Prerequisites: Minimum grade of B+ in Chinese I and departmental approval

This demanding language course is designed for those students who have excelled in Chinese I and wish to work at an accelerated pace on their language skills. Material from the first year is reviewed and then greatly expanded upon, enabling students to advance their knowledge of Chinese grammar in the cultural context of daily life in China. Many different skills will be developed during the course of the year: students will learn how to read and write short passages on familiar and personal topics; Chinese characters will continue to be taught and Chinese word processing on the computer will be a mandatory skill; speaking and listening skills will be a constant source of classroom activity. The goal is that by the end of the year students are able to engage in casual conversation, are comfortable writing and reading, and have greatly enhanced their knowledge of Chinese culture. The study of brush writing, calligraphy, art, and Chinese cooking will also be covered.

Course Title: CHINESE III / IV
Prerequisites: Minimum grade of C in prior level and departmental approval

This course expands and refines the students' foundation in Chinese language and culture. New grammar, vocabulary and characters are introduced then extensively practiced in class, using a wide variety of instructional techniques and material. Continued Word processing in Chinese provides students with a useful tool to express themselves with greater ease when preparing written assignments. The development of stronger listening and speaking skills remains a priority.

Course Title: CHINESE III / IV HONORS
Prerequisites: Minimum grade of B+ in prior level and departmental approval

In this accelerated course, linguistically strong students are encouraged to hone their reading, writing, word processing, listening and speaking skills in Chinese. Writing assignments involving both writing and typing are given frequently in order to help students communicate constructively and creatively. Previously learned concepts and textbook materials are significantly expanded through introductory expository speaking that begins the process of mastering new grammar patterns and creative ways of describing realistic situations, people, character, locations, etc. Varied aspects of Chinese culture and history are used as topics for reading and class discussion.

Course title: A.P. CHINESE LANGUAGE and CULTURE
Prerequisites: Minimum grade of B+ in Chinese IV Honors and department approval

This course conforms to the standards and expectations as described in the College Board curriculum for AP Chinese Language and Culture. Its aim is to provide students with ongoing and varied opportunities to further develop their proficiencies across the full range of language skills within a cultural frame of reference reflecting the richness of Chinese language and culture. The course introduces students to frequently used formal and idiomatic expressions as well as popular and colloquial phrases. Students study Chinese poetry and literature, and they experience culture through the study of Chinese history, art, traditions, newspaper articles, and current events. They also prepare lengthy essays on a wide range of topics. This course culminates in the Advanced Placement Chinese and Culture Exam given in May, which must be taken by all students enrolled in this class.

FRENCH

Course Title: FRENCH I
Grade Level: 9th - 11th
Prerequisites: None

This course is for those students who wish to begin their study of French in the Upper School. It is designed to provide students with foundational skills in reading, writing, speaking and understanding spoken French. A basal text provides grammar and cultural studies, while reading and writing skills developed through the use of a variety of documents (poems, surveys, and passages from literature) and media (films).

Course Title: FRENCH II
Prerequisites: Minimum grade of C- in French I and departmental approval

Students in this course continue to develop their foundational skills in French. New grammar and vocabulary are presented then extensively practiced in class, using a wide variety of instructional techniques and material. Speaking, listening, reading and writing skills are solidified as students role play, do group work and prepare oral presentations. Additionally, reading and writing skills are developed in contexts that provide students with insights into the richly varied cultures of the French-speaking world.

Course Title: FRENCH II HONORS
Prerequisites: Minimum grade of A- in French I and departmental approval

This rigorous course builds upon the skills established in French I. It is for linguistically strong students who are ready and eager to work at an accelerated pace. New grammar and vocabulary are introduced using a wide variety of instructional techniques and material. Speaking, listening, reading and writing skills are solidified as students role play, do group work and prepare oral presentations. Additionally, reading and writing skills are developed in contexts that provide students with insights into the rich diversity of the French-speaking world. As their level of French language sophistication increases, the students are asked to produce incrementally more complex projects on the Francophone cultures they study.

Course Title: FRENCH III
Prerequisites: Minimum grade of C- in French II and departmental approval

This course expands and refines the students' foundation in French language and Francophone culture. New grammar and vocabulary are introduced then extensively practiced in class, using a wide variety of instructional techniques and material. Speaking, listening, reading and writing skills are solidified as students role play, do group work, prepare oral presentations or work with on-line or local digital resources, and read short stories and/or articles on current events. In addition to the language, students will study customs, traditions and histories of French-speaking nations and regions so that their knowledge of French is embedded in cultural understanding.

Course Title: FRENCH III HONORS
Prerequisites: Minimum grade of B+ in French II Honors and departmental approval

This course is designed to begin perfecting the language skills necessary for highly proficient oral and written communication. The finer points of grammar are reviewed, strengthened and clarified. Discussions and compositions, which provide opportunities for self-expression, are based on Francophone current events and literature through a range of possibilities: on-line and local digital resources, newspaper articles, extracts, short stories, and the like. Students develop their listening and speaking skills through the frequent use of recorded activities as well as through a wide variety of class activities. Students further broaden their cultural foundation through Internet projects and exploration.

Course Title: FRENCH IV: Language and Culture
Prerequisites: Minimum grade of C in French III and departmental approval

This is a conversation and culture course. Communication skills are developed via the exploration of the varied cultures of the French-speaking world. Films, on-line and local digital resources, short stories and other documents all provide the basis for vocabulary expansion and class discussions. The core curriculum concerning grammar review and expansion is augmented by a wide variety of topics relevant to the French-speaking world. A key factor to success in this highly interactive course is the student's commitment to active participation in all class activities.

Course Title: FRENCH IV HONORS: Contemporary Francophone Cultural and Social Issues
Prerequisites: Minimum grade of B+ in French III Honors and departmental approval

In this pre-A.P. language course, the finer points of French grammar are reviewed, strengthened and clarified. Students discuss examples of contemporary Francophone cultural and social issues. Discussions and compositions based on current publications provide the students with opportunities for independent self-expression. Students develop their listening skills through the frequent use of taped activities. Students make recordings and do a wide variety of class exercises to improve their speaking ability. Films and on-line or local digital resources enhance listening skills and culture study.

Course Title: FRENCH V: A Cultural Survey
Prerequisites: Minimum grade of C in French IV and departmental approval

The goal of this course is to provide students with more opportunities to further their French language skills via in-depth study of different cultural aspects of the French-speaking world. Possible themes might include cinema, different literary genres or current cultural trends. Vocabulary and grammar are introduced or reviewed based on the needs of the group. Films, on-line and local digital resources, short stories and other documents can all provide the basis for vocabulary expansion and class discussions. Practical use of the French language is emphasized, and students are given the opportunity to use their skills in paired activities, role-plays, and oral presentations. A key factor to success in this highly interactive course is the student's commitment to active participation in all class activities.

Course Title: A.P. FRENCH LANGUAGE
Prerequisites: Minimum grade of B+ in French IV Honors and departmental approval

The goals of this course conform to the standards and expectations described in the College Board curriculum for A.P. French Language. Equal emphasis is placed on perfecting all four language communication skills - reading, writing, listening and speaking. Students review and refine their mastery of French grammar so that they are able to apply what they have learned to express themselves accurately coherently in varied situations. The richness of Francophone culture is imbedded in all activities. Films, stories and current articles are viewed and read to serve as a springboard for discussions, debates and compositions. Students also endeavor to broaden their active vocabulary and to become comfortable using a variety of tenses and idiomatic expressions both when writing and speaking. This course culminates in the Advanced Placement French Language Exam given in May, which must be taken by all students enrolled in this class.

Course Title: HONORS FRENCH SEMINAR
Grade levels: 11th and 12th
Prerequisites: Departmental approval

Subtitled, 'Liberty, Doubt and Disobedience', this course is a historical survey of the French spirit, from the Renaissance to today. Although France and the United States have always been staunch defenders of liberty, the word does not mean the same thing on both sides of the Atlantic. One of the working premises of this course is that doubting and disobeying are what make French culture so irritating, yet also so valuable.

The reading list will include fiction, plays, essays and poems in addition to the viewing of several films. Given the amount and difficulty of the readings, preparation for class will be demanding and time-consuming. Much like an Advanced Placement course, students will be expected to write frequent essays on subjects generated by the readings in class. In addition to analytical prose, they will be challenged to try their hand at creative writing.

ITALIAN

Course Title: ITALIAN I
Grade Level: 9th - 11th
Prerequisites: none

This course is for those students who wish to begin their study of Italian. Students make use of a complete program, supported by audio, video and computer resources, that enables them to develop a strong foundation in the language and culture of Italy. Meaningful communication and the establishment of a strong grammatical foundation in Italian are goals of this course. Additionally, reading and writing skills are developed in contexts that provide students with insights into Italian culture.

Course Title: ITALIAN II
Prerequisites: Minimum of C- in Italian I and departmental approval

Italian II is a continuation of Italian I. The program continues to combine a traditional approach to learning a language with the best in new technology, including an interactive CD-ROM and on-line audio programs. New topics in grammar will be introduced, beginning with reflexive verbs and going through an introduction to the subjunctive. Emphasis is placed on communication skills, both oral and written. The whole course is tied in to discussions of Italian culture, which is essential to learn the Italian language.

Course Title: ITALIAN II HONORS
Prerequisites: Minimum grade of A- in Italian I and departmental approval

This rigorous course builds upon Italian I. It is for students who have strong linguistic ability and who are eager to work at a rapid pace. The goal of the program is to develop their communication skills with conversation, role-plays, written assignments, readings and listening comprehension exercises to enable the student to develop strong skills. The relationship between Italian language and culture is integral to the course.

Course Title: ITALIAN III
Prerequisites: Minimum grade of C- in Italian II and departmental approval

This course expands and refines the students' foundation in Italian language and culture. New grammar and vocabulary are introduced then extensively practiced in class, using a wide variety of instructional techniques and material. Speaking, listening, reading and writing skills are solidified as students role-play, do group work, prepare oral presentations using on-line or local digital resources and read short stories and/or articles on current events. In addition to the language, students will study specific customs, traditions and history of Italy so that their knowledge of Italian is embedded in cultural understanding.

Course Title: ITALIAN III HONORS
Prerequisites: Minimum grade of B+ in Italian II Honors and departmental approval

This course is designed to begin perfecting the language skills necessary for highly proficient oral and written communication. The finer points of grammar are reviewed, strengthened and clarified. Discussions and compositions, which provide opportunities for self-expression, are based on Italian current events and literature through a range of possibilities: on-line and local digital resources newspaper articles, extracts, short stories, and the like. Students develop their listening and speaking skills through the frequent use of taped and recorded activities as well as through a wide variety of class activities. Students further broaden their cultural foundation through Internet projects and exploration.

Course Title: ITALIAN IV: Language and Culture
Prerequisites: Minimum grade of C in Italian III and departmental approval

This is a conversation and culture course. Communication skills are developed via the exploration of the rich Italian culture. Films, on-line and local digital resources, short stories and other documents all provide the basis for vocabulary expansion and class discussions. The core curriculum concerning grammar review and expansion is augmented by a wide variety of topics relevant to Italy - past and present. A key factor to success in this highly interactive course is the student's commitment to active participation in all class activities.

Course Title: ITALIAN IV HONORS
Prerequisites: Minimum grade of B+ in Italian III Honors and departmental approval

In this advanced language course, the finer points of Italian grammar are reviewed, strengthened and clarified. Students discuss contemporary cultural and social issues in Italy basing that work on current publications and media. Students develop their listening skills through the frequent use of taped activities. Students make recordings and do a wide variety of class exercises to improve their speaking ability. Films, on-line and local digital resources enhance listening skills and culture study.

SPANISH

Course Title: SPANISH I
Grade Level: 9th - 11th
Prerequisites: None

This course is for those students who wish to begin their study of Spanish in the Upper School. Students make use of video and audio resources, as well as the textbook, to explore basic grammar and vocabulary. These first steps in the Spanish language are supported by a variety of written and oral-aural exercises. Meaningful communication is the natural goal of the course, with strong emphasis on the mastery of basic grammar needed to progress in the language. Reading and writing are developed in contexts that provide students with insights into the cultures of the Spanish-speaking world.

Course Title: SPANISH II
Prerequisites: Minimum grade of C- in Spanish I and departmental approval

Students in this course continue to develop their foundational skills in Spanish. New grammar and vocabulary are introduced then extensively practiced in class, using a wide variety of instructional techniques and material. Speaking, listening, reading and writing skills are solidified as students role-play, do group work and prepare oral presentations. Additionally, reading and writing skills are developed in contexts that provide students with insights into the cultural richness of the Hispanic world.

Course Title: SPANISH II HONORS
Prerequisites: Minimum grade of A- in Spanish I and departmental approval

This rigorous course builds upon the skills established in Spanish I. It is for linguistically strong students who are ready and eager to work at an accelerated pace. The program continues to introduce new grammar and vocabulary through a wide variety of instructional techniques and material. Speaking, listening, reading and writing skills are expanded as students role-play, do group work and prepare oral presentations. Additionally, reading and writing skills are developed in contexts that provide students with insights into the rich cultural tapestry of the Spanish-speaking world. As their level of Spanish language sophistication increases, the students are asked to produce incrementally more complex projects on the cultures they study.

Course Title: SPANISH III
Prerequisites: Minimum grade of C- in Spanish II and departmental approval

This course expands and refines the students' foundation in Spanish language and Hispanic culture. The first quarter is a review of material studied in the first two years. New grammar and vocabulary are introduced thematically then extensively practiced in class, using a wide variety of instructional techniques and material. Speaking, listening, reading and writing skills are solidified as students practice at several websites, do group work, prepare oral presentations, and begin to explore the written language through level-appropriate literary selections and newspaper articles. In addition to the language, students will study customs, traditions, and histories of Spanish-speaking nations and regions so that their knowledge of Spanish is embedded in cultural understanding.

Course Title: SPANISH III HONORS
Prerequisites: Minimum grade of B+ in Spanish II Honors and departmental approval

This course is designed to begin perfecting the language skills necessary for highly proficient oral and written communication. The finer points of grammar are reviewed, strengthened and clarified. In addition the reading and comprehension of short stories from Hispanic literature are introduced. Students also practice writing longer compositions on a variety of topics and give various oral presentations throughout the year. Listening skills are developed through the frequent use of taped and recorded activities. The study of culture is an integral portion of this course.

Course Title: SPANISH IV: Language and Culture
Prerequisites: Minimum grade of C in Spanish III and departmental approval

This is a conversation and culture course. Earlier language skills are reviewed and expanded with renewed emphasis on broad cultural themes within the Spanish-speaking world. Films, Podcasts, research on the Internet, short stories and other documents all provide the basis for vocabulary expansion and class discussions. The core curriculum concerning grammar review and expansion is augmented by a wide variety of topics relevant to the Spanish-speaking world. A key factor to success in this highly interactive course is the student's commitment to active participation in all class activities.

Course Title: SPANISH IV HONORS
Prerequisites: Minimum grade of B+ in Spanish III Honors and departmental approval

Advanced grammar and composition are two key elements of this pre-AP language course. Topics for discussion and written work are based on social, political, and economic texts in addition to the literature and art which represent the richness and variety of the Spanish-speaking world. Listening and speaking skills continue to be stressed and honed through class discussions, paired activities and group work. Appropriate sites on the Internet and Spanish-language films are all incorporated into the course to give students ample exposure to and practice with Spanish spoken not only in Spain, but also in Central and South America. This wide variety of media also enables the students to study in depth the cultures of the countries where Spanish is spoken.

Course Title: SPANISH V: Panorama of Hispanic Culture, Language, Arts and Literature
Prerequisites: Minimum grade of C in Spanish IV and departmental approval

This year-long course will be team-taught by two Spanish teachers, one from Greenwich Academy and the other from Brunswick School. One semester will focus on a cultural exploration into the Hispanic souls of Spain, Mexico and Argentina. This segment of the course will take a close look at selected moments in these nations' history, short texts from their literature, and classic movies from their cinematic heritage. Reading may include selections by Rosa Montero, Miguel de Unamunon, Borges, Octavio Paz or others. *¡Ay, Carmela!*, *Como agua para chocolate*, and *Diarios de una Motocicleta* are among the films that may be studied. The other semester's focus will emphasize a cultural journey through Spain. Students will travel through time by exploring the beauty of peninsular architecture, Spanish artists from El Greco to Dalí and some of the greatest works ever written, including *Don Quijote de la Mancha* and/or *Don Juan Tenorio*. Throughout the year, students will expand upon their linguistic skills in Spanish as they are guided through the rich tableau of Hispanic culture, language, arts and literature.

Course Title: SPANISH V HONORS: Hispanic Civilization and Culture through Film and Fiction.
Prerequisites: Minimum grade of B+ in Spanish III Honors and departmental approval

This team-taught course (one semester at Greenwich Academy and the other semester at Brunswick) will expose students to some of the finest films of the Spanish cinema and some of the greatest literary works of the Spanish language. Classic films such as *El Abuelo*, *Cría*, *La lengua de las mariposas*, and *All About my mother* will be viewed and discussed at length in class. In addition, short stories, poetry, and novellas from the likes of Cervantes, García-Lorca, Borges, García-Márquez, Allende, and Matute will provide a backdrop to the culture and history of both Spain and South America. In this rigorous course, on both campuses students will be required to read, write, and converse in Spanish on the materials presented. Assignments will include nightly reading, in-class oral presentations, power point presentations, and essays analyzing the films and literature.

Course Title: A.P. SPANISH LANGUAGE
Prerequisites: Minimum grade of B+ in Spanish IV Honors and departmental approval

This course conforms to the standards and expectations as described in the College Board curriculum for AP Spanish Language. Equal emphasis is placed on perfecting all four language communication skills: reading, writing, listening and speaking. Students review and refine their mastery of Spanish grammar. They further develop their writing and speaking skills to be able to express themselves in a clearly developed, organized, and accurate manner. Short stories and current articles are read and Spanish and Latin American films are viewed in order to serve as a springboard for discussions, debates and compositions. This course is conducted primarily in Spanish, and ends with the Advanced Placement Spanish Language exam given in May. All students enrolled in this course must take this exam.

Course Title: A.P. SPANISH LITERATURE
Prerequisites: Minimum score of 4 on AP Spanish Language exam and departmental approval

Following the prescribed Advanced Placement syllabus, this course offers the advanced Spanish student a remarkable overview of Spanish and Hispanic literature from medieval times through present day. The list of approximately 60 works from more than 35 authors, containing poems, plays, short stories and novels, is demanding. Students are required to write frequent essays and participate in active class discussions. Part of the preparation for the AP Spanish Literature Exam, which students must take in May, is a "real" 3-hour and 10 minute examination given at mid-year.

CLASSICS

LATIN

In Levels I through Advanced Placement, the goal is to encourage Latin students to become involved first-hand with the Classics by acquiring the ability to read standard Latin authors with competence and appreciation.

Understanding of the social and political history of the ancient Romans, along with related topics in Greco-Roman mythology, religion, and literature, is developed. The Classics Department promotes the additional benefits gained from the study of Latin, such as a sharper insight into the grammar of other languages including English, and the acquisition of English vocabulary.

The Latin program emphasizes a reading approach to the study of the language: students begin reading simple Latin passages immediately upon starting the first year. Continuous attention to derivatives enables students to develop their vocabulary; due emphasis on grammar, memorization of forms, and word study equips the students with the necessary tools to understand and appreciate classical literature. As their facility with the syntax and vocabulary of Latin increases, they read authentic pieces of Latin literature of increasing complexity.

Course Title: LATIN I
Grade Level: 9th - 11th
Prerequisites: None

This course is a standard introductory course to Latin. The emphasis will be on learning basic forms and grammatical concepts. There will be applications of what is learned in grammar to translation of simple passages from Latin to English. An introduction to Latin composition will round out the course.

Course Title: LATIN II
Prerequisites: Minimum grade of C- in Latin I

This course has two primary objectives: first, to solidify the student's foundation of Latin grammar; and second, to build upon it a broader structure for the reading of Latin authors. Advanced grammatical concepts to be introduced in this course include indirect statement and the forms and uses of both participles and the subjunctive. Continued emphasis is placed on the enhancement of sight translation skills and the development of an awareness of the historical context for the language itself. Time permitting, students may read selections from Caesar's *Gallic War* in the spring term.

Course Title: LATIN II HONORS
Prerequisites: Minimum grade of B+ in Latin I and departmental approval

This course is for those students who have completed Latin I in either the Middle School or in Upper School and have shown themselves to be strong students, achieving a B+ grade or better in Latin I. All essentials of Latin grammar are completed by April. The rest of the year is devoted to advanced grammar topics and reading in Caesar's *Gallic War*. The instruction in this course follows a tight schedule, and the student should be prepared for the rigorous pace of the course.

Course Title: LATIN III
Prerequisites: Minimum grade of C- in Latin II and departmental approval

This course begins with an intensive review of grammar and syntax as well as practice in writing English to Latin as a means of furthering the student's understanding of the language. Selected readings include mythology, Caesar, Pliny, Cicero and an introduction to poetry. Students develop an appreciation of the authors' styles and an understanding of Roman history and culture through the readings. Many of the Latin readings encourage exploration of political, philosophical, and ethical issues that are in the news today.

Course Title: LATIN III HONORS
Prerequisites: Minimum grade of B+ in Latin II Honors and departmental approval

This is a rigorous third year Latin course that prepares students for the AP Latin courses. While there is constant grammar review and Latin composition exercises, the main part of the course is given to deepening translation skills, using classical Latin authors. The main authors read are Pliny and Cicero, the latter occupying the greatest part of the syllabus. The last third of the year is devoted to an introduction to Latin poetry and to post-Classical prose. Discussion of translations always includes aspects of Roman culture and thought contained in the readings and their influence on the intellectual history of the West.

ELECTIVE COURSES IN THE CLASSICAL LANGUAGES

Course Title: LATIN IV
Prerequisites: Minimum grade of C in Latin III and departmental approval

This rigorous course is for students who want to continue their course of study in Latin but who are not ready for the rigid demands, requirements and time schedule of an AP course. The readings done in the course will vary from year to year and will include the Classical Tradition as well as the literature of later Latin. The class discussions of the ideas presented in the readings form an integral part of this course, especially as these ideas relate to the humanistic culture of the West. Grammar review of special topics is also included in the course.

Course Title: A.P. VERGIL
Prerequisites: Departmental approval

This is an introduction to the work of Vergil, Rome's epic poet, particularly his *Aeneid*, seen as the classic story of the wanderings and trials that led to the development of Augustan Rome. We follow the Advanced Placement curriculum by reading in Latin excerpts from Books I, II, IV, VI, X, and XII and the entire *Aeneid* in English. Emphasis is on the meaning of the epic for the political and religious assumptions of Rome at the end of the first century BC. Much work is done in analyzing the meter and rhetorical devices used by the poet, through which we attempt to appreciate the grand style of which Vergil was master. **This course is offered in alternate years.**

Course Title: ADVANCED LATIN STUDIES
Prerequisites: Departmental approval

Advanced Latin Studies is a fourth year Latin course for those who have successfully completed an AP Latin course. Readings from several Latin authors will make up the text of the course, with a concentration on Classical authors but also drawing from medieval and renaissance texts as well. The first semester will concentrate on selected poems of Catullus, selections from Ovid's *Metamorphoses* and Cicero's *De Officiis*. The second semester will focus on later Latin authors such as Bede, Aquinas, Thomas More and Boccaccio. In addition to tests and exams, seminar presentations and a major paper will be required. Entrance into this course requires the recommendation of the student's AP instructor.

Course Title: HONORS LATIN SEMINAR
Rome Reborn: Renaissance Literature, Art and Architecture
Grade Level: 12th
Prerequisites: Departmental approval

This course is an intensive study of the traditions in Roman literature, art and architecture and their influence upon great and enduring works from the Renaissance. Central topics include Humanism, *imitatio*, classical and Renaissance historiography, ancient sources for Europe and the West, Roman rhetoric and the plastic and visual arts. Authors include Virgil, Ovid, Horace, Seneca, Vitruvius, Petrarch (Latin poetry), Shakespeare, Ascham, Jonson, Marvell and Milton. Artists include Botticelli, Bronzino and Michelangelo and architects Palladio and Wren.

Course Title: GREEK I
Prerequisites: Departmental approval

This course combines a study of basic Attic grammar and syntax with efforts to gain a reasonable facility in reading Greek and in translating from English to Greek (the text will be Balme and Lawall's Oxford series, *Athenaze*). This is intended as an intensive course, equivalent to a first year college course, and will be most successful if the student already is familiar with the basic structure and grammar of Latin.

Course Title: GREEK II
Prerequisites: Minimum grade of B+ in Greek I and departmental approval

As a continuation of Greek I, this course reviews and continues the examination of Greek grammar and syntax using the second volume of Balme and Lawall's Oxford series, *Athenaze*. This is supplemented with annotated readings from Plato's *Apology* and Sophokles's *Oedipus Tyrannus*. One of the goals of this course is to reach a level of familiarity with the Greek language to enable students to take the National Greek examination, which is sponsored by the American Classical League.

The first half of this course includes the study of the political, social and cultural history of Greece from Homer to 146 B.C. Topics include: the Age of Homer, rise of Sparta and Athens, Athenian democracy and imperialism, and Hellenism. Also included is a survey of ancient Greek literature and art from the earliest times through Alexander the Great. There will be emphasis on Minoan and Mycenaean civilizations, the era of the Persian Wars and the Periclean Age of Athens. The second half of the course focuses on the political, social and cultural history of Rome from 509 B.C. to the Fall of the Empire. It will examine the rise of the Roman Republic, expansion and imperialism, Roman society and culture, and the Roman legacy to the West. A survey of the art and literature of the late Republic and early Empire is also included.

FINE AND PERFORMING ARTS

Participation in the Arts encourages us to react to, record and share our impressions of the world. The goal of the Arts Departments of Brunswick School and Greenwich Academy is to enable students to experience, understand, and enjoy the Visual and Performing Arts, including studio art, dance, music, speech and theater.

The program encourages individual creative expression, the development of specific skills in each area, communication with the public through exhibitions and performances, and appreciation of all art forms. Courses provide a recognition of the role of the Arts in history and in the culture of our world.

The departments require of all students a minimum of one year's participation in any of the Arts areas. In addition, students are welcome to participate in a variety of co-curricular dance, music and theater performances, and arts clubs.

VISUAL ARTS

In studio art classes, students are guided to fulfill their individual potential by acquiring and developing skills and techniques in a variety of media, including the resources of new kinds of technology, while solving problems and thinking creatively. They learn to communicate their ideas and emotions in an original, personal style. Aesthetics, art history, art criticism, and contemporary developments are introduced in classes and through field trips, visiting artists, and exhibitions by professionals or by the students themselves.

Course Title: ART FOUNDATIONS
Grade Level: 9th
Prerequisites: None

The course emphasizes the fundamentals of fine art techniques including drawing, painting, printmaking, computer graphics, ceramics, sculpture. Important art concepts as composition, perspective, and color theory are introduced. The course challenges each student to think critically and creatively, be original, and to experiment with a variety of materials. Students work from observation, memory, imagination, and personal expression toward styles that express their own vision. They are exposed to historical and contemporary art through visits to museums and galleries, slide presentations, and visits from professional guest artists. A sketchbook for developing designs, a museum visit and a portfolio review are all part of the course.

Course Title: CERAMICS
Grade Level: 9th - 12th
Prerequisites: None

The course offers an interesting, varied, and exciting introduction to one of the oldest art forms known to the artist, ceramics. Clay has a unique plastic quality that changes dramatically when exposed to heat. This course is designed to introduce the student to a broad range of ceramic techniques and processes, including throwing and hand building processes, slips, glazes and decoration styles, and firing. We encourage students to develop themes and topics for themselves. A sketchbook for developing design ideas, a museum visit, and a portfolio review are all part of the course.

Course Title: VIDEO PRODUCTION
Grade Level: 9th - 12th
Prerequisites: None

This course focuses on the development of introductory video production skills. Students will learn to write and storyboard a script, then shoot and edit footage to make five short videos over the course of the year. Students will be learning how to work with digital cameras (Sony VX2000) manually and how to edit with Final Cut Pro HD. Discussion and application of techniques such as camera frame, continuity, mise en scène, and montage will be addressed. Students will also learn how to use microphones and three-point lighting technique. Both feature and short films will be screened as related to assignments. This class will be offered during the same block as (and will work in conjunction with) the Acting for Film class. Student actors (in the Acting for Film class) will collaborate with the filmmakers from our class on several projects. In the spring, students will have the opportunity to screen their videos at the GA/Brunswick Video Assembly.

Course Title: COMPUTER GRAPHICS
Grade Level: 9th – 12th
Prerequisites: None

This course offers the opportunity for students to develop and explore the unlimited design and visual communication possibilities that computers have to offer. The class will cover the use of computers and cameras as tools of the artist, photographer, graphic designer, product designer, and web designer. The goal of the class is to explore computer technology and use it to foster creative thinking as an artist's tool and as a way to enhance the visual clarity and style of any design work. Students will be working with a variety of modern design software, and will adapt to the frequent changes occurring in the fields of computers and interactive media. Hardware includes computers, slide and flatbed scanners, digital cameras, color laser printers and the Internet. There may be some cross-curricular exploration with other arts classes as well.

Course Title: ADVANCED STUDIO
Grade Level: 10th - 11th
Prerequisites: Arts Foundations or departmental approval

This course offers a varied development of broad range art techniques and processes. The course covers all the major disciplines in art including drawing, design, painting, computer graphics, ceramics, textiles, printmaking, and a wide range of sculptural techniques. The projects and themes are very open, leaving as much scope for individual learning as possible. Students are encouraged to develop their own personal themes and topics. A sketchbook for developing design ideas, museum visits, work with guest artists and a portfolio review are important aspects of the course.

Course Title: ADVANCED STUDIO: CERAMICS/FORM AND FUNCTION
Grade Level: 10th - 12th
Prerequisites: None

The course offers a wide variety of clay-building methods used by artists, such as pinch, coil, slab and wheel throwing and combination techniques. These forms will be enhanced through the use of glaze, slip and painting techniques plus other materials, decoration-styles and firing processes. Students are encouraged to develop a personal artistic direction based on their development of skills and familiarity with current and historical trends in the use of clay as an art medium. Students will develop a portfolio of ceramic pieces that can be used in the Breadth Section of the A.P. Portfolio in Three-Dimensional Design.

Course Title: ADVANCED STUDIO: CERAMICS/CERAMIC SCULPTURE
Grade Level: 10th - 12th
Prerequisites: None

This course is designed for second-year Ceramics students to advance their range of ceramic techniques and processes, including throwing and hand building, slips, glazes and decoration styles, and firing. They also explore working with different mediums like wire, wood, and plaster with their clay elements. The students are asked to be more independent in the choosing of the themes and topics of the works. The course is built as a lead-in to the Advanced Placement studio courses. Assessment is based on the breadth and quality of the portfolio.

Course Title: ADVANCED STUDIO: VIDEO PRODUCTION
Grade Level: 9th - 12th
Prerequisites: Video Production

This course offers students the opportunity to further develop their video production and editing skills. Focus will be on more advanced levels of editing with Final Cut Pro HD including working with motion effects, audio effects, and more advanced tool bar edits. More time will also be spent exploring the range of manually operating the camera in terms of white balance, exposure and shutter speed. Students will develop, script and produce two short films per semester. Both feature and short films will be screened for inspiration. In the spring, students will have the opportunity to share their final videos at the GA/Brunswick Video Assembly. Students will also be encouraged to submit their work to nationwide youth film festivals.

Course Title: ADVANCED STUDIO: COMPUTER GRAPHICS
Grade Level: 10th - 12th
Prerequisites: Computer Graphics

This course offers the opportunity for students who have already taken the computer graphics class to explore this art form at a more advanced level. Students will be working with a variety of modern design software and will adapt to the frequent changes occurring in the fields of computers and interactive media. The class will cover the use of computers and cameras as tools of the artist, photographer, graphic designer, product designer, and web designer. Hardware includes computers, slide and flatbed scanners, digital cameras, color laser printers and the Internet. There may be some cross-curricular exploration with other arts classes as well. By the end of this class, students will be expected to produce work meant for a college portfolio or an Advanced Placement concentration. The concentration is a focused body of work exploring a personal, central interest as intensively as possible.

Course Title: HONORS VIDEO PRODUCTION
Grade Level: 10th - 12th
Prerequisites: Advanced Video Production or Introduction to Video Production-with permission of instructor

This class will provide an opportunity for students who are serious about filmmaking to continue producing their work at a higher and more personal level. With the guidance of the teacher, students will determine a direction for their individual creative pursuit. All filmmakers will be creating two original shorts in the first half of the year, and one longer work in the spring. Students will assist each other on projects as is required. Much time will be dedicated to developing script ideas and translating these to screen format. Casting professional actors from off campus will be an option as needed. Regular screenings of pertinent films should be expected. Preparation of individual film reels for college review will be going on throughout the year.

Course Title: A.P. STUDIO ART: DRAWING PORTFOLIO
Grade Level: 11th - 12th
Prerequisites: Departmental approval

The drawing portfolio is designed to address a broad interpretation of drawing issues and media. Light and shade, line quality, rendering of form, composition, surface manipulation and illusion of depth are drawing issues that can be addressed through a variety of means. Many works of painting, printmaking and mixed media as well as abstract, observations and inventive works may qualify. The goal of the class is to address drawing issues, and also to develop a concentration, which is a body of related works based on an individual's interest in a particular idea expressed visually. It focuses on a process of investigation, growth, and discovery.

Course Title: A.P. STUDIO ART: 2-D DESIGN PORTFOLIO
Grade Level: 11th - 12th
Prerequisites: Departmental approval

The two-dimensional design portfolio is intended to address a very broad interpretation of two-dimensional (2-D) design issues. This type of design involves purposeful decision-making about how to use the elements and principles of art in an integrative way. The elements of design (line, shape, illusion of space, illusion of motion, pattern, texture, value and color) are like a palette of possibilities that artists use to express themselves. The principles of design help guide artists in making decisions about how to organize the elements on a picture plane in order to communicate content. In addition to general work in 2-D design, a concentration is required for the course. A concentration is a body of related works based on an individual's interest in a particular idea expressed visually. It focuses on a process of investigation, growth and discovery. This portfolio can include the use of advanced technology, digital photography, computer art, computer graphics, graphic design, collage, typography, product design, fabric design, weaving, illustration, drawing, painting, printmaking, etc.

Course Title: A.P. STUDIO ART: 3-D DESIGN PORTFOLIO
Grade Level: 11th - 12th
Prerequisites: Departmental approval

The three-dimensional design portfolio is intended to address a broad interpretation of sculptural issues in depth and space. These may include mass, volume, form, plane, light, and texture. Such elements and concepts may be articulated through additive, subtractive, and/or fabrication processes. A variety of approaches to representation, abstraction, and expression may be part of the student's portfolio. These might include traditional sculpture, architectural models, apparel, ceramics, three-dimensional fiber arts or metal work, among others. A concentration of works based on an individual's interest in a particular idea expressed visually is required.

Course Title: A.P. ART HISTORY (See the History section for a full course description.)

Course Title: ARCHITECTURE & DESIGN (fall)
Grade Level: 10th – 12th
Prerequisites: None

This course is a practical look at architecture through drawing, design and construction using a variety of different media. It is structured to develop an understanding and ability to use representational media to visualize, document, investigate and present intentions within the graphic language of architectural communication. Students will be introduced to computer programs Google *SketchUp* and *AutoCad* which allow the development of design ideas and presentation. This course culminates with a series of three- dimensional explorations.

Course Title: ARCHITECTURE (spring)
Grade Level: 11th - 12th
Prerequisites: One year of studio art or permission of the instructor

This seminar explores the creation of buildings, towns and cities to encourage an awareness and appreciation of our human-created environments. The course provides a basic understanding of the structural, functional, societal, psychological, and aesthetic aspects of architecture. Students will create virtual or 3-D architectural models and will develop class presentations on a variety of building types and on the lives of individual architects.

Course Title: INDEPENDENT STUDY: STUDIO ART/HONORS
Grade Level: 11th - 12th
Prerequisites: Departmental approval

The Independent Course of Study in Studio Art is intended for highly motivated students who have already completed an Advanced Placement Studio Art portfolio and would like to pursue a specific direction in their studio work. While the creation of artwork in this course is not constrained by AP parameters, students are nonetheless expected to display the same dedication and effort that was essential in their Advanced Placement course. An independent study requires the commitment of a faculty member to serve as a mentor/teacher, but students may also work with other teachers in various disciplines as they develop their thematic ideas and technical skills. A culminating exhibition of artworks is expected from all participants.

Students interested in pursuing an independent study in art must submit a written proposal for approval by the Department Heads committee.

PERFORMING ARTS

MUSIC

The Music Departments of Brunswick School and Greenwich Academy offer students the opportunity to perform in a variety of ensembles, both choral and instrumental. Traditional and contemporary literature is studied and performed in school concerts as well as performances off campus. Non-performance classes are also offered, including AP Music Theory and Recording Studio.

In the choral and instrumental groups the goal is to educate students in the rudiments of music in order to be literate and proficient in reading and performing from various historical periods and musical styles. The vast choral repertoire for male, female and mixed voices is explored. Students perform classical music, jazz, and multicultural repertoire as they become proficient in the fundamentals of their instrument and experience the joy of playing in an ensemble.

There are a number of opportunities for instrumental musicians at the Academy and Brunswick. Brass, woodwind, guitar and percussion students may play in large and small ensembles, from chamber music to auditioned jazz groups such as the Blue Notes. String students are encouraged to play in the Orchestra and in recitals. Private lessons are offered on all instruments as well as in piano and voice.

INSTRUMENTAL MUSIC

Course Title: JAZZ BAND
Grade Level: 9th
Prerequisites: Departmental approval

This course is designed to help students increase their skills and playing technique learned in middle school on their individual instrument and to increase their knowledge and understanding of music, both historically and theoretically. Students will study a variety of musical styles within the jazz idiom. The students will perform as soloists, as small ensembles as well as with the Jazz Band.

Course Title: ADVANCED JAZZ BAND
Grade Level: 9th - 12th
Prerequisites: Departmental approval

This course is an instrumental class aimed at training students for selection in our honors ensembles and a continuation of the study begun in Jazz Band. Instrumentation consists of all woodwind and brass instruments as well as piano guitar, bass and drums. A student must have at least one year of upper school experience on their instrument in order to be in this class. Emphasis will be placed on increasing the student's skill and technique as well as learning a variety of styles of music including jazz, rock, blues and pop. This ensemble performs at all major concerts.

Course Title: BLUE NOTES – HONORS JAZZ BAND
Grade Level: 9th - 12th
Prerequisites: Departmental approval

The Blue Notes, Brunswick's premiere jazz ensemble, provides an opportunity for highly motivated students to participate in an outstanding performing ensemble. Often called upon to play on both campuses and in the Greenwich community, the Blue Notes enjoy numerous performance opportunities. In June of 2011, the Blue Notes will travel to Europe on an international music tour. A variety of music is learned in the popular genres of jazz, swing, rock, funk, Latin and rhythm and blues. Auditions are held in the spring for the following school year.

Course Title: ORCHESTRA
Grade Level: 9th - 12th
Prerequisites: Departmental approval

The GA'Wick orchestra class provides an opportunity for string, woodwind and brass instrumentalists to play in an orchestral ensemble. The orchestra will perform a variety of repertoire ranging from classical music to contemporary music. Requirements of the course include intermediate to advanced playing skills.

Course Title: GUITAR ENSEMBLE
Grade Level: 9th - 12th
Prerequisites: Departmental approval

Guitar Ensemble is offered to students on both campuses who wish to learn to play the acoustic guitar or would like to increase their acoustic guitar playing skills. An emphasis is placed on learning to read music, understanding music theory and appreciating the art of music by learning the guitar. A variety of music is studied, from the Renaissance and classical periods to folk music, to the popular music of today. Various ensembles emerge from this class and have the opportunity to perform at several venues throughout the year. Previous experience is encouraged, but not required for this course. Guitar Ensemble fulfills the arts requirement.

Course Title: ADVANCED GUITAR ENSEMBLE
Grade Level: 10th - 12th
Prerequisites: Guitar Ensemble I or departmental approval

Advanced Guitar Ensemble is offered to students on both campuses who wish to increase their acoustic guitar playing skills beyond what is learned in Guitar Ensemble. The prerequisite for this course is Guitar Ensemble or approval by the department. Instruction includes advanced chords, power chords, finger-style picking, syncopations, dotted rhythms, pentatonic scales, improvising tablature, riffs, licks and examples, notes in the first through fifth positions and much more. Students will have the opportunity to play duets, trios, quartets and large ensemble pieces with other guitarists. All students will have the opportunity to improve their bass guitar playing skills. Composition of original songs and guitar pieces will be an important part of this course.

Course Title: INTRODUCTION TO MUSICAL IMPROV
Grade Level: 9th - 12th
Prerequisites: None

Intro to Musical Improv is targeted toward students who wish to play in a smaller ensemble focusing on repertoire by artists such as James Brown, The Beatles, Pink Floyd, Miles Davis, etc. After learning the songs, students will have the opportunity to improvise solos on their instruments. Students will learn a variety of rhythmic and melodic patterns that will help unleash their inner musical voice in a compassionate, creative environment. Students will feel like professionals, as they will have the opportunity to perform throughout the school year at all major concerts and various functions.

Course Title: ADVANCED MUSICAL IMPROV
Grade Level: 10th - 11th
Prerequisites: Introduction to Musical Improv

This course builds on the ideas of Intro to Musical Improv. A more in depth approach to scale and chord structure is taken as students explore harmonic extensions, rhythm and syncopation in greater detail. Songs in the blues, rock, jazz, funk and world music idiom will be explored as a platform to apply the concepts taught in this class. Students will also establish a foundation in basic piano theory that will act as supplement to their primary instrument skills. Students will have the opportunity to perform as the group will be expected to perform at all major concerts and functions throughout the school year.

Course Title: HONORS MUSICAL IMPROV
Grade Level: 11th - 12th
Prerequisites: Advanced Musical Improv

In this course, students will have a decent grasp on all of the modes derived from the major scale: Dorian, Phrygian, Lydian, Mixolydian, Aeolian and Locrian. Through various repertoires consisting of Jazz, blues, rock, funk, and world music students will apply and build upon the concepts learned in the previous Improv classes. Students will explore the use of polyrhythms and should be able to accurately count and clap rhythms presented to them for sight-reading. Elements of Jazz harmony and Be-Bop are used to demonstrate the crossover to other idioms. Students will have the opportunity to perform at all major concerts and functions throughout the school year.

Course Title: RECORDING STUDIO
Grade Level: 9th - 12th
Prerequisites: Departmental approval

This course provides students from Brunswick and GA the opportunity to study and work in a recording studio environment. Students need no prior experience in the studio or other music courses in order to participate in Recording Studio I. During the year the student will learn the basic techniques necessary to record instrumental and vocal sounds and to engineer and mix down a project to be burned on a CD. The opportunity to present work to the school community will be made available at several venues.

Course Title: ADVANCED RECORDING STUDIO
Grade Level: 10th - 12th
Prerequisites: Recording Studio

This course is a continuation of the skills and techniques learned in Recording Studio I. This course will offer a number of project opportunities for students, such as recording CDs, creating background music and sounds for movie and theatrical productions, recording and engineering CDs for fellow classmates and becoming more advanced in the technical knowledge in this cutting edge technological field. Previous recording experience (or Recording Studio) is a prerequisite for this course.

VOCAL/CHORAL MUSIC

Course Title: A CAPPELLA - MAHERTIANS
Grade Level: 9th - 12th
Prerequisites: Audition

The Mahertians is open to both Brunswick and Greenwich Academy singers. Serving as an ensemble dedicated to vocal performance, this a cappella chorus focuses on current pop arrangements as well as various choral selections in different genres. This ensemble is geared to singers who have a strong interest in singing. Rehearsal time is spent on learning techniques of blending, increasing performance expertise, and developing the awareness of individual vocal command. Participants of the Mahertians are chosen by audition, and **rehearsals are held in the morning before school.**

Course Title: BEL CANTO
Grade Level: 9th - 12th
Prerequisites: None

The objective of this course is to provide training in vocal and choral technique at an intermediate level. Singers will perform as soloists and as an ensemble in concerts throughout the year, studying treble literature of all styles, including classical and popular. *Bel Canto* (from the Italian, *beautiful singing*) is a style which emphasizes beauty of tone throughout the full range of the voice, and which strengthens breath control for phrasing. In this class, students will also focus on improving sight-singing skills through solfege study and basic music theory.

Bel Canto is a prerequisite course for Madrigal Singers.

Course Title: MADRIGAL SINGERS: HONORS CHORAL ENSEMBLE
Grade Level: 10th -12th
Prerequisites: Bel Canto; audition required

This course is designed to offer the most advanced level of choral music training at the Academy. The Madrigal Singers study treble literature of all periods, from the Renaissance through contemporary music. Their schedule includes several performances a year for school and community events and an international tour every two years. Solfege is the foundation of sight-reading using the Oxford *Folk Song Sight Singing Series*. Musical excellence is achieved by emphasis on ear training, vocal/choral techniques, and study of the highest quality literature written for women's voices. Students are assessed through regular singing tests in solfege and in the performance repertoire. Auditions are held in the spring for the following school year. Students with other choral experience or voice training may audition with permission of instructor.

MUSIC THEORY

Course Title: A.P. MUSIC THEORY
Grade Level: 11th – 12th
Prerequisites: Departmental approval

The AP course in Music Theory consists of a full academic year of work in preparation for the Advanced Placement examination. Ear training is studied by rhythmic and melodic dictation and through identification of intervals, triads and inversions. Harmonic analysis utilizes figured bass symbols and emphasizes the principals of voice leading in tonal harmony. Exercises in part writing and composition are an integral part of the course.

THEATER

The Theater Arts Department offers classes in both performance and technical studies. The program is structured for students who are serious about their craft as well as those who want to take a class for the joy of it. With creativity and collaboration students learn the process of bringing a production from conception through performance. By heightening individual skills, students become a part of the collective whole. Theater students are encouraged to supplement their class work by participating in any of the numerous productions mounted each year.

Course Title: ACTING I
Grade Level: 9th – 10th
Prerequisites: None

The rudiments of acting are at the heart of this course. Acting I is open to students with any level of acting experience. Exercises in movement, improvisation and voice are explored. Actors also memorize and perform monologues and scenes. The emphasis is on a variety of acting experiences and projects as assessments.

Course Title: ACTING FOR FILM
Grade Level: 9th – 12th
Prerequisites: None

This course is designed for all students interested in acting for film/video. We will study approaches to acting for the camera; explore the process of creating a film; watch various films to observe techniques and styles of acting; and examine historically how performance aesthetics have evolved in the 20th and 21st centuries. This class will be offered during the same block as (and will work in conjunction with) the Video Production class. The student filmmakers/directors in the Video Production class will collaborate with actors from our class on several projects.

Course Title: ADVANCED ACTING
Grade Level: 10th – 12th
Prerequisites: Acting I or departmental approval

Students will explore acting techniques through vocal and movement exercises and scene study. The social, political, and psychological reasoning for different approaches to acting will be examined. The course will study how theater has questioned and challenged cultural norms of each generation. The acting techniques of Stanislavski, Meisner, Strasberg, Brecht and Suzuki will be utilized.

Course Title: HONORS ACTING
Grade Level: 11th - 12th
Prerequisites: Acting I, Advanced Acting or departmental approval

This course, for both the actor and director, investigates tools to create a character on stage. Students will take turns between acting and directing scenes after a thorough analysis of the material. Through advanced scene study students will focus on process as well as product. Course projects will include showing one's work as both actor and director to an audience.

Course Title: INTRODUCTION TO DIRECTING
Grade Level: 10th – 12th
Prerequisites: One full year in Acting or Video Production

Introduction to Directing focuses on the process of directing theatre and the roles/responsibilities of a director. We will explore directorial concepts, staging techniques and how to work with actors and designers. We will also examine different styles and genres of theatre literature and observe how and why “classics” have been interpreted and reinterpreted by directors, again and again. Students will have the opportunity to direct monologues, scenes and short plays, culminating with a showcase performance in the spring.

Course Title: THEATRICAL DESIGN AND STAGE CRAFT
Grade Level: 9th – 12th
Prerequisites: None

Students are introduced to the elements of basic stage craft in this open-level course. Utilizing the state-of-the-art resources in the Baker and Black Box Theaters, students focus on the professional conventions used today in set construction, scene painting, costumes, lighting, and sound. Students have the opportunity to learn experientially using cutting-edge stage, lighting, and sound equipment as crew members for the various productions that happen throughout the year.

Course Title: ADVANCED THEATRICAL DESIGN AND STAGE CRAFT
Grade Level: 10th – 12th
Prerequisites: Theatrical Design and Stage Craft or departmental approval

Students continue their education in stage technology and design in this second year course. Advanced study in set construction, lighting, and sound combine with an introduction to the Color Kinetics LED lighting system in the Baker Theater. Students also continue study in set, lighting, and sound design principles through a partnership with the Advanced Acting class wherein they will plan, design, and execute small theater projects. Technical design using the computer drafting program AutoCAD, basic set design sketching, lighting plot design, and sound design principles are also introduced.

DANCE

The goal of the dance program is to enable students to express their ideas and feelings through movement. Dance classes (which are offered as an alternative to PE) and the performing companies at GA emphasize the development of choreographic skills paired with the study of a variety of technical styles, which serve the creative effort of the choreographer and the dancer.

Course Title: DANCE CORPS (one full arts credit)
Grade Level: 9th – 12th
Prerequisites: Audition

The Greenwich Academy Dance Corps is our resident dance company comprised of students from grades 9-12 who have been selected for their technical ability, interest in creative expression and commitment to dance. Once selected from an audition process each September, Dance Corps members are invited to participate for the duration of their time at the Academy. New Dance Corps members must take dance class as an alternative to P.E. at least two trimesters during the school year. A commitment to Dance Corps includes rehearsal on Monday evenings and most Sunday afternoons to prepare for *Winterfest* and the Spring Concert. These concerts are comprised of pieces choreographed primarily by Dance Corps members, incorporating a range of styles. Dance Corps members also have the privilege of working with professional faculty and guest choreographers as part of our Upper School dance residency—an experience which broadens their understanding of movement and of the dance field.

Course Title: JUNIOR DANCE CORPS (1/2 arts credit)
Grade Level: 9th – 12th
Prerequisites: Audition

Junior Dance Corps is the preparatory company for the Greenwich Academy Dance Corps. Once selected from an audition process each September, JDC members are invited to participate for the duration of their time at the Academy, or they may wish to audition again for admittance to Dance Corps. JDC is comprised of students in grades 9-12 who have exhibited a love of dance and a desire to build upon their creative and technical abilities. JDC meets every Thursday after school in the PAC. Members are required to participate in dance at least one trimester per year and perform in both *Winterfest* and the Spring Concert. Senior JDC members may have the opportunity to showcase their choreography in one of two concerts.

STUDENT LIFE PROGRAMS

HEALTH AND HUMAN DEVELOPMENT

This one-semester course is required for students at both Greenwich Academy and Brunswick School. It seeks to present essential information and provide a discussion forum for some of the critical issues ninth and tenth graders face. The curriculum treats such topics as nutrition, stress, substance abuse, sexuality, and relationships. Students meet in small, informal discussion sessions, in which it is hoped they will clarify, practice, and make informed decisions regarding these seminal issues. Students may expect occasional projects or other outside assignments. The course is graded on a pass/fail basis, and meets twice during the seven-day cycle.

ETHICS

Based on the PBS series *Ethics in America*, this one-semester course is required for Brunswick Juniors and offers students each week the occasion to discuss, debate, and refine their thinking about various ethical issues. A different scenario is introduced each session, with topics ranging from definitions of community to rights of privacy. Classes are small, so that meaningful discussion and self-examination of ethical positions can be promoted. The course is graded on a pass/fail basis, and meets for one semester, twice during the seven-day cycle.

PUBLIC SPEAKING

This course aims to help Brunswick seniors recognize the many ways in which we communicate. Participants will have a strong grasp of how to present a speech. Students will learn how to be comfortable and confident while presenting their ideas to their given audience. Students will explore historical speeches while working on developing their own senior voice presentations.

ONE-SEMESTER COURSES

Computer Science:

Fall

Spring

Introduction to Computer Science

Fine and Performing Arts:

Fall

Spring

Architecture & Design

Architecture

History:

Fall

Spring

American Cultural Studies
Constitutional Law & Logic
Microeconomics
Military History I: Factors in War
Modern Middle East
Persuasion, Propaganda & the Media

Architecture
Genocide & Human Behavior
Macroeconomics
Military History II: Warfare Throughout History
Psychology: Personality
Social Justice
What If

Mathematics (GA):

Fall

Spring

Introduction to Calculus

Introduction to Statistics

Religion & Philosophy:

Fall

Spring

Bioethics
Introduction to Philosophy I
Great Religious Leaders

Introduction to Philosophy II
Faith & Reason
Role of Religion

Science:

Fall

Spring

Advanced Science: Human Physiology I
Advanced Science: Organic Chemistry
Astronomy
Bioethics
Molecular Genetics/Microbiology
Oceanography

Advanced Science: Biochemistry
Advanced Science: DNA Science
Advanced Science: Human Physiology II
Environmental Science
Forensic Science & Investigation
Geology
Microbes, Plagues & Human Disease