



The Beekman School Course Descriptions

<p style="text-align: center;"><u>English</u></p> <p>English I English II English III English IV AP English Lit. & Composition English Skills ESOL</p>	<p style="text-align: center;"><u>History</u></p> <p>Geography & World Cultures Modern World History United States History AP US History US Government Advanced US Government Economics Advanced Economics History of New York Cold War Modern Politics International Politics</p>	<p style="text-align: center;"><u>Technology</u></p> <p>Digital Imaging Digital Illustration Introduction to Coding Web Design Game App Development Video Production Digital Audio Mixing 3D Graphics Production 2½D Motion Graphics</p>
<p style="text-align: center;"><u>Science</u></p> <p>Biology Chemistry Physics Ecology Forensic Science Astronomy Theoretical Physics Health Education</p>	<p style="text-align: center;"><u>Mathematics</u></p> <p>Algebra I Geometry Algebra II/Trigonometry Precalculus AP Calculus AB SAT/ACT Mathematics Finite Mathematics</p>	<p style="text-align: center;"><u>Foreign Language</u></p> <p>Spanish I Spanish II Spanish III Spanish IV</p> <p>All other languages offered in The Tutoring School!</p>
<p style="text-align: center;"><u>Fine Arts</u></p> <p>Art/Drawing Digital Photography Films & Filmmaking</p>	<p style="text-align: center;"><u>Additional Electives*</u></p> <p>Philosophy Psychology Creative Writing Ain't I a Woman SAT/ACT Verbal The Silver Screen Life Skills Behavioral Economics</p>	<p>*Electives vary from semester to semester and year to year. This list includes recent offerings.</p>

English Courses

The English program at The Beekman School concentrates on the development of four integral skills, which are essential for succeeding across the curriculum: reading, written communication, oral communication, and critical thinking. Students are required to actively participate in lessons through discussions, writing in and out of class, note taking during lectures, and group projects. At the start of each semester, teachers provide guidelines regarding homework, quizzes and tests, paper formatting, deadlines and other information for each class.

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English I

The English program at The Beekman School concentrates on the development of four integral skills, which are key to succeeding across the curriculum: reading, written communication, oral communication, and critical thinking. In this class students will be introduced to literary movements and how they are characterized (typically we begin with the Gothic, reading poems, short stories, and a novel. This year we will read *We Have Always Lived in the Castle* by Shirley Jackson. We also cover Greek mythology and drama, which introduces students to key concepts in western culture and literature.

Most compositions will be based on literature and will require students to write argumentative essays. There will, however, be creative and personal writing assignments given throughout the year in order to develop each young writer's "voice." During the second semester, students will write an independent research paper, using a minimum of three outside sources.

Vocabulary words are gathered from the literature and the SAT word list. Grammar lessons and quizzes cover topics such as apostrophes, pronouns, subject/verb agreement, and commas. Students are also expected to develop proofreading skills to improve the grammar of their written work.

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English II

The English program at The Beekman School concentrates on the development of four integral skills, which are key to succeeding across the curriculum: reading, written communication, oral communication, and critical thinking. In this class, students will read a variety of literary genres with a focus on the theme of Imperialism. We read a variety of short texts, poems, nonfiction, and a novel, typically *Things Fall Apart*, by Chinua Achebe.

Most compositions will be based on literature and will require students to write argumentative essays. There will, however, be creative and personal writing assignments given throughout the year in order to develop each young writer's "voice." During the second semester, students will write an independent research paper, using a minimum of four outside sources.

Vocabulary words are gathered from the literature and the SAT word list. Grammar lessons and quizzes cover topics such as apostrophes, pronouns, subject/verb agreement, and commas. Students are also expected to develop proofreading skills to improve the grammar of their written work.

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English III

The goal of this class is to read fiction, poetry, and essays that will be challenging but not overwhelming to the average high school junior. These works will come from a range of countries and will be very

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different in style and content. In addition to a literary approach, some works will be examined in a historical and social context to shed light on the author's ideas. Students will also write several papers, each completed only after it has gone through multiple drafts. Students will be expected to participate in discussions regardless of their level of spoken English.

During the first quarter we will speed swiftly through the basics of grammar. Our lit readings will consist of short stories and essays. Students will be taught how to dissect prose to understand its deeper meanings. To that end, the class will (re)learn good note-taking skills. Students will write 2 or 3 short papers.

During the second quarter, we will graduate to reading novels and poetry. Authors can include William Faulkner, Alan Sillitoe, Emily Dickinson, Rebecca West, Charlotte Gilman, and Charles Bukowski. Any leftover grammar lessons will be finished up. Students will write two papers taken through three drafts each.

In the third quarter, students write a research paper of 10 pages. This is the type of paper they will write in college. The entire process—from brainstorming ideas to using academic resources to structuring a convincing argument—takes the entire quarter. We will still be reading literature, but the workload will be lighter so that students have time to work on their papers during the evening.

Finally, the fourth quarter is a celebration of Shakespeare. This unit is mostly co-taught by both English teachers. We use acting, text dissection, and other unique exercises to open up the play. The goal is to get students to enjoy and understand The Bard. The work tentatively scheduled is *Henry IV (part 2)*.

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English IV

The goal of this class is to read fiction, poetry, and essays that will be challenging but not overwhelming to the average high school senior. These works will come from a range of countries and will be very different in style and content. In addition to a literary approach, some works will be examined in a historical and social context to shed light on the author's ideas. Students will also write several papers, each completed only after it has gone through multiple drafts. Students will be expected to participate in discussions regardless of their level of spoken English.

During the first quarter we will speed swiftly through the basics of grammar. Our lit readings will consist of short stories and essays. Students will be taught how to dissect prose to understand its deeper meanings. To that end, the class will (re)learn good note-taking skills. Students will write 2 or 3 short papers.

During the second quarter, we will graduate to reading novels and poetry. Authors can include Ernst Hemingway, Graham Greene, Kamala Markandaya, Sloane Wilson, Alan Paton, and Emily Dickinson. Any leftover grammar lessons will be finished up. Students will write two papers taken through three drafts each.

In the third quarter, students write a research paper of 12 pages. This is the type of paper they will write in college. The entire process—from brainstorming ideas to using academic resources to structuring a convincing argument—takes the entire quarter. We will still be reading literature, but the workload will be lighter so that students have time to work on their papers during the evening.

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AP English Literature & Composition

This class is by invitation of the teacher or the headmaster. Students who take this class must be willing to work hard, keep to deadlines, and be open to difficult texts that even college students would find challenging. Students who do not meet the requirements will be swiftly transferred to English IV.

The purpose of this course is to teach students how they can use literature to think about ethics, justice, morality, and mortality. We will look at literary characters and societies as they make moral and ethical choices. The job of the student will be to understand the philosophical and religious basis of morality and use that as a tool to evaluate the literature they read, their own actions and ideas, and the make-up of Western society in which they live. In this course, we will examine the worldviews of various authors to begin to comprehend the choices and dialogue of their characters. We will also study how the characters' actions affect family and society at large,

Generally, discussions will focus on not only of thematic and philosophical topics, but also around technique—that is, the author's use of voice, tone, and other literary devices. Some of the works we'll probably be reading include *As I Lay Dying* by William Faulkner, *The Waiting Years* by Fumiko Enchi, *The Wine of Astonishment* by Earl Lovelace, and *The End of the Affair* by Graham Greene. Plays may include *Antigone* by Sophocles and *Macbeth* by Shakespeare. Among the shorter works: "Notes from the Underground" by Fyodor Dostoyevsky; *The Art of Fiction* by Henry James; *On Photography* by Susan Sontag; "On Seeing England for the First Time" by Jamaica Kincaid; *Is There a Text in this Class?* by Stanley Fish; and *Ars Poetica* by Aristotle.

Students may expect to write 3-4 short papers (2–3 pp.) and 5 long papers (6 pp.) during the year. Each paper will have two or three drafts. There also will be regular and unannounced in-class writing assignments. Problems with mechanics, grammar, and style will be addressed through mini-lessons in areas where students are struggling.

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English Skills

This course is designed to reinforce cross-disciplinary standards and to provide the tools necessary for student success through a well-developed curriculum. The focus will be on key cognitive skills, foundational skills, organizational skills, and time-management. Students will learn several strategies to improve reading, writing, mathematics, test-taking, note-making, research, computer, and study skills.

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English for Speakers of Other Languages (ESOL)

This course is designed to strengthen English language skills through the use of a content-based curriculum. Academic English is emphasized and will be reinforced using a variety of texts, writing assignments, speaking activities, and cooperative learning projects.

Since students might be entering at different levels, grammar and vocabulary will be presented in relation to other Beekman courses. Students will write simple sentence patterns or will expand their

writing skills to include more complex varieties of sentences and will be expected to participate in conversation and communicate orally using conventions of standard English.

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History Courses

History is a crucial subject necessary for all students' understanding of the basic knowledge, skills, and positive attitudes needed to become responsible citizens and contributing members of society. History draws upon geography, economics, the social sciences, behavioral sciences and humanities, while attempting to teach a wide range of critical and creative thinking skills.

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Geography & World Cultures

This is a yearlong course designed to introduce students to the physical and cultural geography of our world. The course will explore the following essential question in order to understand the differences that pervade the modern world: How does geography affect the development of civilizations? In addition, students will examine the unique elements of culture that create a civilization's history. Students will be encouraged to engage in discussions of religion, diversity, environmental concerns, and to think critically about conflicts, political and economic systems, and the impact of geography on the development of cultural beliefs, differences, and diffusion. The students will be dealing with maps on a daily basis, and will leave class with a sense of where they are in the world and why it looks the way it does.

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Modern World History

This is a yearlong course, designed to begin with the Renaissance in Western Europe and proceed through the Cold War. Given the current revolutionary atmosphere pervading the world, this class will view its topics through the lens of revolution. Students will begin the year by creating their own definition of what a revolution is, and end the year reflecting on whether or not they need to change their initial belief. The design emphasizes the relationship between global events as well as the interconnectedness of belief, political, social and economic systems, as well as other elements of culture including technology, conflict, environment, and modes of expression. The course will approach topics from a global perspective and will devote some time to both current events and geography.

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United States History

This is a yearlong course designed primarily to present students with historical information that will allow them to form their own judgments, opinions, and perspectives of the history of the United States. This course will look through the lens of how the United States has become a deeply politicized nation. The course material asks students to examine the present by looking at the political, social, and economic forces that have shaped the past. The course will begin with the exploration of the continent and go on through the nation's involvement in World War II, with a constant awareness of connections to current events.

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AP United States History

The AP U.S. History course focuses on developing students' understanding of American history from

approximately 1491 to the present. The course has students investigate the content of U.S. history for significant events, individuals, developments, and processes in nine historical periods, and develop and use the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) employed by historians when they study the past. The course also provides seven themes (American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society) that students explore throughout the course in order to make connections among historical developments in different times and places.

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United States Government

This is a one-semester course for seniors. The course will discuss basic political theory, review the United States Constitution, and examine current political systems in our country and throughout the world. In addition to studying the three branches of government, specific topics of study may include U.S. citizenship policy, civil liberties, public interest and opinion, and mass media. The course also focuses heavily on political ethics and policy.

Students learn to recognize and think critically about national and international problems, and to articulate their opinions of these issues. Upon completion of this course, it is hoped that the student will be able to successfully campaign for his or her beliefs, cast an informed vote in elections, and participate in the United States government as an educated citizen. Students in this course are expected to have had experience in essay writing, analysis, and a strong familiarity with U.S. history.

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Advanced United States Government

This is a one-semester course for seniors. The course begins with basic political theory and study of the founding of the nation and the corresponding documents, but incorporates the themes of freedom, order, and equality into the curriculum. The course continues with an in-depth study of federalism, in America. In addition to studying the make-up of the government, students will learn about electoral politics, lobbying, interest groups and the mass media. They will finish with an incredible understanding of lawmaking and Congress, as well as the Presidency and the Supreme Court. This course will assist the student in preparing for the American Government AP exam, though he/she will have to complete additional outside study to cover all topics on the test.

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Economics

This is a required one-semester course. In it we will study basic types of economic systems, how they intersect with government, and how they affect the people who live under them. Specifically, we will focus on the U.S. economy by looking at the two main branches: macroeconomics and microeconomics. This course should also provide a framework to understand news reports and politicians when they speak about inflation, the GNP, trusts, globalization, investments, balance of trade, taxes, etc.

Even if you don't agree with Marx's viewpoint that money dictates every aspect of our lives, it is true that money is inextricably tied to them. Whether in terms of a business involvement, your own wallet, or the government, understanding how these decisions are made and how they affect you is an indispensable undertaking.

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Advanced Economics

This is a required one-semester course. In it we will study basic types of economic systems, how they intersect with government, and how they affect the people who live under them. Specifically, we will focus on the U.S. economy by looking at the two main branches: macroeconomics and microeconomics.

In order to understand how the U.S. came to adopt its economic system, we will begin the course by looking at some of the most discussed pieces written on economics by thinkers such as Mill, Marx, Malthus and Smith. This should provide a background that will give context to thinking about our way of living compared to other countries today, as well how people lived in the past.

This course should also provide a framework to understand news reports and politicians when they speak about inflation, the GNP, trusts, globalization, investments, balance of trade, taxes, etc.

Even if you don't agree with Marx's viewpoint that money dictates every aspect of our lives, it is true that money is inextricably tied to them. Whether in terms of a business involvement, your own wallet, or the government, understanding how these decisions are made and how they affect you is an indispensable undertaking.

Students in the advanced section of this class are expected to complete challenging assignments and be able to write cogently. Students will also create independent research projects that they will present to the class.

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History of New York

This course takes a novel approach to history. It is taught not chronologically, but thematically. Every semester, we delve deep into the following topics:

1. When did the subway system begin (believe it or not, it was 1870), how did it go bankrupt and how did the city wage war on graffiti?
2. How did Manhattan's street grid develop and where are the streams that continue to run under our streets?
3. Why were the 1970s one of the city's worst eras and, at the same time, a decade that gave birth to Disco, Punk, and Hip Hop
4. How did New York City get its water 200 years ago? How does the city make sure there's enough water now?

What goes into building a Manhattan skyscraper and how did the city discover that the 59-story Citicorp Center could fall during a mild hurricane?

The course is taught through lecture, a wealth of rare video, and homework readings. While the workload in this elective is not as rigorous as a standard Beekman history course, students are tested after each unit, and they are required to write short papers and make class presentations.

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The Cold War

This is a semester long course designed to present students with an in-depth look at the origins, notable events and results of the Cold War between the Soviet Union and the United States that affected the entire world, in one way or another, between 1945 and 1991. The course will help students to better understand the world today by looking at the events of the recent past that helped shape it. We will also have a weekly discussion of current events that affect the globe.

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Modern Politics

This course is designed to continue where your World and US History classes left off—in the modern era. We will focus specifically on American domestic policies and international relations from the New Deal to the present, from a political/historical perspective. The following is a list to give you a sense of the topics/issues we may address:

- What did the end of WWII signify for the US and the other involved nations?
- How has the development of international organizations, such as the United Nations, affected global politics over the last half-century?
- Analysis of the Cold War and anti-Communist climate of the 1950's.
- Analysis of the ongoing Israeli-Palestinian struggle.
- Analysis of the evolution of the Presidency from Eisenhower to G.W. Bush
- How has pop culture been affected by various eras in United States history? What effects has pop culture had on our youth?
- How did the Vietnam War, the Civil Rights Movement, and the Woman's Movement shape US politics from the 1950's to the 1970's?

Analysis of current topics throughout the 1990's into the 21st century, including the AIDS epidemic, the Clinton scandal, the ongoing war on terrorism, and the fate of Iraq.

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International Politics

International Politics is a semester-long course designed to research, analyze, and discuss contemporary/current global issues from a variety of perspectives. We will cover modern world history from the 1930s to the present. Topics range from life under Stalin, to the origins of Islamic Fundamentalism, from the genocide in Rwanda to China's economic surge (or bubble). Students will be encouraged to bring up issues that they would like to discuss in order for the class to remain both fresh and relevant. The following is a sample guide to this course:

- How have people fared under various government systems (Communism, Fascism, Democracy, Fundamentalism)?
- Human rights and genocide-why nations around the world have dropped the ball.
- Economics and its impact on foreign policy.
- Spreading democracy-to whose advantage?
- Revolution and reconstruction-which factors prevent success?

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Technology Courses

Students develop knowledge and skills related to computers and technology so that they will be prepared to enter today's high-tech work environment. Topics covered include attaining a working knowledge of computers for personal or business use, computer graphics, computer animation, video production, audio mixing, digital print, and web design layouts.

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Digital Imaging

This is a one-semester computer course that introduces students to digital image design using industry-standard software. Students will learn each tool in detail through tutorials, projects, and quizzes. Throughout this course, students will engage in several large projects that develop a general

understanding of creating, manipulating, and improving digital images. At the completion of this course, students will create media portfolio as their final project.

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Digital Illustration

This one-semester course involves inquiry into the nature of graphic design and visual problem solving as well as graphic design history. This class will discuss what constitutes successful design to convey ideas and sentiments. The class also explores major techniques such as the golden ratio and the manipulation of positive and negative space. Students will work both independently on projects ranging from logos, postcards, and posters. Students will industry-standard software for their projects.

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Introduction to Coding

This one-semester introductory computer course introduces students to Coding in the Swift language. The course will cover the basic concepts and components of writing code and from there writing and running full apps. The main applications will be Apple's Swift Playgrounds and Johannes Berger's app, Swifty.

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Game App Development

This one-semester introductory computer course introduces students to the world of App Development through the various stages of production, from layout planning and design to building. The class will use the GameSalad software and online service. The course will focus on delivering a final app.

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Web Design

This is a one-semester computer course that introduces students to web design using industry-standard. Throughout this course, students will gain a general understanding of the vocabulary of the World Wide Web from ISP to PHP. Students will basic HTML skills. We will also focus on how to use layout, color and design to effectively send a message. Part of the class will teach on basic image editing to create and optimize images for the web. Additionally, students will learn to organize, manage, and publish their sites.

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Digital Audio Mixing

This one-semester introductory computer course introduces students to digital audio manipulation with the software program Apple GarageBand. The course will focus on tips, tricks, and techniques for producing professionally mixed audio on a digital audio workstation. We will begin by discovering how to set up an optimal listening environment and defining digital audio basics. Next you will learn how to master the intricacies of equalization; incorporate various audio effects; and generate the final mix. At the completion of this course, students will understand how to process audio, balance a mix, and build a powerful track.

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3D Graphics Production

This one-semester introductory computer course introduces students to 3D graphics at the production-level using the industry-leading software program, Maya. This course will familiarize students to the main components of 3D production known as the pipeline: modeling, texturing, animation (including

dynamic simulations), lighting, and rendering. At the completion of this course, students will either create a short-form video or a complex model utilizing the skills learned.

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2½D Motion Graphics

This one-semester introductory computer course introduces students to motion Graphics (computer animation) using the software program Apple Motion. This course will familiarize students to the main components of Motion: the work window, animation timeline, tools and panels, and symbols. Once you are comfortable working with the GUI, you'll dive into all the methods of animating, ranging from traditional tweening to working with Motion's set of Generators, Replicators, and Particle Emitters. At the completion of this course, students will create a short-form video utilizing the skills learned.

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Science Courses

The science program is designed to surpass the National Science Education Standard requirement of achieving scientific literacy. While the ultimate goal is to challenge students and provide an appropriate foundation for further studies and careers in science, the content is structured to foster positive attitudes toward science and increase student understanding of scientific knowledge, processes and technology.

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Biology

Biology is an exciting and rapidly growing field of study. This one year course is an introduction to the biological sciences. Students will develop a greater understanding of the fundamental principles of living organisms including cell structure and function, animal behavior, genetics and heredity, evolution and classification, diversity of living organisms, and plant and animal structure and function. Laboratory periods are used to reinforce the topic currently being considered and to develop necessary process skills and reasoning ability required in scientific inquiry and investigations.

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Chemistry

Pre-requisite: successful completion or concurrent enrollment in Algebra II/Trigonometry.

The objective of this course is to develop a working knowledge of many fundamental aspects of modern chemistry, including: chemical symbols, nomenclature and formulas, manipulation of equations, stoichiometry, aqueous solution chemistry, acids and bases, the periodic table, theories of chemical bonding, thermochemistry, atomic theory, gas laws and the states of matter. Laboratory periods are used to reinforce the topic currently being considered and allow students to acquire reasoning skills for scientific investigations.

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Physics

This course is a one-year introduction to the major topics of physics. You will learn about the dynamic relationships between matter and energy. Modern applications of the preceding principles will be emphasized. In order to fully understand and apply physical principles, you should have a thorough grasp of algebra-based problem solving skills.

The emphasis of this course is to understand the fundamental principles governing physics; number-

crunching and absolute answers are not the primary objectives in this course.

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Ecology

This one-semester elective is designed to introduce students to the environmental science aspect of ecology. A basic understanding of general biological processes such as photosynthesis and nutrient cycling is helpful, but not required. Topics covered throughout the semester include: analysis of biotic and abiotic factors in ecosystems; nutrient and energy cycling; food chains and food webs; the atmosphere; the greenhouse effect and global warming; water and air pollution; land use; food; waste; biodiversity and sustainability. Through participation in labs performed in class, students will acquire reasoning skills necessary in understanding and conducting scientific investigations, reinforce the topic currently being studied and develop skills in organizing information, making observations, recording scientific data and preparing lab reports.

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Forensic Science

This course provides students with an introduction to Forensic Science. Topics to be covered include forensic analysis of physical evidence, firearms, fingerprints, autopsy, documents, entomology, anthropology and DNA. Specifically, the course will introduce students to the history of forensic science, careers in the field and the biological, chemical and technological practices involved in crime scene processing. Students will be required to collect, examine, test, interpret and solve problems using the scientific method. Communicating scientific information orally and in written form will be stressed as will complex reasoning and critical thinking skills. An appropriate level of maturity is expected. Students will be exposed to disturbing pictures, videos, readings and discussions related to crime scene investigations. Students will never be forced to interact with material they find uncomfortable, however, alternative assignments will not be made available.

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Astronomy

This one-semester elective is an introduction to the field of astronomy. It provides a survey of our modern understanding of the cosmos, including the formation of our solar system and galaxy, and our overall place in the universe. A major course objective is to provide an appreciation for how our lives are connected at the most fundamental level to the Sun, Moon, planets, stars, and galaxies that fill our skies.

Course content includes: The Big Bang; star and planet formation; understanding energy, motion, and gravity; the early history of astronomy and the Copernican revolution; discovering the universe on an individual level; recent insight into the possibility of life elsewhere in the universe; the challenges of interstellar travel and manned exploration of the cosmos.

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Theoretical Physics

This course is a one-year math intensive science class of major topics in physics, with a stronger focus on Modern Physics. You will learn about the dynamic relationships between waves and energy, electricity and magnetism, as well as atomic and nuclear physics. Modern applications of the preceding principles will be emphasized. In order to fully understand and apply physical principles, you should have a thorough grasp of algebra- and trigonometry-based problem solving skills.

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Health Education

This required one-semester course in health is a serious, in-depth approach which focuses on teaching students the responsibility of caring for their emotional, physical, and social welfare as young adults, and perhaps, eventually, as parents. This class is designed to provide information, ask questions, solve problems, and support students in a sensitive, confidential environment. Although there are some objectively right or wrong answers in this subject, much of the most important learning involves questions that do not have clear-cut answers. Therefore, besides quizzes and tests for each chapter, there will also be short essays and reading responses throughout the semester.

Health is a required class in the state of New York. At the Beekman School, this course is taken very seriously. It is our belief that in order to understand how to stay healthy and fit, one must have a familiarity with basic biology and physiology. Once these concepts are understood, Health students can take an active role participating in their own health care.

A range of topics which may be covered throughout a semester are: making healthy choices, personality and self esteem, managing stress, mental disorders and suicide, psychological development, adulthood, aging, and death, food and nutrition, personal care, alcohol, tobacco, preventing drug abuse, infectious diseases, AIDS and sexually transmitted diseases, and noninfectious diseases and disabilities.

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Mathematics Courses

Knowledge of mathematics and a familiarity with its applications are essential in today's changing world. Selection of the correct course sequence is the single most important factor for success in mathematics at the high school level. The courses offered are designed to serve students with differing abilities, interests, and career aspirations and to enable students to experience success in mathematics.

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Algebra I

Algebra I introduces various topics that comprise elementary algebra. Students not only acquire important algebraic skills to simplify problems and solve equations, but they also gain an understanding of the concepts that lie at the heart of algebraic manipulations. In so doing, this course directly prepares the student for the questions concerning algebra on the mathematics sections of the SAT and ACT exams, as well as providing a solid foundation on which to build in subsequent mathematics courses such as Geometry, Algebra II and Trigonometry.

Major topics include the algebraic modeling of real life problems, solving and graphing equations and inequalities; systems of equations; ratios and proportions; properties and use of exponents; mathematical modeling using functions, tables and graphs; number patterns, counting methods and permutations; polynomials and factoring; radical expressions and equations.

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Geometry

This course reinforces and extends the mathematical foundation established in an Algebra I course. It offers an in-depth investigation of the topics of a yearlong course in Geometry while revisiting numerous algebraic topics from a geometric perspective.

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Semester One is devoted to a study of basic principles, reasoning and proof, parallel and perpendicular lines, congruent triangle theory, and special relationships within triangles. Important theorems from semester one include the isosceles triangle theorem, and the proof that all triangles have angles whose sum is 180 degrees.

Semester Two is devoted to a study of quadrilaterals, area, perimeter, and circumference, similarity theory and right triangle trigonometry. Major objectives of this course are a thorough understanding of mathematical topics as tested in both the SAT and the ACT. By the end of this course a student will have, among other things, complete familiarity with the x-y plane, facility with the Pythagorean Theorem, and the ability to find measurements indirectly using trigonometry and a calculator.

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Algebra II/Trigonometry

Prerequisite: Algebra I and Geometry.

This course reviews and extends the mathematical investigations of the previous two courses into the study of function theory, trigonometry, systems of equations and inequalities, and exponential and logarithmic functions. It constitutes the third year course in the Mathematics Department Syllabus progression.

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Precalculus

Prerequisite: Algebra II/Trigonometry (or permission of the instructor).

This course is a rigorous one-year introduction to the major topics of Precalculus. Students will learn about topics that are beyond the scope of both Algebra II and Trigonometry, but which are necessary to understand Calculus. This course is recommended for any student who is interested and proficient in mathematics and wishes to expand and extend his/her knowledge in this area by pursuing the subject beyond the framework of the basic algebra and geometry course offerings.

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AP Calculus AB

Prerequisite: Precalculus (or permission of the instructor).

This course is designed for students who have a strong background in Precalculus, including equation theory and trigonometry, and wish to continue their study of higher-level mathematics as well as take the AP Calculus AB exam in May. As such, this course is aimed at students who are hard workers and are looking for a challenge. Topics covered in past years include: functions, limits, differentiation, logarithmic & exponential functions, applications of differentiation, integration, applications of integration, and further techniques of integration. There is a heavy emphasis on problem-solving, particularly in the form of word problems.

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SAT/ACT Mathematics

This course will consolidate the student's understanding of the math topics covered on the SAT and ACT. In addition to covering all relevant mathematical subjects, the course will also develop test-taking strategies particularly useful for scoring well on the SAT and ACT. Information strips available on all Math SATs and ACTs will be gone over in advance so no time will be lost in making use of them on the actual tests. Similarly, the process of entering the "student response" answers on the SAT or ACT so that the answer can be correctly scored will be reviewed so no time will be wasted during the actual SAT or ACT. Math sections from previous years will be given, scored, and analyzed so that mistakes

will be corrected and not carried forward. Material vital to scoring well on these exams will be drilled and tested. Perhaps most importantly, exercises and problems utilizing techniques and reasoning identical to the thought processes needed to quickly solve SAT or ACT math questions will be studied and practiced with intensity.

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Finite Mathematics

This elective in Mathematics reinforces and extends the mathematical foundation comes from a year's study of both Algebra and Geometry. One aim of Finite Mathematics is to strengthen a student's basic mathematical skills in accordance with the standards of the NYS Mathematics Regents. A second basic aim is to enrich the student's mathematical foundation with explorations of topics such as prime number theory, set theory, abstract group theory, and number theory which are not generally taught within the confines of syllabus math courses. Finite Mathematics is both practical in its emphasis on review, and interesting in its varied selection of intriguing mathematical topics.

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Foreign Language Courses

Spanish I

At the end of this course, students will be able to hold a basic conversation and make simple requests similar to the ones found in a traveler's language guide. They will be able to introduce themselves, give information about themselves, order a meal in a restaurant, shop, count money, ask for directions, and seek medical care. And last but not least, make friends.

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Spanish II

Prerequisite: Spanish I.

The objective of Spanish II is to obtain proficiency in listening, speaking, reading, and writing in the target language. In addition, students will acquire a firm linguistic base, which is the foundation of effective communication and meaningful language proficiency. In order to develop a more concise world-view, students will learn to situate the language within the context of the contemporary Spanish-speaking world and its cultures. The emphasis in this course sequence is to actively apply the fundamentals that were introduced in the preliminary Spanish course (Spanish I). Students will develop their communication skills by learning to express complex thoughts and ideas. Among the verb forms studied are the present, the imperfect, the subjunctive, the reflexive, the imperative, the future, the future perfect, and the conditional. To facilitate thinking in the target language in an abstract manner, a variety of literary texts are read and discussed. In addition, specific attention will be paid to correct pronunciation and diction.

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Spanish III

Prerequisite: Spanish II.

The objective of Spanish III is to refine listening, speaking, reading, and writing in the target language. In addition, students will strengthen and expand their linguistic base, thus enhancing the foundation of effective communication and meaningful language proficiency. Students will continue to learn to situate the language within the context of the contemporary Spanish-speaking world and its cultures. The emphasis in this course sequence is to actively apply the fundamentals that were introduced in

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the primary and secondary Spanish courses (Spanish I and Spanish II). Students will develop their communication skills by learning to express complex thoughts and ideas. Written assignments of a more substantial length will afford students the opportunity to write in a more academic manner. Among the verb forms reviewed are the present, the imperfect, the preterit, the reflexive, the imperative, the future, the future perfect, the conditional, the present perfect, and the subjunctive and imperfect subjunctive. Students will learn grammar within the context of various authors, such as Ana María Matute, Horacio Quiroga, and Luis C. Infante. The literary context in which students encounter the language will allow them to think critically about the ideas and situations presented by the authors. In addition, specific attention will be paid to correct pronunciation and diction, and the subtle nuances of spoken language.

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Spanish IV

Prerequisite: Spanish III.

The objective of Spanish IV is to further the communication skills acquired in Spanish III, with the aim of language proficiency. The course includes extensive oral expression. Authentic audio and video recordings as well as native Spanish speakers are accessed to improve comprehension and conversation. Reading selections from authentic materials and selected Hispanic literature are read for comprehension. Discussion, debate, projects, compositions, and other directed writings demonstrate understanding of the culture and the complexities of the language and vocabulary. The majority of the course is conducted in Spanish.

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Fine Arts Courses

Art/Drawing

This course emphasizes Art/Drawing Elements (Line, Shape, Color, Texture, Tone) and Principles (Focal Point, Balance, Leading Lines, Pattern, Perspective, Proportion and Scale). In the first part of the class, students explore drawing/printmaking exercises that help them develop technical skills with various art materials in relationship to the Elements and Principles. In the second part of the class, students choose a socially-engaged theme or topic, and then use their drawing/printmaking skills to create one or more substantially sized compositions that express their chosen theme. Students then present their final composition(s) at the Beekman Student Exhibition at the end of the semester, using critique methods that have been taught throughout the entire semester.

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Digital Photography

Students are introduced to basic techniques of digital photography through a series of group discussions and photography assignments. Assignments emphasize skills related to Rule-of-Thirds, composition, natural and artificial light, focal point, leading lines, depth of field, and other visual aesthetics techniques. Students visit various museums and galleries, NYC "iconic" locations, and a Reprographics business. Students will print out several of their digital photos and present a thematic series of prints at the Beekman Student Exhibition at the end of the semester, using critique methods that have been taught throughout the entire semester.

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Films & Filmmaking

This course presents the history of cinema from its birth to today. We study films and filmmakers who

are critical to the evolution of the medium in terms of technique and societal and cultural impact. We review all of cinema's media relatives; from radio, newsreels, music videos and commercials to YouTube and Snap Chat.

We also explore the technical aspects of how films are made so that we can apply these techniques to the process of making films via project based learning. The overall goal is to illuminate students to the essential works of cinema and media and apply this knowledge to the making of films.

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Additional Elective Courses

Philosophy

This is a one-semester course that will provide a general overview of the most prominent philosophers. Philosophers studied include: Socrates, Plato and Aristotle; the course then moves into the era of more modern philosophers. Some of the modern philosophers studied may include: Thomas Aquinas, Descartes, Kant, Hume, Rousseau, Wollstonecraft, Hegel, Hobbes, Locke, Nietzsche, and Kierkegaard. Finally, the course ends with the examination of the major Existentialists: Sartre and Camus.

Issues to be studied can include: Examining the idea of a universal right/wrong, systems of reality, reality of the self vs. reality of the society, ethics, morality, justice, religion, human freedom, philosophical questions of epistemology, skepticism, truth, aesthetics, the role of the senses, existentialism, deconstruction, and post-modernism.

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Psychology

This course is an introduction to the major topics of psychology. Students will explore Freudian psychoanalysis, theories of motivation, cognitive-social learning theory, and psychological disorders. Our study will focus upon the biological, social, and intellectual aspects of thought and behavior. The course is recommended for any student who is interested in learning about the underlying principals governing the mind, brain, and body. We will study the historical progression of psychology through articles, handouts, films, and a textbook in order to increase insight into the human mind, body, and behavior with an emphasis on modern day applications.

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Creative Writing

The Creative Writing class is aimed at developing students' reading and writing skills. We will examine the works of literary authors, poets, journalists, and essayists with a view to creating our own work. The course will include readings about the craft of writing, and exercises aimed at cultivating the writer's voice and style.

In this class students will read a variety of literary genres including excerpts from longer works, essays, short stories, poems, and articles.

Students will be free to explore a variety of topics in varying genres. Grammar and mechanics will be addressed throughout the course, and will be discussed in the context of writing style. We will use several techniques to help students develop their expertise in various aspects of creative writing.

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Ain't I a Woman

In this course, students examine the foundations of Feminist history in the United States. We begin with an exploration of women's lives in pre-19th century America, including the lives of female slaves and women on the frontier. The 19th century saw the earnest beginnings of what can be called a movement. We read the works of abolitionists and proto-Feminists like Sarah Grimke, who laid the foundations in public speaking and petitioning that made the mature Feminist movement possible, as well as founding documents of American Feminism such as the Declaration of Sentiments. Additionally, we explore themes such as reforms in female education that prepared women to engage society in a conversation about gender equality, in addition to proving that women could indeed succeed intellectually, just like a man. The aim of the course is to bring students through to the winning of universal suffrage in the ratification of the 19th Amendment.

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SAT/ACT Verbal

This course offers a comprehensive preparation for the SAT/ACT Verbal sections of these standardized tests. The SAT/ACT Verbal class will go over examination grading procedures and offer the best test taking strategies for each section. This class will also embark on a thorough review of vocabulary, grammar, and writing skills, in addition to the skills necessary for critical reading. Finally, the course will chart individual students' progress by the systematic taking and grading of actual and simulated SAT/ACT Verbal exams.

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The Silver Screen: A History of Film

This course surveys the history of films from around the world from 1895 to the present. We study films and genres that are deemed important in film's history and progression. Many of the films that we view in this class have influenced the films that we see today. Many of these films also deal primarily with the human condition and the state of the world during the periods in which they were made. The films viewed are for enlightenment, educative purposes, and serve as a window to the past. The 20th century is the only century to have a complete history of our various cultures immortalized in moving images.

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Life Skills

This course is a flexible survey of skills to make life easier. You can expect this class to cover personal budgeting and public speaking. Additional topics may include balancing a checkbook, sewing a button, or writing a resume, etc.

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Behavioral Economics

Economics is about how people make tradeoffs between scarce resources. Generally decision makers are assumed to be rational; that is they choose what is best for them based on their preferences, whatever those preferences may be. Behavioral economics focuses on deviations from economists' understanding of what it means to be rational. It incorporates findings, methods, and ideas from psychology into economic theories about decision making, taking into account the importance of emotions, environment, and the social nature of people. It also looks at the idea that decision making is in itself a process that uses resources in the brain, and these costs end up meaning at a certain point, the cognitive costs of behaving rationally outweigh the benefits. In this course, we will cover a variety of cases where behavioral economics provides valuable contributions to understanding human

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decision making. We will talk about addiction and procrastination and the conflict between the desire for instant gratification and long-term well-being. We will look at so-called projection bias (which will explain why you should think twice before going to the grocery store hungry), and prospect theory and the endowment effect (the idea that losing something you already possess is worse than not purchasing it in the first place). We will also talk about social preferences, which is the idea that because of the social nature of human beings, self-interest involves a variety of social concerns such as altruism, cooperation, envy, and revenge.

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