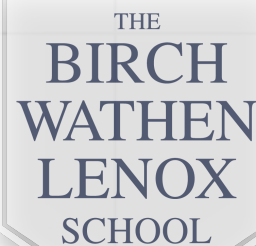


Upper School Course of Study



1916



The curriculum of the Birch Wathen Lenox Upper School is designed to produce positive learning outcomes in the following areas: knowledge and understanding, critical thinking and investigation, creativity and appreciation of aesthetics, personal and social growth, and development of values.

To meet the goals of the academic curriculum the following minimum graduation requirements have been established:

English	4 years including one Senior Elective
History	3 years including the study of World History (2 year sequence) and American History
Mathematics	3 years at high school level including Algebra 1, Geometry, and Algebra 2
Science	3 years of Laboratory Sciences: Biology, Chemistry, and Physics
Languages	3 years of one language through level 3
Fine Arts	2 years Art Grades 9 and 10, which includes Digital Photography, Visual Storytelling and Studio Art
Music & Performing Arts	1 year Music course in Grade 9. Students can choose from any of the Music course offerings to fulfill this requirement.
Physical Education	4 years including health education in Grade 10.
Elective Credits	Additional courses from academic and non-academic disciplines for a minimum of 6 courses each semester each year is strongly recommended. Seniors with 3 or more AP courses may elect to only take 5 courses, but they must all be from academic disciplines.

BWL Beyond

Our Signature Programming

Entrepreneurship Program and Laboratory

This program, new for the 2023 – 2024 school year, will allow students to develop a business plan and build a product or create a service that is uniquely their own. Over the course of four years, students will learn various business disciplines, including Finance and Accounting, Sales and Marketing, Management, and Operations and Economics to prepare them to become future entrepreneurs. The program culminates with groups presenting to a panel of entrepreneurs to demonstrate how their product or service meets a demand, either known or unknown, in the marketplace. In this way, the program will serve as an incubator where students will be able to leverage the resources of BWL and its community.

The Program is a novel and exciting 4-year program for Upper School students beginning in 9th Grade. The application process is based on a written essay and students' GPA.

- Years 1 and 2: this Program does not focus exclusively on building a product or service but rather spends considerable time in years 1 and 2 on business fundamentals. It prepares students to understand all aspects of beginning a commercial venture, including Sales and Marketing, Finance and Accounting, Management and Operations and Leadership.
- Years 3 and 4: students work in teams to develop a practical business plan that meets a known or unknown need in the marketplace, culminating with a final presentation of the business to a panel of entrepreneurs. Students will roll up their sleeves and begin the market research process and prepare for an in-depth study of business plan writing and product development.

The program will be spearheaded by our Head of School, Bill Kuhn, who has an MBA from Columbia Business School. He will teach the first cohort. Other advisors to the program include Maggie Sprenger, NYU Stern Adjunct Professor and Partner at Audere Capital LLC, Brian Lancaster, a Columbia Business School Professor of Finance and Economics, as well as the Founder and President of The Minot Group LLC, and Jayesh Punater, Founder and CEO of Nucleus DNA, and Founder and CEO of Gravitas.

The Program is housed in our new Entrepreneurship Lab located on the 9th floor. An initial Phase 1 of the Lab build-out was completed in September 2023. A more in-depth Phase 2 will begin in June 2024.

Democracy and Dissent Course (launching in Spring 2024)

This course will offer all Upper School students the opportunity to learn about law, rhetoric, and the foundations of democracy. During the Spring semester of 2024, BWL will collaborate with Professor Sasha Natapoff from Harvard Law School to explore how dissent and disagreement have led to social progress. The students will study and analyze some of the more well-known Supreme Court cases and have the opportunity to discuss them with various guest instructors, including prominent New York City lawyers.

This course expands on BWL's Constructive Dialogue Initiative, a school-wide initiative that focuses on creating conditions for students to engage one another in diplomatic dialogue, particularly if there is disagreement present. Indeed, the course is designed to explore why disagreement is healthy for our democracy and how we can better understand different perspectives. The course also offers students an educational experience that broadens their understanding of constructive debate, giving them an opportunity use the skills and strategies of Constructive Dialogue.

Independent Study Program

BWL's Independent Study Program provides opportunities for highly motivated 7th - 12th grade students to explore a particular subject or topic of interest, while developing the skills to produce high-level academic projects. The program is designed for students who are excelling in a specific subject area and want to expand their knowledge through independent study and mentorship, learning to produce high quality academic writing, while presenting their ideas and research in a symposium setting.

Eligible students are paired with a mentor teacher in their focused subject area, as well as an Independent Study advisor for weekly meetings. These faculty members provide direction, support, and the skills for students to explore their passions and produce a final project of which they can be proud.

Each Independent Study takes place over either the Fall or Spring term, with a culminating Independent Study Symposium where students present what they have learned and created.

BWL Abroad Program

Dubai, UAE – 11th and 12th graders will have the opportunity to visit Dubai, where ultra-modern meets the historical cradle of civilization. Students will be hosted by one of our BWL parents and spend a week seeing historical sites,

learning about Dubai's rich and ancient history, seeing its world-renowned architecture, and studying at a second school.

Students will undertake a curriculum blending the city's arts and culture with its cutting-edge science and technology through:

Immersion into Dubai's historical roots and linguistic heritage, highlighting music, handcraft, language, cuisine, and art

Emirati music, perfume, cuisine, storytelling, and contemporary art

Dubai's role as a global business hub, exponential growth, and pioneering technological advancements, including sustainability programs, engineering, and space exploration.

Hands-on activities, interactive sessions, and guided explorations

When the students return, they will present what they learned and experienced to their peers at an assembly.

Robotics Team: The Birchbots!

FRC Team 5421, more commonly known as the BirchBots, is BWL's very own high school robotics team. BirchBots is a FIRST Robotics Competition (FRC) team which competes annually in regional and national competitions against other schools around the world. Currently we are the only co-ed private school in New York City with an FRC team, and are very proud of the work our BirchBots produce every year!

The team is only available to upper school students but caters workshops in the lower and middle school divisions to get grades K-12 involved with innovation and STEM. Robotics is a great way for BWL students to learn engineering and get involved in an extracurricular activity that reaches beyond the classroom. In addition to teaching construction, development, and technology, Team 5421 teaches real-world skills, like teamwork, leadership, management, and more! Most of all, our BirchBots emphasize fun and community, banding together to create a new robot with different objectives every school year in just 9 weeks!

Starting in Fall 2023, BWL is launching a new Robotics team for students in 4th-8th Grades. The team will compete in the FIRST Lego League (FLL) Challenge program.

Students will learn the necessary skills to not only build complex robots, but also work together as a team to accomplish their common goal. With veteran BirchBots on hand to provide guidance and advice, as well as a dedicated faculty coach, the Lower/Middle School Robotics team is a unique opportunity for students to explore

the world of competitive robotics.

The Senior Project

This six-week program gives BWL seniors the opportunity to access experiences beyond the classroom in areas of interest to them. This program is tailor made for students, who are able to find fulfilling positions in a field of their choosing, drawing upon the extended BWL community, including alumni, parents, and friends of the school.

The project consists of a minimum of 20 hours per week for six weeks. Students engage in either an internship, an employment opportunity, or service learning in the wider community. Students who are taking Advanced Placement or Constellation Learning courses participate in a modified project.

Community Service

The extended curriculum at the Birch Wathen Lenox Upper School is focused on having our students interact with the community. The extended curriculum contributes to the personal and social growth of our students and increases their awareness of the larger community through their involvement in a guided program of community service.

The Birch Wathen Lenox Upper School has a thriving community service program. We view service as an essential part of our mission to instill the values of integrity, loyalty, and civility in each of our students, and therefore, we strongly encourage our students to engage in meaningful, impactful service, both inside and outside of our school community. The Dean for Student Life is dedicated to helping students find suitable service opportunities.

English



English 9: Foundations of Literature **5 periods**

In the first year of English in the Upper School, students read a range of literary classics including *The Odyssey*, *A Raisin in the Sun*, *The Catcher in the Rye*, and *A Midsummer Night's Dream*. Students will sharpen their analytical skills through discussions and written assignments.

English 10: World Literature **5 periods**

(Required, Sophomores) In nine months, this class touches upon the literary contributions of five continents and covers the four major genres. Through classroom discussions, debates, a healthy amount of writing assignments and grammar as needed, the course intends to shape articulate English students, ready for the upper levels of high school. Texts may include *Things Fall Apart*, *Othello*, *Night*, *Frankenstein*, *The Kite Runner*, *Master Harold and the Boys*, *Persepolis* and others.

English 11: American Literature **5 periods**

(Required, Juniors) This course will examine the development of the American identity from the Puritan era to the present. We will ask three central questions: What is the American Dream as opposed to the reality? What does it mean to be an insider/outsider? How do race and gender affect the lens through which social mobility is both experienced and viewed? Ultimately, students will gain insight into their own lives through the discussion of aspiration, identity, and social class. Authors may include Baldwin, Dickinson, Emerson, Morrison, Fitzgerald, Frost, Hawthorne, Hemingway, O'Brien, O'Connor, Miller, Roth, Plath, Sexton, Whitman, and Wright, many of whose themes coincide with the students' American History class.

AP English **5 periods**

(Elective, Seniors, by permission of instructor) In AP English, students will read celebrated novels, poetry, drama, and short stories ranging from the 16th century to 21st century. During highly interactive seminars, students will learn to discuss literature, and write about it, based on careful observation of textual details, such as the work's structure, diction, style, theme, and tone. In addition to rigorous classroom discussions and writing assignments, students will also analyze the historical and cultural context of our different texts. Throughout the year, we will practice the structured writing and close reading skills

that will lead to success on the AP Literature and Composition exam in May. Authors include: Austen, Chekhov, Hurston, Ibsen, Joyce, Shakespeare, and Woolf, among others.

Rhetoric and Media Analysis 4 periods

(Elective, Seniors) There is a constant stream of messaging being delivered to us everyday from all sorts of media: major news organizations, social media platforms, talk shows, and even the people you speak with every day. Which messages break through the media clutter and why? What is the difference between the media and journalism we should trust, and the media we shouldn't? How do different audiences understand these messages? How can you develop your voice to be heard among the crowd? This course will use the study of rhetoric to help answer these questions. Students will learn rhetorical theories and structures, analyze various media formats such as journalism, social media, and public speeches, learn to write a rhetorical analysis, and develop their own speeches and editorials for the school newspaper.

Studies in Shakespeare

Short Stories and Creative Writing 4 periods

(Elective, Juniors and Seniors) For students who enjoyed reading Shakespeare in previous years, this first semester class will explore four more of the Bard's plays - examining the language, discussing the plot, and exploring the themes within *The Tempest*, *Hamlet*, *Macbeth* and *King Lear*. Analytical writing will be a key component of the class, but we will also mix in performance of some of the most famous scenes and speeches from each of the plays.

Please note: Studies in Shakespeare will lead into Short Stories and Creative Writing

A vividly written snapshot of a single moment can seem to effortlessly capture a lifetime; however, writing a great story takes, among other things, hard work and technical mastery. In the second semester, we will study the craft of the short story both through reading models of great stories and then writing our own creative pieces. We will explore elements of craft such as tone, symbols, point of view, and dialogue through both creative exercises and expository writing. We will read a variety of masters including Baldwin, Chekhov, Carver, Hawthorne, Hemingway, Jackson, Kafka, Kincaid, and O'Connor.

Contemporary Drama 4 periods

(Elective, Juniors and Seniors) This course will focus on major plays in the contemporary American theater. We will start by reading plays from the 1970's and work our way up to the present day, reading highly-anticipated plays premiering in New York this year. Plays will cover pressing issues in contemporary society, and students will read and analyze scripts from a critical perspective. They will also understand the plays dramaturgically — that is, they will learn how theater artists use literary analysis to make stories come alive onstage. The class will include in-class script reading, as well as analysis of film adaptations. There will also be a unit in which students apply their new understanding of the form through writing their own plays and screenplays. Playwrights covered will include Suzan Lori-Parks, August Wilson, Tony Kushner, Annie Baker, Paula Vogel, and Branden Jacobs-Jenkins.

History



History 9: World 1 5 periods

(Required, Freshmen) World History is part of a two-year sequence, with the ninth grade covering material from the Stone Age up to the Renaissance and Reformation. The course will cover both Eastern and Western civilizations and cultures, and will emphasize comparative political, economic, social, and intellectual developments and interactions.

History 10: World 2 5 periods

(Required, Sophomores) This course is a continuation of the ninth grade program. Major topics to be treated in depth will include the Industrial Revolution, Nazism, and Communism, World Wars I and II, and the evolving relationships between Europe, Asia, and Africa.

History 11: American 5 periods

(Required, Juniors) This course is designed to introduce students to the major events, topics, themes, and people of American history. It is organized chronologically, moving from the Age of Exploration to the end of the Cold War. Within this framework, emphasis is placed on developing an interdisciplinary understanding of each period. Besides political history, the course stresses economic development and culture and the relationships among them.

History 11: AP American 6 periods

(Juniors, AP by permission of instructor) This course is an in-depth survey of American history that combines a study of political, economic, intellectual, and social history with training in the techniques of historical analysis. A textbook will supply a basic framework, but most of the reading will be drawn from primary sources and the work of historians. The aim of this course is to broaden the students' understanding of the nature of history, with particular attention to those groups whose lives and concerns are often omitted from traditional history courses. Discussion is an essential element of the course, and students will be expected to deliver seminar reports in addition to weekly essays; writing assignments will develop the student's ability to select evidence, to analyze sources, and to organize ideas. Students who successfully complete additional requirements will be prepared to take the Advanced Placement examination in American History. This course requires intensive writing.

AP Art History 4 periods

(Elective, Juniors and Seniors) The AP Art History covers the form and content of the global art world. Students will research, discuss, read, and write about artworks, the artists who make them, the techniques they utilize, and the responses and interpretations of them. As stated on the College Board website, “by investigating specific course content of 250 works of art characterized by diverse artistic traditions from prehistory to the present, the students develop in-depth, holistic understanding of the history of art from a global perspective. Students learn and apply skills of visual, contextual, and comparative analysis to engage with a variety of art forms, developing understanding of individual works and interconnections across history. AP Art History is the equivalent of a two-semester introductory college or university art history survey course. There are no prerequisite courses for AP Art History.” Students will be assessed through weekly quizzes, monthly tests, in-class writing, homework writing, and individual projects. A great deal of special project extra credit will be offered. A word to the wise: AP Art History has a reputation. There is a great deal of writing involved, a great deal of memorization, and a great deal of thinking. It is also terribly rewarding, and with these tools, you may go anywhere in the world and understand that place in greater clarity and to greater depths. If you want to be a sophisticate, I’ll see you there.

History of Capitalism, Finance, and Financial Crises 4 periods

(Elective, Juniors and Seniors) This course will provide an overview of the history of capitalism, finance, and financial crises from the development of capitalism in Europe to the Great Recession of 2007-2009. Capitalism is one of the driving forces in modern society, yet many have only a vague sense of how to define it or its history. The course will examine the growth of capitalism through the industrial revolution and the spread of the global financial system. Particular attention will also be given to key concepts and modern institutions such as the role of the Federal Reserve and other central banks, monetary policy, and markets.

A significant amount of the course will be devoted to an in-depth analysis of the housing market bubble, the Great Recession, and impact of these events. The class will draw on a rich array of primary sources including articles from *The Financial Times*, *The New York Times*, and *The Wall Street Journal*, as well as government documents, and secondary sources including *The Big Short* by Michael Lewis, *Too Big To Fail* by Andrew Ross Sorkin, *This Time is Different* by

Carmen Reinhart and Kenneth Rogoff, academic articles, and films. The course will involve a significant research paper in which students will select one or two financial crises from the 20th or 21st centuries to research.

New York City: A Living History 4 periods

(Elective, Juniors and Seniors) This course will look at New York's history from pre-European contact through the present day. It will cover pivotal moments in New York's history, such as the fabled \$24 purchase of Manhattan, the development of business and the arts, and the rise of the modern metropolis. Students will encounter a variety of primary and secondary sources to further their understanding of the city's history, including *The Island at the Center of the World*, by Russell Shorto, *Gotham: A History of New York City to 1898*, by Edwin Burrows and Mike Wallace, and *Empire City*, by Kenneth Jackson. This course will also focus on themes such as race, gender, pop culture, and social reform, and students will use the city as a living resource to aid in their learning. Students taking this course will look deeply into the social, political, economic, and intellectual changes that have occurred throughout New York's history, and evaluate how they have shaped the city into what it has become today.

The World Since 1990 4 periods

(Elective, Juniors and Seniors) This class picks up where the World History and American History courses often stop: the late 1980s. The goal is to give you a chance to understand the impact of events and developments that took place since then: the dissolution of the Soviet Union, the rise of China as an economic powerhouse, growing income inequality, the invention of the internet, 9/11 and the invasion of Iraq, white nationalism in the U.S. and elsewhere, the tense relations with Russia, and accelerating global climate change, to take some prominent examples. Since there is no satisfactory textbook treatment for almost any of this, we will rely mostly on articles and film.

Math



Algebra 1 **5 periods**

(Required) This course is designed to secure the basic skills of algebra. Topics include evaluation of expressions and formulas, properties of numbers, solving linear and quadratic equations, real numbers, factoring, inequalities, relations and functions, graphing, radicals and polynomials, and problem solving. Students also apply algebraic concepts to geometry, statistics, and probability where appropriate. The TI-83 graphing calculator is used not only as an aid in calculation but also to help teach functions and graphing. (Students who have taken Algebra I in eighth grade will take Algebra II in tenth grade.)

Algebra 2 **5 periods**

(Required) Algebra 2 is an intensive course where practice in the fundamentals of algebra is continued and extended to include introductions to the more advanced concepts. Topics covered include linear and higher degree equations in one, two and three variables, inequalities, the quadratic formula, functions, conic sections and complex numbers. A wide range of word problems help students integrate the basic ideas of algebra into their everyday lives as well as other school subjects. The TI-83 graphing calculator is used extensively, not only as an aid in calculating, but also to teach concepts about functions and their graphs.

Geometry **5 periods**

(Required, Freshmen and/or Sophomores) This course is a study of Euclidean geometry in the plane with some work in three dimensions. Emphasis is given to the logic of geometry and to developing an appreciation of deductive reasoning. Topics covered include parallel lines, congruent triangles, quadrilaterals, similar triangles, the Pythagorean Theorem, circles, and area. Emphasis is also given to problems that apply geometric concepts to real-life situations in areas such as sports, space, biology, health, architecture, geography, history, art, and literature.

Precalculus **5 periods**

(Elective, Juniors and Seniors) This course begins with both a review and an extension of advanced algebraic concepts. The two major topics emphasized are exponential and logarithmic functions and rational functions with asymptotes. The second semester consists of a thorough study of trigonometric functions, graphs, identities, and equations. The course concludes with introductions to sequences. The TI-83

calculator is incorporated into the curriculum and is used daily during class. The course is demanding, and equally stresses applications and skills together with the capacity to develop clear mathematical thinking.

Precalculus Honors 5 periods

(Elective, Juniors by permission of instructor) This course begins with both a review and an extension of advanced algebraic concepts. The two major topics emphasized are exponential and logarithmic functions and rational functions with asymptotes. There is a thorough study of trigonometric functions, graphs, identities, and equations. The second semester includes an introduction to sequences and series, parametric, polar and vector functions, limits, and an introduction to basic rules of differentiation. The TI-83 calculator is incorporated into the curriculum and is used daily during class. The course is demanding, and equally stresses applications and skills together with the capacity to develop clear mathematical thinking.

AP Calculus AB 7 periods

(Elective, Seniors, by permission of instructor) This course will cover the syllabus for the Advanced Placement Calculus AP Examination. Topics covered include limits, rules of differentiation, practical applications of differentiation, Rolles' Theorem, Mean Value Theorem, extrema, The Fundamental Theorem of Calculus, methods of integration, and practical applications of integration. The TI-84 graphing calculator is used extensively throughout the course.

AP Calculus BC 7 periods

(Elective, Seniors, by permission of instructor) This course will cover the syllabus for the Advanced Placement Calculus AP Examination. Topics covered include limits, rules of differentiation, practical applications of differentiation, Rolles' Theorem, Mean Value theorem, The Fundamental Theorem of Calculus, extrema, methods of integration, and practical applications of integration. In addition to the topics listed under AB Calculus, students will explore many ideas presented with functions in parametric, polar and vector form. Additional techniques of integration are covered as well as infinite series and Taylor series. The TI-84 graphing calculator is used extensively throughout the course.

AP Statistics 6 periods

(Elective: Juniors and Seniors, by permission of instructor) This course will cover the syllabus for the Advanced Placement Statistics Examination. The four conceptual themes in the course are:

1. Exploring Data: Describing patterns and departures from patterns
2. Sampling and Experimentation: Planning and conducting a study
3. Anticipating Patterns: Exploring random phenomena using probability and simulation
4. Statistical Inference: Estimating population parameters and testing hypotheses.

Students will investigate the properties of many different types of distributions. These include the standard normal, t-, binomial, chi-squared, and others. The inference section includes an in-depth look at confidence intervals. This class will include many real-world situations that are both challenging and interesting. Students will make use of the TI-83 or TI-84 extensively throughout the course.

Calculus 5 periods

(Elective, Seniors, by permission of instructor) This course will cover the fundamentals of calculus, but at a slightly slower pace and intensity than the AP Calculus courses. Topics covered include limits, rules of differentiation, practical applications of differentiation, Rolles' Theorem, Mean Value theorem, extrema, methods of integration, and (time permitting) practical applications of integration. The TI-83 graphing calculator is used extensively throughout the course.

Finite Mathematics 3 periods

(Elective, Juniors and Seniors) This course will be focused on developing business plans (Shark Tank style!), investing in the stock market, and we will spend a lot of time on marketers and their sales tactics. Business plans and marketing will cover the first part of the course, investing – the second. In the first semester, you will learn about a company's legal structure, how to develop a business plan and learn about various aspects of operating a business. And you will learn about ways marketers use psychology to get us to buy their products. In the second semester, we will look briefly at the banking industry and its characteristics and spend most of the time learning about the world of investing (i.e. stocks, bonds and mutual funds).

Personal Finance 1 period

(Required, Seniors) Once students graduate from high school and their next phase in their adulthood begins, they will be required to make financial decisions for which they may be unprepared. This is a course required for all seniors, with the purpose of ensuring they'll have the information to make prudent financial decisions. Topics in the course will include how to create a budget, prepare income tax, review bank statements

and balance accounts, and invest for retirement. By the course's end, students will have learned about apartment leases, the purchase of a home, the pitfalls of credit card debt, and the cost of living as it relates to location and projected income.

Science



Science 9: Biology 6 periods

(Required, Freshmen) This is an introductory course that covers the basic principles of biological science. Biology is presented both historically and conceptually, relating the material to everyday life wherever possible. In the laboratory, students have the opportunity to gain experience in scientific methods and to observe biological theories in action. The course aims to give students a broad exposure to biological concepts.

Science 10: Chemistry 6 periods

(Required, Sophomores) This full-year survey course offers students sufficient elementary theory and descriptive material for a complete and thorough program of study. It prepares the student for future science courses both at the high school and college level. The laboratory work stresses understanding of chemical concepts, basic laboratory techniques, and the development of scientific accuracy. Material covered includes stoichiometry, electronic structure, gas laws, chemical bonding, organic chemistry, kinetics, equilibrium and acid-base theory, redox reactions, and nuclear chemistry.

Science 11: Physics 6 periods

(Required, Juniors) This is a full year laboratory-based course that will focus on the laws and principles connected to the concepts of matter, force, and energy. A strong emphasis will be placed on developing an understanding of the physics associated with our daily lives. Set within this context, this course will explore traditional topics such as mechanics, light, sound, and electricity. We will also extend our inquiry into advances being made in the most current lines of research and will probe even further into what scientists believe lies in our future.

AP Biology: 7 periods

(Elective, Seniors by permission of instructor) This is a college-level full-year biology course. The content of this course closely follows the syllabus outline of the CEEB Advanced Placement Course Description, and each student has the option to take the Advanced Placement exam. Through this course students receive an in-depth understanding of biological processes and principles. Students will be introduced to such things as biostatistical tools used in research, appropriate computer applications, gel electrophoresis, and other advanced laboratory techniques. Students will also be made aware of the controversial aspects of modern biology and of the professional opportunities available to them. Prerequisite Chemistry and Biology I.

AP Physics Precalculus Required**7 periods**

(Elective, Seniors, by permission of instructor) This is a college-level full-year physics course. The content of this course closely follows the syllabus outline of the CEEB Advanced Placement Course Description, and students will take the Advanced Placement exam in May. This course involves an Algebra and trigonometry understanding of physical phenomena, problem-solving techniques, and, where possible, the application of physics to other disciplines. Topics covered include but are not limited to fluid mechanics, thermodynamics, electro-magnetism, waves and optics as well as modern nuclear physics. A laboratory component is incorporated to give students concrete experience with the concepts that are studied.

Forensic Science 5 periods

(Elective, Juniors and Seniors) This full year science course will enable students to use the combination of biology, chemistry, and physics to learn about the criminal and civil laws that are enforced by our criminal justice system. Examples of topics that will be covered include: investigation of fingerprints, fiber analysis, evidence analysis, poisons, and many more. Students are taught the proper collection, preservation, and laboratory analysis of various samples. This will be a lab-based course that will meet 4 times a week with one double period to enable students to best understand crime data collection.

Human Anatomy and Physiology 5 periods

(Elective, Juniors and Seniors) This full year science course will enable students to learn about the structure and function of the various human organ systems. A primary focus throughout the course will be understanding the concept of homeostasis, or how the human body is able to maintain a state of healthy balance despite external changes. This will be a lab-based course and there will be a number of lab activities designed to enable students to understand the inner workings of their own physiological mechanisms.

Roots of Scientific Inquiry 4 periods

(Elective, Juniors and Seniors) This full-year survey course is designed to introduce students to the history of scientific advancement across human history and discuss how we know what we know about the world and why. The course will begin by examining the prehistoric and pre-Socratic origins of science as a means of aiding in human survival and end with an understanding of how science and critical, data-driven processes are woven into every aspect of our modern society. The course will place a special emphasis on discussing and debating core questions that have been at the heart of science for millennia - such as "what is matter?" and "how do we know where and when we are in the universe?" - and highlight the contributions of a diverse set of scientists from Europe, Asia-Pacific, Africa, and the Americas to our collective body of knowledge.

Assessment is partially based on traditional methods such as homework and quizzes, but there are also more student-driven assignments such as analysis of modern science news through a historical lens and full-class debates in which students will assume the roles of famous scientists and prove their theories live in the spirit of London's Royal Society. The students will also visit the American Museum of Natural History to further engage with real artifacts from scientific history. 17

World Languages



French 1

5 periods

Covering basic structure and vocabulary, this course provides a strong foundation in speaking, listening, and comprehension for beginning French students. Elementary grammatical and idiomatic structures are introduced, as well as appropriate reading material. Students learn to communicate about a variety of topics, and engage in conversations to develop their self-expression. Students also gain an understanding of the Francophone culture.

French 2

5 periods

This course enables students to develop their confidence and ability to use French in a broader range of situations by building upon vocabulary and grammar learned in French I. Short stories, newspaper articles, various media and cultural lessons broaden their knowledge and understanding of the French culture and serve as a basis for discussions and writing assignments.

French 3

5 periods

This course continues to feature a review of basic and intermediate grammar concepts in order to create a strong foundation for more abstract and advanced elements of the language. Students further develop their vocabulary and acquire an ever-expanding communicative ability, as well as an increasingly detailed understanding of the Francophone culture. Discussions are conducted in French, and students are expected to ask questions, respond, and discuss in basic French. In addition to written and oral assessments, students are evaluated through personal compositions, reading comprehension assignments, and individual projects.

French 4

5 periods

Intensive study of grammar continues in this course, as students strengthen their language skills by reading short stories, newspaper articles, and poetry. The class is conducted in French to develop fluency. All aspects of language study (reading, writing, speaking, and listening) are addressed. The course includes conversation and discussion, composition, and reading of literary and non-literary texts such as current periodicals. The study of relevant cultural topics continues.

French 5 Advanced Grammar and Writing

5 periods

This class will enable advanced students to hone their knowledge and mastery of oral and written French language. Complex grammatical structures and specialized vocabulary lead the way to a more

sophisticated linguistic level and greater cultural insight. An increased level of fluency is attained through oral activities, including role-playing discussions and/or presentations on pertinent topics, or literary readings. Purposely chosen audiovisual sources will enable students to reinforce their aural comprehension. Compositions complying with the French dissertation format will be written on a wide variety of subjects.

Spanish 1 5 periods

This course presents students with thematically integrated vocabulary, grammar, and culture leading to communication on a wide variety of topics. Students develop the ability to understand, write, and speak Spanish. In partner and group activities, they engage in conversations to provide and obtain information, express feelings and emotions, and communicate opinions. Students gain an understanding of Latin American and Spanish cultures through making comparisons with their own cultures.

Spanish 2 5 periods

This course enables students to develop their confidence and ability to use Spanish in a broader range of situations. They become more proficient communicators by building upon vocabulary and structures learned in Spanish I. Varied activities and special projects encourage oral and written expression. Students continue gaining an appreciation of Spanish and Latin American cultures through more advanced readings and research.

Spanish 3 5 periods

In this course, oral fluency is further developed. Students expand their vocabulary base, grammar skills, and knowledge of Spanish and Latin American cultures by reading, writing, and discussing.

Spanish 4 5 periods

The class is conducted in Spanish to foster fluency. Students make presentations based upon their research, hone their composition skills, and analyze literary texts. An emphasis is placed on idiomatic phrases, as well as cultural and semantic differences across Spanish-speaking countries.

Spanish 5: Culture and Conversation 5 periods

This course is designed to further develop conversational skills. With emphasis on various genres of film, the students will also use newspapers, magazines, the Internet and other "authentic" materials to engage in informed discussion, and produce skits, oral and PowerPoint presentations. The study of grammar will focus on particular difficulties, such as the distinction between *por* and *para*, *ser* and *estar*, and the preterite and imperfect tenses to advance the

students' oral and writing proficiency.

AP Spanish Language 6 periods

(Elective, by permission of Language Chair) AP Spanish Language is intended for students who wish to develop proficiency and integrate their language skills, using authentic materials and sources. Students who enroll should have an advanced knowledge of the language and cultures of Spanish-speaking peoples and should have attained a reasonable proficiency in using the language. The AP Language course will help prepare students to demonstrate their level of Spanish communicative proficiency. The course is meant to be comparable to third year (fifth or sixth semester) college or university courses that focus on speaking and writing in the target language at an advanced level.

Japanese 1 4 periods

This course introduces the Japanese counting vocabulary. Students learn how to read a calendar, tell time, and express age as they become familiar with basic Japanese sentence structure. The elements of the phonetic alphabet of Hiragana and, subsequently, Katakana, are introduced.

Japanese 2 3 periods

This course continues to build on the skills acquired in Level I. By learning such verbs as to go, to come, and to return, students develop their ability to compose more informative sentences and to communicate about a wider range of topics. As they improve their knowledge of the layered use of Hiragana and Katakana, students become more proficient at writing and reading Japanese.

Japanese 3 3 periods

This course presents vocabulary to express ownership, preferences and suggestions while also building upon the skills acquired in Japanese II. The use and formation of adjectives and the Kanji writing system are introduced.

Japanese 4 3 periods

This course reinforces and builds upon the vocabulary and structures acquired in Japanese III. Students are better able to talk about their daily lives in simple conversation. They develop their ability to write words in Kanji, using the appropriate strokes and shapes. Students will be able to write letters and give a speech in Japanese by the completion of the course.

Japanese 5 3 periods

Students in Japanese V will be able to increase their ability to express themselves in Japanese through themes such as 'Japan Festival', 'A Town Rich in History and Culture', and 'Life and Eco-friendly Activities'. The contents they will learn include how to recommend things, give instructions, and make suggestions. They will acquire grammatical concepts such as potential verbs, conditional terms, and comparisons.

PreAP Japanese 4 periods

This class is a preparatory class for Japanese AP. We will use the Marugoto Elementary 2 textbook, covering chapters four to eighteen, and the entire textbook of Nihongo Yomikaki no Tane, and web-based AP resources. The aim is to prepare students for the AP standard modes of communication: interpretive, interpersonal and presentational by enhancing their reading, writing, speaking and listening abilities. In addition, students will learn how to discuss the AP course themes (Families and Communities, Personal and Public Identities, Beauty and Aesthetics, Science and Technology, Contemporary Life, and Global Challenges) in Japanese.

AP Japanese 5 periods

(Elective, by permission of Language Chair) This class will prepare the student for the AP exam. We will use the Compass Japanese Intermediate Workbook and Resource Book textbooks, and the AP Classroom website as the main study materials. The aim is to master all three AP standard modes of communication: interpretive, interpersonal and presentational by enhancing their reading, writing, speaking and listening abilities. In addition, the student will learn how to discuss the AP course themes (Families and Communities, Personal and Public Identities, Beauty and Aesthetics, Science and Technology, Contemporary Life, and Global Challenges) in Japanese.

Art



Art 9: Studio Art/Photography 1 double period

(Required, Freshmen) This course is composed of two half-year portions. The studio portion will explore a wide range of art materials and techniques. There will be further development of the drawing skills stressed in Middle school, while also emphasizing personal expression. Students will have the opportunity to experiment with various watercolor techniques, and to complete a painting on canvas. For the photography portions, art students will be using their cellphones as cameras to create a visual narrative: which will result in a self-published book made by each student based on a topic of their choosing. The goal is to have them be able to portray their own ideas and interests in their photographs during this long-term project. There is also a short essay which will accompany the final body of work. A few in-class assignments will be sprinkled in between the long-term project throughout the semester.

Art 10: Studio Art 1 double period

(Required, Sophomores) This year-long course will explore a wide range of topics such as collage, self-portraiture, depictions of poetry and the urban landscape through photography. Much of the class time will be spent critiquing and analyzing each student's work in progress. This is an invaluable time to practice how to speak about one's intentions and receive constructive criticism from their peers. This skill will no doubt affect each student's confidence and ability to express themselves with thought and clarity. When we are not reviewing work there will be opportunities for in-class photo shots where instruction and collaboration may take place. When weather permits as a class we will explore Central Park and the surrounding neighborhoods. Each project will provide an opportunity for students to express their feelings and the way they perceive the world through the lens of a camera. They will be encouraged to take chances, embrace their creative side and dare to make something really amazing.

Art 10: Art History 1 double period

(Required, Sophomores) Over one semester, either Fall or Spring, the 10th grade students will be introduced to the major themes of art history from the caves at Lascaux to the movement inspired art animating Chelsea galleries today. Each week in the class, the students and I will discuss and analyze a series of artworks which both characterize a particular art historical period and speak to the culture and history from which they emerged. Framing our journey will be a series of questions concerning one of the oldest dichotomies in art history, that of the natural and the ideal. What does art tell us about the natural world? What does art tell us about how the natural world was conceived at a certain moment? How do artworks tell us about our ambitions, or the ambitions of certain peoples at certain historical times? While we cannot address everything, we will hit many of the great art stars and great artworks. Additionally, the students will track a general formal and technical development concerned with this same natural/ideal issue. Students will be assessed through contributions to the discussion, in-class writing, homework writing, and special projects. Extra credit quizzes will be frequently offered to those that are inclined to

memorization. Once completed, the students should be able to gallop over to the Metropolitan and hold their own in a discussion with anyone about the many great treasures of cultural history.

Photography 1 2 double periods

(Elective, Juniors and Seniors, by permission of department chair) This year- long course is structured around the students learning both technical and aesthetic skills. Camera assignments are given and darkroom techniques are taught. During the second semester, the students are encouraged to choose a theme or style of photography to explore more fully.

Photography 2 2 double periods

(Elective, Seniors by permission of department chair) This year-long course focuses on the development of a personal style. Slide lectures and discussions revolve around analyzing work by master photographers and the students' own work. The final project involves the making of 11" x 14" enlargements and a portfolio in which to present their work.

Studio Art 11 2 double periods

(Elective, Juniors, by permission of department chair) This full year course involves the exploration of art materials and techniques including drawing in various media, painting in watercolor and acrylic, linoleum block printmaking, and 3D construction. Students will develop skills in observational realism as well as non-figurative abstraction. We will examine the work of prominent artists, as well as many cultural traditions, and discuss how art can be used to explore and comment on the world around us. Students will have the opportunity to make individual choices as to subject matter and materials, and to develop their artistic vision in a relaxed atmosphere. A private sketchbook journal is kept.

Studio Art 12 2 double periods

(Elective, Seniors by permission of department chair) This course continues the activities of Studio Art 1 with further emphasis on individual expression and exploration of materials. We will practice art skills through drawing and painting projects, but students will also have the opportunity to work independently. During the third quarter each student will design a Passion Project inspired by a cause or event of personal meaning, utilizing media of their own choosing. All work is done during class time, including sketching outdoors, and possibly a gallery or museum visit. Portfolios for college applications can be prepared if desired.

Computer Science



Introduction to Computer Science **3 periods**

(Elective: Sophomores, Juniors, and Seniors) This immersive, project-based course guides students through the exciting world of coding, with a focus on web development. As students delve into this domain, they will cultivate creativity, critical thinking, and problem-solving skills. The first semester is dedicated to mastering website design techniques, utilizing HTML, CSS, and modern development frameworks such as Bootstrap. Students will learn how to create visually appealing, responsive, and user-friendly websites. In the second semester, students will be introduced to the versatile JavaScript language, which will serve as a foundation for algorithmic thinking and computer programming. Key topics include problem analysis, control structures, program design, and website interactivity. As the course progresses, students will delve into the captivating world of game development. Throughout the year, students will engage in discussions and activities addressing the legal, social, and ethical implications of technology in today's society. Additionally, they will be exposed to a diverse range of career opportunities in the fields of computer science, technology, and engineering, empowering them to make informed decisions about their future pursuits.

AP Computer Science **6 periods**

(Elective: Juniors and Seniors. Prerequisite: Introduction to Computer Science or instructor approval) The AP Computer Science course offers a comprehensive introduction to programming concepts and problem-solving using the Java language. Designed to align with the College Board AP Computer Science A curriculum, this course covers key topics found in an Introduction to Object-Oriented Programming college-level course. Throughout the course, students will learn to develop effective solutions by designing algorithms, data structures, and control structures, and writing well-documented Java programs. With a strong emphasis on hands-on learning, the course features a significant laboratory component that enhances students' practical skills. Assignments will encompass a variety of tasks, ranging from short individual exercises to long-term, collaborative projects. Students are expected to have access to a computer outside of class for at least three hours per week. In May, all students will take the Advanced Placement examination, which gives the opportunity for students to earn college credit in some circumstances. This rigorous course prepares students for success in the dynamic world of computer science and programming.

Advanced Topics in Computer Science (Honors) **5 periods**

(Elective: Seniors only. Prerequisite: AP Computer Science and by permission of instructor) This engaging, project-based course is designed for highly motivated students who have completed introductory and AP-level computer science courses. Building upon the foundation established in previous coursework, the Advanced Topics class delves into abstract concepts commonly encountered after an Introduction to Object-Oriented Programming college-level course. Throughout the course, students will explore a variety of topics, including Data Science, algorithm analysis using Big-O Notation, and the implementation of intricate Data Structures

such as stacks, queues, linked lists, trees, and graphs. The Python programming language will be employed to reinforce theoretical concepts with hands-on coding assignments, which will range from short individual tasks to creative, team-based projects. No prior experience with Python is required, as the course commences with a Python bootcamp unit designed to familiarize students with the language's syntax. Each student must have access to a laptop computer equipped with an Apple, Microsoft, or Linux operating system. By the end of this course, students will have gained a deep understanding of advanced computer science topics, further preparing them for success in the rapidly evolving field of technology.

Music and Performing Arts



A Cappella 2 periods

(Elective, Grades 9-12, by audition only) Students who have auditioned for BWL's a cappella groups will rehearse at least twice a week, and perform at many events including the Holiday and Spring concerts. Rehearsals concentrate on vocal technique, ear training, and ensemble work. These rehearsals are expertly taught by a former member of the renowned Yale Whiffenpoofs. The MsChords is an all-girls ensemble, and the Beaux Ties is an all-boys ensemble.

Instrumental 1 period

(Elective, Grades 9-12) This ensemble focuses on Upper School students who wish to continue their studies in the violin, viola, and cello. It is a full year class that learns advanced and varied repertoire to perform in the Holiday and Spring concerts.

Music Production 1 period

(Elective, Grades 9-12) In this non-performance class, students will create music compositions using a Digital-Audio-Workstation. This is a project-based course where students will work independently as well as collaboratively to analyze various forms of music and create re-imagined or original songs. The projects range from creating musical parodies, to writing original commercial jingles, to making their own podcasts. Course participation requires access to a laptop and headphones.

Rock Band 1 period

(Elective, Grades 9-12, must have previous instrumental experience & by permission of instructor) Rock Band is a combination of instrumental workshop and performance ensemble. Students pick repertoire based on interest and ability, and learn arrangements of a variety of rock, pop, and jazz classics. Rehearsals culminate in performances at the Holiday and Spring concerts.

Vocal Ensemble 2 periods

(Elective, Grades 9-12) Vocal Ensemble is open to all students in Grades 9-12. Upper School Vocal Ensemble performs twice a year at the Holiday and Spring concerts. Students will learn basic vocal and performance techniques.

Audition Skills 1 periods

(Elective, by permission of instructor This class will be offered to those interested in learning

more about the professional audition process for theater, tv/film, and voiceovers. Weekly assignments will include finding appropriate material for real world auditions and presenting it to the class. 11th and 12th grade students who are interested in auditioning for college theater programs and would like to submit a theater supplement/portfolio to enhance their college applications will have the opportunity to organize and workshop their materials in this class. I will help each student pick and work through appropriate and challenging material, including monologues and songs. We will hold mock auditions and bring in guest speakers, including casting directors and producers. At the end of the year, everyone will have a book of ready-to-go audition material and will have the opportunity to film their pieces for college and summer programs.

Theater 1 2 periods

(Elective, Grades 9-12) This full-year course will give students an overall idea of what goes into creating a successful performance on the stage. Students will be active members of this class by getting up and 'performing' each week. Students will spend 2-3 weeks at a time focusing on various topics including improvisation, monologue work, scene study, and musical theater, among others. Special guest teachers will drop by throughout the course to teach unique specialties and discuss their experience in the professional theater world. The year will culminate in a showcase for friends and family.

PANyc: Performing Arts in NYC 1 period

(Elective: Juniors and Seniors, by permission of instructor) Performing Arts NYC (PANyc) is an interdisciplinary arts elective for students in grades 11 and 12. The class is a deep dive into the world of performing arts in the greatest performing arts city in the world, NYC! We will go as a class to a show or concert once a month, discuss everything that went into the performance, and have a variety of written and performance-based assignments inspired by our trips. Our field trip events will always occur on weeknights (once a month) and attendance at the events is mandatory. There may be an additional cost or fundraising to partially defray the cost of the tickets.

THEATRICAL PRODUCTIONS (After school & some weekends)

(Scheduling Varies Per Student & Production) There are three performance opportunities for students interested in theater. Auditions for the fall play take place in September with performances in the BWL auditorium occurring in Mid-November. In early December, students can audition for the combined Upper and Middle School musical which takes place in March at an off-Broadway theater. Students who are interested in being involved in these productions, but may not be interested in performing, can sign up to be a part of our technical crew. Lastly, high school students are invited to be a part of our devised show in the Spring. The devised show is a student-run production where students can choose to write, direct, and/or act. The entire process is under the guidance of a member from the Theater Department faculty.

Physical Education



Physical Education, as outlined by the New York State Department of Education, is one of the six 'core' requirements for graduation. The Physical Education Department takes this responsibility seriously and strives to help each student successfully complete varied Physical Education activities. Our philosophy is one of allowing students to participate actively in class and on teams, so as to fully realize their potential both as students and as athletes. All students are encouraged to reach their highest levels of achievement.

The development of basic fitness concepts for both immediate needs and the future demands encountered throughout life are emphasized. Students participate in a variety of activities that will help to satisfy their need for leisure-time activities with a life-long enjoyment and appreciation of the value of physical activities. Students are given the opportunity to practice and learn a variety of fundamental motor skills through individual and group activities such as fitness and conditioning, badminton, cricket, basketball, touch football, softball, volleyball, soccer, and team handball. Students in ninth through twelfth grades who are on varsity teams are exempted from Physical Education during their sport season to enable them to study during the school day.

Health

Students in the tenth grade must complete a course in health education required by the State of New York. The health class is a forum for the discussion of extremely relevant information. It provides students with an opportunity to identify their own attitudes and beliefs concerning critical health issues, as well as an opportunity to listen to the beliefs and attitudes of others.

Fall	Winter	Spring
Boys' and Girls' Varsity Soccer Teams	Boys' Junior Varsity Basketball Team	Boys' and Girls' Varsity Tennis Teams
Girls' Varsity Volleyball Team	Boys' and Girls' Varsity Basketball Teams	Boys' and Girls' Varsity Track and Field Teams
Boys' and Girls' Cross Country Teams	Coed Varsity Squash Team	Coed Varsity Golf Team
	Coed Varsity Swim Team	Boys' Varsity Baseball Team

College Counseling



The College Counseling Team is comprised of the Director of College Counseling, the Co-Director of College Counseling, the Upper School Head, and the Head of School. This team is committed to helping the students of Birch Wathen Lenox find appropriate college and university matches. While many of our graduates attend the most selective colleges in the country, we believe it is much more important that they find schools that "fit" them; schools where they are most likely to meet their full potential academically and personally. Through an individualized, supportive process, students are guided toward potential matches, taught how to differentiate colleges and universities, and encouraged to fully research each of their prospects. The support and guidance of the College Counselors continues through the application stage and beyond, to when students make their final decisions.

While the College Counselor provides information and guidance during several meetings in students' freshman and sophomore years, the College Counseling process begins in earnest in the Junior year. Students take the PSAT in October of that year and receive their results during a one-on-one meeting with the College Counselors. During that meeting, the student's transcript performance to date is also discussed. Junior Seminar begins in the second semester. In this once-weekly class, students are introduced to tools and strategies to use during their college searches. As well, topics such as interviews, college visits, and the essay are covered in depth. At our Junior College Night in early spring, students and parents are invited to hear from two Directors of Admissions, listen to their advice regarding college admissions, and ask questions of them. Then, at the Manhattan College Fair, where Birch Wathen Lenox (along with ten other Manhattan private schools) hosts representatives from over one hundred and thirty colleges and universities, students can ask questions and request information from schools that interest them.

During the spring of their Junior year, students meet individually with the College Counselors, who provide college and university suggestions based on input from the student as well as the student's academic record and standardized testing. By the start of their Senior year, students are encouraged to have preliminarily narrowed their lists to approximately twelve to fifteen schools. Students meet with the College Counselors in early fall, first one-on-one and then along with their parents, to further refine their lists. During the months of September, October and November, representatives from over fifty colleges and universities visit Birch Wathen Lenox to meet with interested students, providing valuable opportunities for students to learn about their institutions; and at our Senior College Night, Seniors and their parents review the application process, along with in-house procedures. Students are free to meet with the College Counselors as often as they wish during the college process.

Student Activities



The following activities are offered in the Birch Wathen Lenox Upper School. Students are encouraged to suggest new activities where appropriate and where a sizable group is interested.

Birch Bots (FRC Robotics Team)

Book Club

Business & Finance Club

Careers in Medicine Club

Debate Team

Drama Club (2 productions – Fall/Spring)

Environmental Club

Film Club

Foreign Policy Club

Glamour Gals & Guys

Leaves (Literary Magazine)

Politics Club

Project EPIC

Prom Committee

Rainbow Society (Diversity Club)

Range (Fashion/LifeStyle Magazine)

Science Olympiad

Spirit Club

Ski Club/Trip

Student Council

The Clarion (School Newspaper)

Women's Group

Yearbook

