



Curriculum Guide

2024-2025



Lower School

2024-2025 CURRICULUM GUIDE

LOWER SCHOOL

Overview

The Lower School includes Kindergarten through Class IV and is committed to educating the whole child and fostering a love of learning. The Lower School program is designed to foster cognitive, social, and emotional growth, and is responsive to variations in rates of development and styles of learning, both of which influence when and how students learn. Teachers encourage creativity, independence, and self-reliance, as well as intellectual discipline and the ability to work and play effectively in a group. The curriculum begins with concrete manipulations with steady growth towards more abstract inferential thinking as students acquire and put to use the symbols of our society. Homeroom teachers in each grade teach reading, English, mathematics, history, current events, and geography, and incorporate technology to reinforce the curriculum. Other Lower School faculty members, specialists in their fields, teach science, modern languages, music, art, library, technology, and physical education. There is a commitment to diversity, equity, and social justice work and education into all Lower School classes. Faculty members engage students in an integrated curriculum involving a number of hands-on activities. The curriculum is an instrument of growth to ensure that a child's early pleasure in exploration remains with her as she learns how to learn in an increasingly systematic way. The Lower School is committed to giving careful attention to individual student needs, emphasizing collaborative learning and interdisciplinary work.

Lower School faculty want students to learn how to think independently, to ask questions, to reason inductively and deductively, and to synthesize their learning. Teachers encourage students to take risks and to use mistakes constructively. The curriculum is designed to teach basic skills systematically; content is a vehicle to address those skills rather than an end in itself. This approach accommodates developmental differences and variations in learning styles, enabling the child to move at her own appropriate pace within the framework of class expectations. Warmth, understanding, and respect are central to our Kindergarten program, which is based on Jean Piaget's concepts of child development. Five classroom teachers use many materials to stimulate each student's imagination, to encourage social and intellectual growth, and to foster the development of a positive self-image. While supporting each child's individual development and learning, we encourage the students to work collaboratively and to become effective group members. The daily class meeting encourages self-expression, builds a sense of community, and fosters discussion skills. Our goal is to help each child delight in exploring reading, writing, mathematics, science, history, and geography in an academic setting. Emphasis on perseverance, concentration, independence, and evaluation of her own work helps the child to develop an effective approach to learning.

ENGLISH AND READING

Nightingale encourages a love of reading and writing. The English and Reading program is designed to prepare students to become fluent readers and writers, good listeners, and confident speakers. Students read a varied selection of literature throughout their time in Lower School, including but not limited to decodable texts, fiction and nonfiction, biography, poetry, folktales, and plays. English and reading are taught daily. The English curriculum, anchored by *The Writing Revolution*, provides regular practice of oral and written communication skills. Each student has opportunities to perform and practice public speaking through poetry, recitation, and drama. Students work on creative and expository writing assignments, poetry, and journal writing throughout the Lower School. They are explicitly taught and guided through each step of the writing process, beginning with brainstorming and ending with publication. Reading, spelling, and handwriting is taught using multisensory techniques. Reading is approached through phonetic and sight word work using PAF as a base, with other programs and material woven into instruction. Daily lessons include spelling, handwriting, vocabulary, grammar, and word processing. Dictation is a part of each reading lesson and approaches accurate spelling through phonetic patterns. Students work in small groups designed to accommodate various learning needs and styles. Reading is part of each child's daily homework.

MATHEMATICS

The mathematics program develops conceptual understanding of key mathematical ideas using a rigorous and coherent model of progression from Kindergarten through Class IV. Students are encouraged to take risks and try new strategies as their understanding of mathematical relationships develops. Readily available manipulative materials broaden logical and creative thinking skills. Abstract concepts are given concrete meaning through a variety of tools. Through a blend of Bridges in Mathematics curriculum, problem solving, and math in contexts, the math program allows each Lower School student to access material through various entry points. Eight periods of math per eight-day cycle provide many opportunities to explore, investigate, and solidify an understanding of numbers and operations, geometry, and measurement while continuing to provide healthy cognitive challenges through in-class discussions and collaborative group assignments.

SOCIAL STUDIES AND GEOGRAPHY

The social studies and geography curriculum provides an introduction to ideas and information from the social sciences. Students are encouraged to discuss current events.

The youngest students gain a broader understanding of themselves in relation to their environment and the world around them, while older students explore different cultures and environments, emphasizing geography, climate, and animal and human adaptation. Basic research techniques are taught, and students work on interdisciplinary cultural projects. Museum trips supplement the program, and visits to community organizations and historic sites are an integral part of the curriculum. The program draws upon materials designed to provide experiences with authentic artifacts and activities.

SCIENCE

The Lower School science curriculum emphasizes the scientific principles governing biology, chemistry, physics, and the earth sciences. Students work to identify structured patterns of matter, order in space, and the interactions of living things. Science is approached as both an organized body of knowledge and as a process encouraging active observation and participation. In the Lower School science laboratory, students will study a different strand of science each trimester (physical science, earth science, life science). Scientific inquiry plays a vital role in the classroom as each student will be expected to keep a science notebook which promotes formulating hypotheses, conducting and organizing research and experiments, participating in field study, and recording and comparing data. Mathematics, technology, and engineering principles are incorporated into the science curriculum each year and students will be expected to complete various in-class projects.

TECHNOLOGY

Our students use technology extensively in the Lower School. All classrooms are equipped with interactive whiteboards and Apple TVs, which enhance interaction with the material as well as collaboration among students; a 1:1 device program begins in Class III. The curriculum teaches students to use the computer as an academic tool as they gain confidence in their ability to explore and create with state-of-the-art technology. Students engage in creative, open-ended problem solving and project-based learning that supports the classroom curriculum, and are taught robotics and programming throughout Lower School, beginning with the use of BeeBots in Kindergarten and continuing through to programming with Scratch and LEGO Robotics. By the end of Lower School, students have acquired skills in keyboarding, word processing, multimedia software, programming, robotics, design, engineering, web-based research, and digital citizenship skills.

SPANISH

The Lower School Spanish Program is designed to build a foundation to inspire lifelong language learners. Language concepts are explored through a combination of engaging

experiences inclusive of a variety of diverse learning styles which encourage active participation and risk taking. An emphasis on the study of the people and places where Spanish is spoken in the world are integral to the curriculum. Each grade level year of study is centered around a particular country or region. Students are provided with multiple opportunities to enhance their reading, writing, listening and pronunciation skills during each class session, while learning about significant, authentic cultural themes and traditions. In addition to their weekly Spanish classes, students also participate in a once per cycle “SING” period as a whole grade, in collaboration with the music department, offering additional exposure to music and the sounds of Spanish. Students use their language skills to connect with native speakers, both through a local partnership with the Carter Burden Senior Center in East Harlem, as well as with Lower Students at a school in Santiago, Chile. After several years of study, students become comfortable using their language skills to ask questions, present information on a variety of topics, and connect with others in the context of real world situations.

VISUAL ARTS

Students learn to use different materials, processes, and techniques in order to express their thoughts, feelings, and perceptions. These explorations lead to meaningful connections to their personal interests and experiences, and foster creative responses to new ideas. Inventive work with art materials is accompanied by direct observation of works of art and design. Through the study of works of art, the development of art vocabulary, and the application of new techniques, students learn to produce and interpret visual imagery with confidence and fluency.

THREE-DIMENSIONAL ARTS

Students explore personal expression through three-dimensional art making. They study a diverse range of artworks and artists, experimenting with various materials to enhance their understanding. Projects encourage students to embrace mistakes and take creative risks, empowering them to discover their own solutions as they brainstorm, manipulate, and create work. Imagination, storytelling, and collaboration are fostered throughout the creative process. By focusing on the process of creation, students cultivate artistic growth and confidence in integrating storytelling with their artworks.

PERFORMING ARTS | DRAMA

Children develop a variety of communication skills through drama and develop ways to participate as both members of a group and as leaders. An emphasis on ensemble work within the classroom encourages students to become responsible members of a cohesive

group. Acting in drama class serves many purposes. It is a means by which students develop social, emotional, physical, and intellectual capacities. In addition, it serves to create and preserve friendships, build problem-solving skills, and establish how to work together in a collaborative way.

PERFORMING ARTS | MUSIC

Music instruction in the Lower School centers on active music-making; students sing, dance, and play instruments in every class. Through playfully scaffolded exploration, Lower School musicians learn to take risks, to listen intently, to collaborate, and to trust their inherent musical instincts. Music literacy and performance skills are taught sequentially using materials from all over the world, fostering global awareness in the classroom and developing the skills to meaningfully engage with both familiar and unfamiliar music. In addition to biweekly small-group music classes, each Lower School student participates once per cycle in a “SING” period, where the entire grade comes together in the black box theater space. This class is used for whole group singing and dancing, playing music games, sharing student work, integrating Spanish instruction, and developing performance repertoire outside of dedicated music class time. We welcome guest artists throughout the year at assemblies and in workshops with smaller groups of students. Recent guests have included Grupo Ribeiro, a Brazilian drum and dance ensemble, Flor de Toloache, New York’s first all-female Mariachi band, Isaac Sawyer, beatmaker and hip hop artist and the House of Oricci, a Vogue freestyle dance house. Lower School students perform in concerts and special assemblies throughout the year, including the Lower School Winter Concert, Grandparents and Special Friends Visiting Day, and grade-level spring concerts. Students have the opportunity to study piano, violin, guitar or voice as part of our robust after school private lesson program.

PERFORMING ARTS | DANCE

Designed to enhance each student’s ability to enjoy and appreciate dancing, the Lower School dance curriculum includes proper warm-up techniques, fundamental movement components, rhythm, motor skills, and creative movement concepts. Through the study of classical, jazz, tap, modern, and contemporary dance techniques, the teachers focus on developing body awareness, coordination, and an appreciation of dance. Students learn that dance can be a meaningful, enriching part of their lives.

HEALTH

The Lower School health program empowers Nightingale’s youngest students to take good care of their minds, bodies, and relationships. Our Lower School health classes introduce

students to multiple dimensions of health; physical, social, and mental/emotional. Students develop health knowledge while learning and practicing the skills necessary to manage their personal health as they move through childhood. Through picture books, thoughtful discussions, games, and hands-on activities, students build confidence to keep themselves healthy and safe in and out of the blue doors.

COMMUNITY CLASS

In our Community class, students in Classes K–II begin their journey of developing a greater understanding of and appreciation for differences. They discover and learn how these differences create a mosaic of human experiences, which are central elements in a fulfilling and enriching learning environment, and in preparing the foundation for a successful life. Through various inquiry-based, individual and small group projects, they are guided and encouraged to see themselves as active and productive participants in creating a better world for themselves and their respective communities.

PHYSICAL EDUCATION

The physical education program fosters the enjoyment of movement and the development of self-confidence; it emphasizes a variety of motor and sports-related skills, as well as health-related fitness. Students are introduced to bouldering and functional movements that promote body awareness, opportunities for growth through risk taking, and problem-solving skills. In addition, physical education classes provide opportunities for growth in socialization, sportsmanship, and cooperative play. Once per eight-day schedule cycle, Class IV has a longer period that allows us to teach swimming at the 92nd Street Y. The physical emphasis in Classes K–II is on teaching fundamental motor, manipulative, and sport skills. As the students gain greater proficiency in Classes III and IV, they incorporate more complex, specialized skills and simple strategies into modified competitive games. Additionally, teachers track students’ progress from year to year using video and number assessments to ensure they are prepared for Middle School PE and Athletics by the completion of Lower School.

LIBRARY

The Lower School library seeks to ignite imagination and a sense of wonder, laying the foundation for a lifelong love of reading and research. In the library, students are encouraged to explore and be inspired while cultivating critical information literacy skills. Students experience stories through print books, ebooks, poetry, creative play, art, and song. The Lower School library program is designed to develop the individual reading interests of each student, support the curriculum, and teach research and information

practices. The library is open to students throughout the day. Students visit the library individually and in small groups to choose books suited to their reading levels and interests. Kindergarten, Class I, and Class II students come to the library each cycle for class. Class III and IV students visit the library on a flexible schedule based on research and reading group needs. Through a wide range of resources, the library connects students with stories and information representative of the diversity of the Nightingale community, New York City, and beyond. Interwoven with the Lower School curriculum and in collaboration with classroom teachers, the library designs and supports research projects using an inquiry-based model. In each successive year, the library curriculum builds upon previous learning to prepare students with the information literacy skills they will need as they move into Middle School.

VISUAL EDUCATION

The program in visual education incorporates works of art into the teaching of subject areas such as English, social studies, geography, math, modern languages, technology, and art. Students learn to observe and analyze visual images and discuss them with reference to formal qualities as well as historical and cultural context. Through studying these images, students develop the ability to express and support their interpretations while learning to value the ideas of others. Students combine visits to local museums and cultural institutions with classroom work in the form of discussions, writing, and art-making activities.

COMMUNITY ENGAGEMENT

Community service has been a cornerstone of a Nightingale education since the school's founding over 100 years ago. In the Lower School, the students participate in group projects, which have the goal of instilling a love of giving to others and improving the community. Service is closely tied to the curriculum. The Lower School has had a long partnership with the All Souls Friday Lunch where students help to organize food drives supported by the entire school. Class IV students visit the Carter Burden Center to share poetry and Spanish with the elders in their community center. Other Lower School projects have included designing, creating, and utilizing tools to clean up trash in Central Park and participating in the Upper School "Pillows for Paws" program, crafting enrichment items for animals in NYC shelters.

HOBBYHORSE

Hobbyhorse is Nightingale's extended day after school program. Twelve to fifteen courses are offered at an additional fee each trimester. Classes may include:

Chess	Knitting	Robotics
Coding	Lacrosse	Roller Skating
Cooking	Make + Wonder Art	Sewing
DramaZone:	Outdoor Sports	Sketching and Drawing
Musical Theater	Painting	The Craft Studio
Ice Skating	Photography	Video
Jump Rope	Recycled Art	Yoga

LOWER SCHOOL

By the Class

KINDERGARTEN

ENGLISH AND READING

Reading readiness is taught in small groups. Students participate in oral language, listening, and writing activities intended to help them build the skills needed to become developing readers and writers. Various activities are designed to reinforce efficient and automatic sound/symbol correspondence that will eventually lead to accurate phonetic analysis. The students keep a journal throughout the year to encourage their creativity and independent thought. Handwriting is taught, using PAF motor patterns, emphasizing correct letter formation and sound symbol relationships. Regular story time exposes students to a rich program of literature.

MATHEMATICS

With an emphasis on process and strategy, the Kindergarten mathematics program is designed to foster logical thinking and problem-solving skills, to establish number sense, and to instill the idea that there are many ways to solve a problem. Students study patterns, attributes, addition and subtraction, and use a variety of manipulatives to reinforce their understanding of numeration. Students develop an understanding of addition and subtraction facts to 10 and learn to count to 100 by 1s, 2s, 5s and 10s. Students create a calendar each month, reinforcing temporal concepts of past, present, and future; numeral formation; and sequence, especially with respect to the days of the week and months of the year. Tangrams, pattern blocks, and block building develop spatial awareness and elementary geometric concepts.

SOCIAL STUDIES AND GEOGRAPHY

The focus of the curriculum is on building an awareness of the students' immediate environments, including identity, family, community, school, and traditions relating to different cultures. It is broken down into three seasons. In the fall, the focus is on identity and family, including an in-depth study on skin color. In the winter, students learn about the holidays of light with an emphasis on identifying the similarities and differences seen across cultures. Finally, in the spring, celebratory months of Black History (February), Women's History (March), and APIDA/Jewish History (May) are explored. Topics vary from year to year according to student interests. Museum trips and visits to other New York City points of interest broaden the scope of classroom activities. This past year, the Kindergarteners engaged in the first capstone project with a focus on recyclable materials and the environment. Many events throughout the year, including two visits from the Materials Classroom, a trip to the Museum of Art and Design, and a plant sale emphasized the importance of engaging with reusable materials to improve global warming and benefit our environment.

SCIENCE

Students study scientific skills, climate studies, simple machines, and botany. The laboratory program focuses on observations, experiments, demonstrations, and recording. The students work on many hands-on activities as individuals and in small groups to develop organized and analytical thinking as well as problem-solving skills.

SPANISH

The Kindergarten Spanish program is designed to develop students' language skills in the context of authentic

situations which encourage active participation, personal interactions and multiple opportunities for oral expression. The year-long country of focus is Mexico and language skills are presented through a thematic based exploration of the various traditions, celebrations and notable citizens which represent this vibrant country. Curricular collaborations with teachers of other subjects allow concepts to be presented and practiced in a familiar context and provide enhanced opportunities for language exposure. By the end of Kindergarten Spanish, students will be able to express basic needs and ask questions using familiar phrases, greet others using a selection of short phrases, describe personal preferences and identify objects using a variety of adjectives. Instilling a love of learning world languages in students and a lifelong curiosity about other cultures are foundational elements of the Lower School Spanish program.

VISUAL ARTS

Students work with a variety of materials including paints, watercolors, crayons, collage, clay, and yarn. Creativity, imagination, and exploration of media are encouraged. The extensive classroom art program, wherein students are introduced to such crafts as sewing, stamp- and print-making, and mixed-media pictures, is enhanced and supported by work in the art studio.

MUSIC

In Kindergarten, music class centers on developing the essential musical skills of matching pitch and keeping a steady beat. Singing, movement, instrument playing, and dramatic play are incorporated into every class. As with learning any language, students become fluent musicians through exposure to a wide and plentiful variety of music.

The students hone careful listening skills, using terminology related to ‘musical opposites’ to differentiate sounds that are fast/slow, high/low, long/short, speaking/singing, etc.

DANCE

Students explore a variety of activities aimed at introducing young children to the world of dance. Through warm-up exercises and technical practice, students learn the fundamentals of ballet, jazz, and tap. This course emphasizes creative movement and self expression.

HEALTH

Social and emotional well-being is fostered throughout students’ days in the Schoolhouse. In Kindergarten, students become acquainted with the nurses’ office, basic hygiene including preventing the spread of germs, and trusted adults who can be resources within the school community. Students are encouraged to try new foods at lunch, and the importance of a colorful plate is emphasized.

CLASS I

ENGLISH AND READING

The reading program in Class I fosters a confident attitude towards reading and a pleasure of books. Reading skills are taught through phonics instruction, dictation, and sight vocabulary. The program emphasizes oral reading and comprehension skills, focusing on fluency and expression. Listening skills, handwriting, vocabulary, creative expression, journal writing, and spelling are integral parts of the program. Students use and are exposed to graphic organizers and editing marks to assist them in the writing process. Utilizing elements of *The Writing Revolution*, students learn to expand short declarative sentences by providing details and answers to question words (who, what, when, where, and why). Students share their work with their peers throughout the year.

MATHEMATICS

Students continue to hone their recall of addition and subtraction facts to 10 while developing strategies to build fluency of facts to 20. Using strategies that emerge from the use of number racks, ten frames, number bonds, and number lines, students become proficient in their understanding of mathematical operations and their functions. As they add and subtract two-digit quantities, their efficient use of strategies deepens their understanding of numbers to 120. In addition, place-value concepts are investigated through the use of sticks and bundles, dimes, nickels, and pennies, and other manipulatives. A variety of tools and models are used to explore two- and three-dimensional shapes and fractions (halves, thirds, and fourths). Introducing telling time to the hour and half-hour and determining elapsed time.

SOCIAL STUDIES AND GEOGRAPHY

Class I studies and explores the different types of communities within and outside of the Schoolhouse. They begin the year with a study of the classroom community. Students discuss what it means to be a good classroom citizen as they make connections and learn to respect their similarities and differences. Students then study the fundamental needs of all humanity: food, clothing, and shelter. Class I learns how the environment and culture influence how people meet these basic needs. The students participate in both independent and cooperative group projects. Guest speakers and field trips supplement the curriculum, including a visit from two costume designers and a field trip to experience the Urasenke Tea Ceremony.

SCIENCE

Students investigate the rock cycle, states of matter, and entomology. They will begin recording their observations using more in-depth methods—such as illustrating, diagramming, tables, and graphs. Emphasis is placed on hands-on activities and learning how to utilize scientific terminology when articulating their observations.

SPANISH

The Class I Spanish program is designed to develop students’ language skills in the context of authentic situations which encourage active participation, personal interactions and multiple opportunities for oral expression. The Class I Spanish curriculum is integrated, as it aligns closely with the Class I social studies curriculum allowing for language concepts to be acquired in a meaningful context. The year-long country of focus is Spain and language skills are presented through a thematic based exploration of the various traditions, celebrations and notable citizens which represent this vibrant country. Curricular collaborations with teachers of other subjects allow concepts to be presented and practiced in a familiar context and provide enhanced opportunities for language exposure. By the end of Class I Spanish, students will be able to express basic needs and ask questions using familiar phrases, interview and greet others using a variety of complete sentences, describe daily facts and weather observations independently, express personal preferences, and identify objects using a variety of adjectives in both oral and written form. Instilling a love of learning world languages in students and a lifelong curiosity about other cultures are foundational elements of the Lower School Spanish program.

VISUAL ARTS

Students create art in a setting that promotes inventiveness and sharing. Projects are designed to teach basic art concepts and to introduce a variety of media and techniques. Students explore painting, printmaking, collage, and mixed-media sculpture. Observational skills are stressed, and subjects are drawn from the students’ own imagination and life experiences.

MUSIC

Class I musicians explore a range of pitched and unpitched percussion instruments from around the world, drawing connections based on instrument material and technique. They develop ensemble skills by singing rounds, and playing instrumental ensembles in multiple parts. In the fall, Class I students learn to read and compose with rhythms containing

quarter notes, eighth notes, and quarter rests. In the spring, they learn the beginnings of staff notation through reading and simple three-note melodies and playing them on the xylophone.

DANCE

Students study the basics of tap dance, with a particular focus on rhythm, coordination, and musicality. In addition to developing technique and vocabulary, students gain flexibility, balance, and coordination. To encourage expression and creativity, students explore improvisation by developing their own rhythms and steps within a structured framework.

HEALTH

Class I health focuses on the mind and body. Mindfulness is introduced and practiced throughout the semester. Students learn about the brain and body, naming body parts and understanding their basic functions while identifying best practices in hygiene, self-care and safety. Students take part in food and nutrition education, learning about food groups and eating a colorful plate. Students explore body diversity and appreciation, learn to communicate body boundaries, and identify and practice strategies for caring for their bodies in a variety of circumstances.

CLASS II

ENGLISH AND READING

The goal in Class II is to increase and expand reading fluency with an emphasis on non-fiction, poetry, and novels. Daily dictations help build a basic sense of sentence structure and provide practice in spelling rules and phonics. Vocabulary is studied in context. Creative and expository writing experiences encourage students to write freely and to further develop as readers and writers. Through *The Writing Revolution* exercises and activities, students learn to use graphic organizers to write more complex sentences and basic paragraphs. There are many opportunities for students to share their achievements with others.

MATHEMATICS

Number racks, open number lines, and base ten area pieces (hundreds, tens, and ones) further the development and mastery of addition and subtraction concepts. Addition and subtraction fact fluency to 20 is emphasized. Students also develop strategies for solving word problems. Place-value materials are used to model numbers to 1,000. Flexible and efficient strategies for problem solving are derived from student- and teacher-created models as problems increase in sophistication and numeric complexity. Careful attention is given to solidifying number sense and developing a conceptual understanding of multi-digit addition and subtraction. A variety of manipulatives further an understanding of geometry and fraction concepts. Metric and customary measurement are explored through student-centered projects and activities. Routine opportunities to play games reinforce many of the skills and strategies of the math program.

SOCIAL STUDIES AND GEOGRAPHY

Class II studies the geography and people of New York City, focusing on how the city has changed over time. The students start with basic map reading skills, learning to locate the five boroughs, major waterways, and city landmarks. They also learn about the city's beginnings in Mannahatta and New Amsterdam. Through a study of immigrant life in the early 1900s, students come to understand how New York City's population has grown and changed. The continuing transformation of the built environment is explored through study of subways, skyscrapers, and bridges. The curriculum is brought to life with field trips, hands-on projects, books, photos, and online media.

SCIENCE

Students explore magnetism, electricity, and hydrology concepts. Students will refine observation techniques as they continue to develop an understanding of the scientific process through hands-on experiments. Students will begin formulating deeper questions and hypotheses from data gathered—either from previous experiments or past experiences.

SPANISH

The Class II Spanish program is designed to develop students' language skills in the context of authentic situations which encourage active participation, personal interactions and multiple opportunities for oral expression. The Class II Spanish curriculum is integrated, as it aligns closely with the Class II social studies curriculum allowing for language concepts to be acquired in a meaningful context. The year-long region of focus is the Caribbean and language skills are presented through a thematic based exploration of the various traditions, celebrations, and notable citizens which represent this vibrant part of the world. Curricular collaborations with teachers of other subjects allow concepts to be presented and practiced in a familiar context and provide enhanced opportunities for language exposure. By the end of Class II Spanish, students will be able to express basic needs and ask questions using familiar phrases, use connecting words to extend ideas into longer sentences, describe daily facts and weather observations independently, express personal opinions and preferences, and identify objects using a variety of adjectives in both oral and written form. Instilling a love of learning world languages in students and a lifelong curiosity about other cultures are foundational elements of the Lower School Spanish program.

VISUAL ARTS

Students are encouraged to express themselves by developing an understanding of art concepts and materials. Thoughtful use of color and composition are emphasized while students build three dimensional objects with moving parts using a variety of tools. Students work individually and in groups, drawing inspiration from direct observation and imaginative invention. Project themes are developed from a child's life experiences and imagination.

MUSIC

Class II students expand their musical experiences through instrumental and vocal ensembles. Students continue to explore unpitched percussion, playing in three-part drum ensembles and begin their unit of samba music. Class II

students develop their melodic awareness through the immersion of games, songs, reading, and writing activities based on the five note pentatonic scale, while using solfège syllables and Curwen hand signs; they also learn how to read and identify half notes. Musical independence is developed through part-singing and playing increasingly complex arrangements for voice and Orff instruments (xylophones, glockenspiels, etc.).

DANCE

Students focus on beginning classical ballet technique, repertory, history, and culture through guided exercises, pantomimes, improvisations, and viewings. Students practice elementary ballet French language skills. Yearly repertory includes, but is not limited to, the Pyotr Ilyich Tchaikovsky/Marius Petipa/Lev Ivanov collaborations: *Nutcracker* (1892), *Swan Lake* (1895), and *Sleeping Beauty* (1890).

HEALTH

Class II health focuses on physical, social, and mental/emotional health. Mindful thinking and behavior are reviewed and practiced throughout the semester. Class II students work on decision-making skills and identifying trusted adults, and practice these skills with real-life health scenarios. Topics addressed include adopting a range of healthy behaviors, using medicine safely, human development, and family diversity.

CLASS III

ENGLISH AND READING

In Class III, students focus on strengthening their oral reading and deepening their comprehension skills while continuing to develop their love of literature. They learn strategies to encode and decode multisyllabic words by recognizing rules and patterns. Using the novels read in class, students practice reading habits such as summarization, identifying explicit and implicit ideas, and

tracking character changes across the novel. Students also learn nonfiction reading skills, such as identifying the main idea and note-taking. These skills are interdisciplinarily applied to research in both reading and social studies classes. The focus in English class is the solidification of basic grammatical skills in the context of longer, multi-paragraph written pieces. The students engage in the multiple steps of the writing process, which include planning, drafting, revising, editing, and publishing. They develop their skills by writing compositions in a variety of genres, including personal narrative, nonfiction, opinion, poetry, and correspondence.

MATHEMATICS

The Class III math program continues to solidify the basic operations of addition and subtraction while extending students' understanding of place value, multi-digit addition and subtraction, and problem solving. The standard algorithms for adding and subtracting multi-digit numbers are introduced after demonstrating mastery of these concepts. Students develop mastery of multiplication and division facts and related problem-solving strategies. Models—including equal groups, arrays, the number line, and ratio tables—complement contexts as students explore the relationship between multiplication and division. Measurement of time, mass, and volume is followed by the study of fractions and geometry.

SOCIAL STUDIES AND GEOGRAPHY

Through lessons and activities across the curriculum, Class III students learn to effectively, empathetically, and critically look at current events and history through multiple lenses, understanding the rights and responsibilities of people in a democratic society—whether it be the classroom or the world. Some of the themes of our study include geography, the study of culture, the United Nations and the rights of the child, conservation and design thinking, and global citizenship.

SCIENCE

Students focus on the growth, development and needs of plants and animals, the physics of forces involved in

motion and the technological design of vehicles, the interconnectivity of natural ecosystems, and the power of conducting genuine research in the field. The methodology behind field study and the skills needed to conduct research in the field is heavily emphasized this year. Students regularly leave the Schoolhouse and head into Central Park to make real world observations and conduct meaningful field experiments. Much of Class III science involves asking questions and developing ways to seek out the answers. Throughout the year, students are asked to use their observation and recording skills, develop and analyze data, use appropriate tools, create models, and apply scientific understanding.

SPANISH

The Class III Spanish program is designed to develop students' language skills in the context of authentic situations which encourage active participation, personal interactions, and multiple opportunities for oral expression. The Class III Spanish curriculum aligns closely with the social studies curriculum allowing for language concepts to be acquired in a meaningful context. The year-long region of focus is South America and language skills are presented through a thematic based exploration of the various traditions, celebrations, and notable citizens which represent this vibrant part of the world. Curricular collaborations with teachers of other subjects allow concepts to be presented and practiced in a familiar context and provide enhanced opportunities for language exposure. By the end of Class III Spanish, students will be able to express a multitude of needs and ask various questions using familiar phrases, use connecting words to extend ideas into longer sentences and paragraphs, describe elements of personal identity utilizing verbs and descriptive language, express personal opinions and preferences, and identify objects using a variety of adjectives in both oral and written form.

VISUAL ARTS

The studio curriculum builds upon techniques and concepts introduced in previous grades while providing a wide spectrum of unique expression. Projects become multi-

faceted and use inventive combinations of art materials; three-dimensional objects are planned and built using a variety of sculptural materials and tools. Proportion, composition, and color theory are emphasized in the execution of these projects.

MUSIC

In Class III music, students study the fully expanded pentatonic scale, exploring major and minor modal qualities, and demonstrate their knowledge of these concepts through singing, movement exploration, playing barred instruments with multiple parts. Class III students continue their studies of playing in a multi-part percussion ensemble, learn how to identify sixteenth notes, sing and play in triple meter, and learn how to play basic samba rhythms in an ensemble.

DANCE

Students study the life and repertory of Isadora Duncan, one of the founders of American Modern Dance. Students practice exercises from her class material and learn dances from the early 20th century. There is a special focus on Duncan's masterwork *The Many Faces of Love* (1910-1912). In addition to learning choreography, students improvise and create their own dance phrases in response to Duncan's.

DRAMA

A trimester course in Class III introduces students to drama skills. The primary purpose is to foster personality growth and facilitate learning to explore drama as an art form and use it as an approach to learning in other areas. In class, students use creative drama techniques to bring stories and characters to life. Students learn to work together by writing their own short plays, using storyboards, and presenting them at the end of the course.

HEALTH

Class III health builds upon decision-making skills practiced in Class II. Students identify and analyze influences on decisions, including the role of peers, role models, and advertisements, building media literacy skills along the way.

With a focus on physical, social, and mental health, students learn about topics including sleep, nutrition, puberty, and personal hygiene.

CLASS IV

ENGLISH AND READING

Class IV follows an ELA model for learning with the goal of fostering a love of reading and writing, helping students to see these two disciplines as intrinsically intertwined and preparing them for Middle School. Expository and creative writing assignments, including poetry, are a regular part of the ELA program. Students learn to write and edit different kinds of paragraphs incorporating topic and concluding sentences. Students explore various types of figurative language to enhance their writing. They also continue their study of the writing process in which they learn how to collect ideas, plan, draft, revise, and edit a final draft. Classes across ELA use various novels to address the concepts of plot, setting, character development, figurative and symbolic language, and theme. The students build fluency along with comprehension skills. Students are pushed to develop their own claims about the novels, reinforced by textual evidence, leading to healthy debates and conversations around a text. Students in Class IV are also encouraged to build an independent reading practice through the use of nightly reading assignments. ELA classes address the explicit instruction of vocabulary, spelling, and grammar. Within our integrated ELA programming, students make use of the rich cultural offerings of New York City. Trips to the Metropolitan Museum, the Cooper Hewitt and Museum of the City of New York help bring our reading and writing to life in a variety of ways.

MATHEMATICS

Reasoning skills continue to develop as multi-digit multiplication and division situations are presented. Mastery of multiplication and division segues into the study

of fraction and decimal equivalence and, subsequently, the addition and subtraction of fractions and decimals. Investigations provide real-life contexts through which students begin to generate strategies for problem solving. Exposure to a variety of tools—including geoboards, number lines, and base ten pieces—assist students as they model, compare, compose, and decompose fractions and decimals. A formal introduction of angles, lines, and reflective symmetry comprise the geometry content of the math program. A variety of resources provide instances for students to describe and represent patterns and functions, prove relations, and solve for unknowns.

SOCIAL STUDIES AND GEOGRAPHY

Class IV social studies explores United States history and geography with an emphasis on social justice movements and the power of individuals to affect positive change. In addition, students study the 50 states and their capitals. Students use the Super 3 research process (Plan, Do, Review) to execute an exploration of US states. The students then explore the history of social justice movements in the United States. Emphasis is placed on the Civil Rights movement, but other movements studied include Women's Rights and Suffrage, LGBTQIA+ Rights, Workers' Rights among others. After exposure to a range of changemakers and social justice movements, the students identify influential individuals they are interested in researching. They utilize the library collection and digital resources to gather information about their chosen individual and the movement that they were a part of. Students practice note-taking skills and write an outline to craft a research paper. In addition, the students work with mentor teachers from across the school to create unique projects about their changemaker. Students may create dances, songs, picture books, or a myriad of other options. It's a wonderful way to end their Lower School experience. This research project is scaffolded to build independence and critical research skills, ending with a multimodal final project that requires students to analyze, evaluate, and create content using information gathered from print and online sources. The interdisciplinary approach includes trips, projects, novels, and discussions of current events.

SCIENCE

Students study the interactions between the Earth, the Sun, and the Moon and how these interactions affect life on Earth, and how motion energy can move and change in a collision, and how animals use their senses to communicate. Class IV students are regularly asked to answer scientific questions by making claims that they can support with evidence in the form of scientific data and observations. Students have the opportunity to create and carry out scientific investigations, and develop explanations about the world based on evidence discovered from their own work. Developing scientific understanding can be messy. It is in the sorting out of these messes that students take control and work towards finding greater meaning in the universe.

SPANISH

The Class IV Spanish program is designed to build upon the learning established in previous years of study, as well as prepare students to use their language skills to engage in real world experiences and develop meaningful relationships. While students explore various features of Chile, they learn poetry and write poems emphasizing the style of Chilean poet Pablo Neruda. Students have the opportunity to present their poems formally, as well as apply their language learning in a real context when visiting a local Senior Center. Additionally, Class IV students connect with Spanish speaking students from a Lower School located in Santiago, Chile. Multiple opportunities for speaking, reading, writing and presenting are offered to deepen their overall language development. Emphasis is placed on oral expression, while introductory grammar concepts are established to prepare students for continued study of the mechanics of language. Instilling a love of learning world languages in students and a lifelong interest in other cultures are both foundational elements of the Lower School Spanish program.

VISUAL ARTS

Students develop skills and art vocabulary learned in previous grades. They directly observe art through the study of reproductions and museum visits. Students combine shapes to construct different sculptural objects; this activity reinforces their knowledge of three-dimensional form. They draw and paint to explore compositional and spatial relationships. Students review simple color theory, practice mixing colors, and explore a variety of brushstrokes and painting techniques.

MUSIC

In this capstone year, the music literacy curriculum that was started in Kindergarten reaches a meaningful endpoint in the study of the half-steps and whole-steps of the major diatonic scale. Students spend the year composing melodies and performing complex instrumental arrangements using all the pitches of the scale. As experienced Spanish speakers, they learn to play salsa, samba and cumbia rhythms and sing in both Spanish and English. Class IV students additionally receive a formal introduction to the three “tracks” offered to Middle School musicians—music composition, strings (violin/viola/cello), and guitar.

DANCE

Students develop their modern dance practice with a focus on the life and work of Martha Graham. Students explore guided exercises, improvisations, viewings, readings, and discussion. Special attention is paid to collaboration, movement quality, musicality, gesture, and expressiveness. Yearly repertory includes *Graham's Lamentation* (1910), *Appalachian Spring* (1944), and *Maple Leaf Rag* (1990).

HEALTH

Class IV health focuses on multiple aspects of health; physical, social, and mental/emotional. Topics include healthy communication in peer relationships, food and

nutrition, identifying, managing, and communicating emotions in healthy ways, and nicotine/tobacco use prevention. Students learn about puberty and reproduction with plenty of time devoted to understanding periods and self-care during menstruation, maintaining a positive body image during puberty, and navigating friendships changes and challenges. Students take a personal safety course during which they develop skills to establish and communicate body boundaries and access support from trusted adults.



Middle School

2024-2025 CURRICULUM GUIDE

MIDDLE SCHOOL

Overview

The Middle School program, Classes V–VIII, addresses the specific needs of early adolescents and is a transitional period between the child-centered approach of the Lower School and the college preparatory, curriculum-based emphasis of the Upper School. The Middle School at Nightingale is divided into two unique divisions: the Lower Middle School and the Upper Middle School. These two divisions allow for programming, curricula, and assemblies that meet the developmental needs of each group of students. Students are helped to grow and develop academically, as well as morally, emotionally, and socially. It is our goal to encourage each student to sample many kinds of activities, to learn where real strengths and interests lie, and especially to grow in competence, confidence, and initiative.

The Middle School provides a strong academic program in which study skills, strategies, and leadership competencies complement the content to be mastered. Small, structured classes encourage a lively exchange of ideas and the exhilaration of being part of an exciting academic enterprise. The curriculum focuses as much on how to learn as on subject mastery. During these years, it is important for students to consolidate their skills; therefore, students are taught how to listen, follow directions, organize materials, keep track of homework assignments, manage their time, take notes, develop individualized study skills, defend an argument, communicate through writing and speech, and produce independent research projects. Students use a broad range of technological resources to support their learning and creativity in the classroom.

During a period called Enrichment, daily “labs” are available for students who need or want extra help with their work or who wish to explore a particular academic subject in greater depth. In addition to encouraging students to ask for help, this period allows students to find balance through offering study halls and the opportunity to enjoy supervised time on the rooftop playground and in the gymnasium, library, study halls, art and music rooms, and maker space.

Central to the Middle School, the advisory program ensures that every student in the division is known and supported. Students meet at least twice per schedule cycle with their advisor or dean in either a small group or one-on-one setting. As the primary liaisons between the student and teachers, the advisor and dean, in conjunction with the Middle School administration and student’s family, support and advocate for each student, facilitating the total development of her intellectual and social-emotional growth within a supportive community. The advisory program fosters a culture of open communication through informal discussions about relevant school-specific and current events topics, as well as through a more formal social-emotional curriculum. Through the curricular component of the advisory program, each student learns how to advocate for herself and others, deepen her awareness of herself and others, understand the power of words, and acquire language necessary to support social and racial justice and maintain an inclusive community.

Academics are complemented by a rich array of offerings in art, drama, and music, with a focus on creativity and self-expression. The athletics program, which includes physical education and competitive team sports, promotes physical fitness, skill development, teamwork, and going beyond barriers. Student-led clubs and faculty-run challenge courses are an outlet for individual interests and talents. Trips complement and augment the curriculum through offering immersive learning and leadership opportunities that amplify the student voice.

ENGLISH

Fostering a love of reading and building confidence in writing are key goals of the English program. Students read and discuss canonical and contemporary literature in a range of genres: novels, short stories, memoirs, essays, plays, and poems. They learn to read closely and to substantiate their analysis with details from the text. Literature is situated in its historical context and compared to other art forms. In addition to discussing literature, class time is devoted to writing instruction, with an emphasis on clear sentences, vivid expression, and the logical development of ideas. Students write about a range of topics in a variety of modes, and creative writing is an integral part of the program.

HISTORY

The Middle School history program builds upon the factual and conceptual foundations developed in the Lower School. The development of key skills is an ongoing priority; these include note-taking, creating and defending an argument, paragraph and essay writing, listening deeply and speaking confidently, and the research process. Geography is an integral part of the study of the political, social, and economic history of a specific region. This interdisciplinary program includes art, literature, and films, in addition to collaboration with the art, English, and modern language departments, among others.

MATHEMATICS

The mathematics program in Classes V–VIII focuses on solidifying fundamental arithmetic skills and applying them to problem solving, leading to the formal study of algebra. Students become confident in their ability to think and express themselves clearly in the language of mathematics.

SCIENCE

Middle School science courses stress the development of laboratory skills, problem-solving, and an understanding and application of the scientific method.

CLASSICS

All students in Classes VI–VIII study Latin, the foundation of all Romance languages. By the end of Class VIII, students will have acquired a large amount of vocabulary and will have gained a firm grounding in the basic morphological and syntactical structures in preparation for reading authentic Latin texts in Class IX. In addition, there are separate entry-tracks in both Class VII and Class VIII for students new to Nightingale without prior knowledge of Latin.

MODERN LANGUAGES

Whether in French, Spanish, or Chinese, students in Classes V–VIII develop a foundation in the modern language of their choice over their years in the Middle School. Conducted primarily in the target language, language classes rapidly introduce a broad range of grammar and vocabulary, while emphasizing communicative and intercultural skills. Students in French and Spanish progress through multiple verb tenses each year, while students in Chinese learn how to read and write several hundred new characters in each level. Beginning classes are offered for students coming into the Middle School without a prior foreign language background, while those students who are coming from Nightingale’s Lower School Spanish program, as well as those who have studied French or Chinese previously, are placed in appropriate classes for their level.

SKILLS

The Learning Resources Department appreciates the diversity of learning styles in Middle School and is dedicated to meeting each child’s learning needs. Beginning in Class V, learning specialists teach all students how to meet the expectations of an increasingly demanding curriculum. Throughout the Middle School experience, they support the students’ academic growth—both in small groups and individually—as they mature into proficient self-advocates who are resilient, meta-cognitive, and strategic learners. As needed, learning specialists work closely with students, deans, and classroom teachers as well as parents and outside services.

COMPUTER SCIENCE

The Middle School computer science curriculum cultivates computational thinking, problem-solving skills, and digital literacy. Students build their programming, robotics, design, and foundational technology skills. The program integrates hands-on projects that explore physical computing and game design, encouraging creativity and technical proficiency. By the end of Middle School, students are well-prepared for advanced computer science studies, equipped with a solid understanding of programming concepts and how they can be responsible digital citizens.

HEALTH EDUCATION

Middle School health education supports students as they navigate early adolescence. Students focus on learning about and caring for their physical, mental, and social wellbeing. Developing healthy communication and decision-making skills are at the forefront of the classroom experience to best support students through the middle school years and ultimately prepare for high school. In addition to health education in the classroom, students in Classes VI and VIII take a personal safety course during which they practice verbal and physical self-defense skills.

VISUAL ARTS

The Middle School offers a wide variety of art courses, including 2D and 3D Art, Photography, Ceramics, Painting, Digital Imaging, Printmaking, and “Art Beyond the Museum, Everywhere and for Everyone.” In Class V, the school year is divided into quarters as students rotate through four different art courses. In Classes VI, VII, and VIII, students rotate through two different semester-long art courses. In each course students learn new technical processes while working with a wide range of materials. Their assignments are designed to increase observational skills, encourage innovative thinking, recognize intuition, and develop a sense of what is visually thought-provoking. In addition to the art-making process, students study works of art in the classroom and at various nearby museums, including the Metropolitan Museum of Art, the Guggenheim Museum, and the Jewish Museum.

PERFORMING ARTS

Nightingale recognizes the value of exploring personal creativity through artistic expression. Through Dance, Drama, and Music, students learn the power of using their whole self—body, mind, and spirit—to represent the human experience. In doing so, our artists make connections with each other, their learning in other classes, and with the greater world.

PERFORMING ARTS | DRAMA

The drama classes in Middle School foster personality growth and facilitate learning. Students explore drama as an art form and use it as an approach to learning in other areas. Drama class provides a safe environment for students to engage their imagination in a theatrical environment. Students learn the meaning of working together in a group and the love of performing with others. It enables them to see the world from different perspectives. By performing plays it helps students to understand people, places, periods of history, and issues that might be unfamiliar to them. Being in a show is more than just memorizing lines—it helps students to identify and amplify what’s important in a story and to connect with others around them.

PERFORMING ARTS | MUSIC

Middle School students personalize their study of music by choosing to follow an academic music “track.” Through this system, each student can specialize in a musical instrument or skill while continuing to study the core curriculum and music literacy concepts that are essential to a robust and well-rounded music education. The three tracks available to Middle School musicians are music composition, guitar, and strings, which are discussed in greater detail below. Because the curriculum is designed with a four-year approach, students continue in their designated track throughout Middle School. When special circumstances arise, students may consult with the music department head about transferring tracks.

MUSIC COMPOSITION

Composition students deepen their music composition, criticism, and theory skills by analyzing a wide array of music and creating their own. Students collaborate on a variety of original compositions throughout the year, with a particular focus on opera (Class V), popular song (Class VI), film music (Class VII), and musical theater (Class VIII). The Middle School experience culminates in a workshop production of the original Class VIII musical that features students from music composition, dance, strings, and theatre in a performing arts capstone project.

GUITAR

Guitar students learn a flexible guitar technique that will prepare them to explore the many worlds of guitar music, from rock and pop to classical and jazz. They study basic chords, strumming and picking patterns, simple melodies, and reading guitar tablature. After acquiring the technical fundamentals, guitar students have the opportunity to choose much of the music studied in class and to play some of their favorite songs.

STRINGS

String students learn the fundamental techniques of playing violin, viola, or cello in a small group setting. They develop technical facility on their chosen instrument while playing a variety of engaging repertoire and experimenting with improvisation. String students learn the fundamentals of ensemble playing and have frequent opportunities to write and perform original instrumental compositions.

Private individual instruction in voice, guitar, piano, violin, viola, and cello is available for an additional charge.

PERFORMING ARTS | DANCE

Dance for Classes VI-VIII offers a comprehensive study of choreographic composition alongside an exploration of various dance styles and techniques, aimed at enhancing creativity, critical thinking, and technical skill development. In Class VI, students begin by focusing on the foundational elements of choreography—space, time, dynamics, and relationships—through movement explorations, improvisation, and composition exercises. As they progress through Classes VII-VIII, students delve into a wide range of dance styles, including ballet, jazz, modern, contemporary, musical theatre and hip hop, refining their ability to make artistic choices and enhance their technical, performative, and interpretive skills. With an emphasis on collaboration and personal reflection, these courses encourage students to expand their movement vocabulary, gain a deeper understanding of the historical and cultural contexts of various dance styles, and apply these skills to their Capstone projects, ultimately fostering growth in both technique and artistic development.

PHYSICAL EDUCATION AND ATHLETICS

All Middle School athletic teams provide students at Nightingale the opportunity to compete, learn skills, grow, and have fun. All teams in Classes V-VIII have a no-cut policy, allowing students experience playing on a team for their school. Team sport choices mirror our Upper School athletic program and include soccer, volleyball, and cross country in the fall; basketball, winter track, and swimming in the winter; and lacrosse, softball, and track and field in the spring.

MIDDLE SCHOOL

By the Class

CLASS V

ENGLISH

Journeys

Class V students study literature, build their writing skills, and practice oral expression. To support these goals, vocabulary-building, spelling, and grammar are expressly taught. In an interdisciplinary approach to boost learning, the English curriculum is coordinated with the history curriculum and centered on the theme of journeys. Students read novels by Jacqueline Woodson, Gloria Whelan, Jason Reynolds, Linda Sue Park, Zilpha Keatley Snyder, and Mariko Nagai—texts that are situated in their historical contexts. In the spring, students read a variety of poems and prepare for a class-wide poetry recitation.

HISTORY

Ancient Civilizations

What is ancient history? How can we know what happened in the ancient past, and why do we want to know? What is civilization? What factors determine where and how early civilizations developed? And what elements of early civilization can we observe around us today? Class V history students will address these questions and others, as they investigate early humans and multiple ancient civilizations, including Mesopotamia, Egypt, and China; ending the year in ancient Greece. They will study prehistoric hunter-gatherers; the Agricultural Revolution; and early river valley civilizations.

What tools and skills do historians use to reconstruct the ancient past? How do we read and write about history?

Class V historians will learn to interpret maps and globes, and to identify and apply the major themes of geography (location, place, region, movement and human-environment interaction). As historians, students will use primary- and secondary sources to compose a meaningful narrative of our ancient past; to ask complex questions about that past; and to identify and describe past-present connections. Even as they collaborate to construct coherent narratives of the past (and to locate their own identities in time and place), Class V history students are invited to challenge existing dominant narratives, particularly where the voices of those at the intersection of race and gender have been historically marginalized.

Students will develop the skills of thinking and writing historically through close reading of nonfiction text, scrutinizing primary sources and examining artifacts. As a specialized skill-set, writing historically requires that students learn to take organized notes, to paraphrase and summarize effectively, and to apply new vocabulary accurately. From there, students will develop arguments within structured paragraphs and short essays. They will have multiple opportunities to practice this genre of writing throughout the year.

MATHEMATICS

Students begin the year by applying their knowledge of whole number arithmetic to new concepts including order of operations and evaluating exponential expressions. They are introduced to number theory, including divisibility rules, factors, and multiples. An exploration of fractions leads to addition and subtraction of fractions, mixed numbers, and decimals. Students learn multiplication and division of fractions through context-based explorations. A deep study

of ratios and proportions leads students to a conceptual understanding of percent. Students are introduced to operations with integers and the coordinate plane. They investigate unit conversions and two-dimensional geometric concepts, including angle relationships. A focus on estimation and mental math as a means to improve number sense is reinforced throughout the year.

SCIENCE

The Science of Me

In this course, students learn about themselves as organisms made of matter and energy by studying the body as a system with parts that work together. Emphasis is placed on the development and application of the scientific skills of inquiry, observation, measurement, and recording data. Students apply their knowledge and build skills through the practice of formal laboratory procedures and the use of various laboratory equipment. The goal of this course is to lay the groundwork for students' future study of interdisciplinary science in Class VI.

MODERN LANGUAGES | FRENCH/SPANISH

French and Spanish courses are taught almost exclusively in the target language. Students learn to spell and ask for and follow directions from the teacher in the language of instruction. The goal for each student is a high degree of active proficiency in the areas of speaking, writing, listening, and reading. This is acquired over several years of sustained study. Culture, art, and history are contextualized in the lessons so that students acquire not only the more practical notions of language but also a broader understanding of the usefulness of French and Spanish in a global society. Students learn the intricacies of number, gender, and case, and learn to describe people and things, discuss their school subjects and daily lives,

and locate French and Spanish-speaking countries on a map. Students also develop their ability to express courtesies, count and tell time, talk about food, identify objects related to the home, and use basic verb paradigms to express actions.

MODERN LANGUAGES | MANDARIN CHINESE

The early years of Mandarin study concentrate on the fundamentals of reading, writing, and speaking. Students learn to read and write several hundred of the most commonly written Chinese characters. As with any beginning language course, the focus is on practical skills and vocabulary relevant to the daily lives of students. This course requires a considerable amount of memorization, especially given the use of characters in writing.

SKILLS

All Class V students take a year-long course that emphasizes specific tools and strategies to help them develop executive functioning skills, as well as an understanding of how to learn and study with success.

COMPUTER SCIENCE

Students begin by developing the basic set of technology skills necessary to be successful in Middle School. Emphasis is also placed on digital citizenship, with lessons on online communication and building a positive digital footprint. Throughout the course, students learn about programming using block based coding applications, examine the basics of engineering and robotics, and develop image and video editing skills.

HEALTH EDUCATION

Class V students participate in a semester-long health course that establishes the foundation for health and wellness education in Middle School. With a focus on decision-making, communication, and self-care, students explore identity, relationships, and issues facing pre-adolescents. A safe and inclusive classroom environment is established where students prepare to navigate the transition from childhood to early adolescence.

LIBRARY

Class V students take a year-long introductory library class in addition to a cyclic DEAR reading block in the library. Students learn how to access and effectively use library resources for research and personal-use, participate in a multi-month “Mock Newbery” book club, and also receive ample opportunity to explore the library’s rich collections.

VISUAL ARTS

Ceramics, Photography, 2D Art

In ceramics, students focus on hand-building techniques. As they gain technical skills, they will also explore aspects of the creative process, including idea development, problem solving, and self-expression. In the photography course, students acquire skills in the darkroom and learn the rudiments of this art through experimentation with pinhole cameras, photosensitive materials such as film and paper, and compositions with light. In the 2D art course, students explore the fundamentals of painting and drawing. Students will learn about perspective drawing by creating a 2-point perspective cityscape and will approach painting with inspiration from surrealism.

Explorations in Printmaking

In this course, students will learn a range of printmaking methods and techniques for creating visual work through these methods. The course explores the mixing of print media and how they interact with other media. Students will focus on collage, drawing, painting, and bookmaking while exploring their personal styles through the wide range of assigned projects.

PERFORMING ARTS | DRAMA

Students in Class V take a trimester of drama and start to learn to work together as a group by performing a small play for their parents and the Middle School.

PERFORMING ARTS | MUSIC

In addition to following the strings, guitar, or music composition tracks, all students in Class V sing in a grade-wide chorus, where they will continue to hone singing

and sight-reading skills in a dynamic choral setting that encourages vocal health, develops breath control, and builds ensemble skills. The Class V chorus performs in winter and spring concerts, as well as special assemblies and events throughout the school year.

PERFORMING ARTS | DANCE

Students study elements of contemporary dance, including jazz, modern, and ballet. Special attention is given to improvisation. Students create short dance studies that are shared in class.

PHYSICAL EDUCATION AND ATHLETICS

Class V and VI students follow either a PE track or an athletic track to fulfill their physical education requirement. In the PE track, students are introduced to a variety of activities, including cooperative games, traditional team and individual sports, outdoor education, yoga, and resistance training. Students learn about components of fitness, cardiovascular endurance, muscular strength and endurance, and flexibility as a means to both educate and motivate the students to become active both inside and outside of the school.

Class V/VI Athletics is all about developing skills, learning what it means to be a student-athlete, and developing a love for athletics and team culture. Our V/VI teams develop skills in a fun and competitive environment, while learning how to compete with other schools in our league. Teams participate in up to four “Jamborees” per season, which are round-robin style competitions. During these Jamborees, students not only learn how to put their skills to the test in a competitive setting, but learn how to be great teammates- supporting their fellow Nighthawks on the sidelines as well as within gameplay.

CLASS VI

ENGLISH

Heroes

How does storytelling unite us? How do reading and writing engage us as citizens of the world? What does it mean to be a hero? These essential questions are explored as students read a range of fiction and nonfiction, including Sutcliff's *Black Ships Before Troy* (connected to their study of the classical world in Latin and history), Serrailier's adaptation of *Beowulf*, Alvarez's *Before We Were Free*, Channi's *Pashmina*, and Helget's *The End of the Wild*. These principal texts are supplemented by essays and poetry. A final unit focuses on the art and craft of storytelling. Grammar instruction is incorporated into analytical and creative writing assignments.

HISTORY

World Cultures and Geography

Through the lens of human and physical geography, and expanding upon their prior knowledge of ancient history, Class VI history students will build critical thinking competencies as they study imperial development in Medieval Africa, Europe and Asia. Students will interrogate the concept of empire, and the centrality of religion and trade in the spread of empire across multiple world regions from about 500 CE to 1500 CE.

Students will apply the themes and tools of geography with increasing expertise. And as they advance their geo-literacy skills, Class VI history students will recognize and document the ways in which geography and culture shape each other over time. Some of the topics to be studied include: Ancient Rome and the rise and spread of Christianity; the Silk Road; Islamic Empire and Medieval Europe; Kingdoms of West Africa; and Feudal Japan. Students will trace the origins and propagation of world religions, and examine the religious diaspora that emerged over time.

Thinking historically and writing historically are competencies that reflect skillful use of primary sources

to gather, interpret, corroborate, evaluate and synthesize information. Class VI history students will engage in the practices of close reading, research proficiency, strategic note-taking and building specialized vocabulary. Students will interact with a wide variety of sources (text, artifacts, multimedia, trips, projects, etc), representing diverse perspectives. They will gain analytical writing experience by composing essays of increasing length and sophistication, and will produce independent projects that reflect complex historical knowledge.

As historians, Class VI students are emboldened to challenge existing dominant narratives, and to consistently seek out and center historically marginalized voices. They are expected to formulate meaningful questions, to identify and appreciate contradictions; and to confront the complexities of our shared human past, all within a given geographic and historical context.

MATHEMATICS

Students solidify the skills of arithmetic and integer operations and prepare for the more abstract thinking required by subsequent courses. Teachers combine the traditional presentation of pre-algebra concepts and principles with innovative class activities, problem solving techniques, and online technological support. Students explore solving one-step and two-step equations and inequalities and how to graphically represent the solutions. They review decimals, fractions, and rational number theory, and interact with irrational numbers and square roots for the first time. Students use this in work with ratios, proportions, and percent. Measurement, the Pythagorean Theorem, and two- and three dimensional geometry, including surface area and volume, help students develop their spatial reasoning and awareness. Students also practice graphical representation of data and investigate fundamentals of probability.

**Advanced topics may include in-depth exploration of writing and solving multi-step equations and inequalities and practical applications of algebraic and percentage concepts.*

SCIENCE

Nightingale and Bamford: Special Agents Unit (SAU)

The Class VI curriculum builds on the skills and concepts of The Science of Me course in Class V. Students explore topics across all disciplines of science through the lens of forensic investigation, including fingerprint and hair analyses and examination of chemical and genetic evidence. Each unit strengthens scientific skills by providing opportunities for systematic observations, the use of tools (such as the microscope), evidence collection, evidence analysis, and the communication of conclusions. The goals of this course are to encourage students to take risks in their learning and to embrace uncertainty. After all, not all cases are closed!

CLASSICS

After a brief introduction to the history and development of the Latin language, Latin pronunciation, and some basic vocabulary and useful expressions, the class begins to use the textbook series *Ecce Romani* as the foundation of their Latin study. Through the reading method, the series introduces the workings of a highly-structured, inflected language, with increasing emphasis on vocabulary building and the study of derivatives in English and the Romance languages. The class also addresses cultural topics such as slavery and Roman dress, and explores the mythical beginnings of Rome from the Trojan Wars to its founding.

MODERN LANGUAGES| FRENCH/SPANISH

With the continued emphasis on oral and written communication, MS Intermediate students acquire more regular and irregular verbs and use them to narrate in the present, near future, recent past, preterit, and simple future tenses. Direct and indirect object pronouns are introduced in order to allow the student to acquire language that imitates normal usage by native speakers. More in-depth thematic vocabulary is introduced as it relates to travel, sports, clothing, personal hygiene, health, leisure activities, and finance. Students also discuss the differences between American schools and those in foreign countries in which French and Spanish are spoken.

MODERN LANGUAGES | MANDARIN CHINESE

The early years of Mandarin study concentrate on the fundamentals of reading, writing, and speaking. Students learn to read and write several hundred of the most commonly written Chinese characters. As with any beginning language course, the focus is on practical skills and vocabulary relevant to the daily lives of students. This course requires a considerable amount of memorization, especially given the use of characters in writing.

SKILLS

In small groups that meet four times per eight-day schedule cycle, students with a Latin exemption learn study skills strategies that promote organization, time management, reading comprehension, note-taking, writing, memorization, and test preparation. Students learn how to apply these skills to their homework, in-class writing assignments, and tests, and special attention is given to the personal needs of each student. Opportunities for individualized instruction allow for reinforcement of content material and setting of academic goals. The objective is to teach strategies that promote self-awareness, self-advocacy, and successful learning. Skills classes are taught by the learning specialists, who also serve as coordinators and liaisons with teachers, parents, and outside support services.

COMPUTER SCIENCE

Students continue developing their programming skills using block-coding platforms and microcontrollers. Students learn about circuitry and its relationship to physical computing. Students also explore elements of game design and program interactive games. Digital citizenship instruction includes a focus on digital footprint, and social media.

HEALTH EDUCATION

Building on the skills introduced in the Class V curriculum, students in Class VI will delve further into issues of early adolescence. Decision-making, communication, and media literacy skills will be practiced. Topics addressed include human development, nutrition, relationships, social media

use, and substance use prevention. Students take a personal safety course where they focus on establishing body boundaries, street safety, and handling challenges in peer relationships.

VISUAL ARTS

Design Principles and Techniques in 2D and 3D, Photography

In this course, students will apply the principles and elements of design in both two and three-dimensional materials. Line, color, shape, value, texture, form, and space will be explored in drawing, painting, and sculpture. New techniques and materials will be introduced throughout the semester. In photography, students will begin using 35mm film cameras, working in black and white. Concentrating on framing and composition, they will learn to process their own film and master basic printing techniques.

PERFORMING ARTS | DRAMA

Students in Class VI take a semester of drama in which they begin to work on different scenes, plays, and dive deeper into character study. A full scale musical is presented in the fall in collaboration with boys from Allen-Stevenson

PERFORMING ARTS | MUSIC

In addition to following the music composition, guitar, or strings tracks, students in Classes VI–VIII may choose to participate in one of three optional performing ensembles, which will allow them to develop their performing and ensemble skills in specialized mixed-grade groups. All ensembles meet once a cycle in a dedicated academic period and again during one of the two Middle School clubs periods. Listed below are the performing ensembles available to students in Classes VI–VIII:

MS Chorus

MS Drumming Ensemble

MS String Ensemble

PERFORMING ARTS | DANCE

Students deep dive into the world of jazz dance and its many forms. Students engage in an aerobic warm up and

across-the-floor work and learn essential jazz phrases and combinations. In addition, students begin to focus on the foundational elements of choreography—space, time, dynamics, and relationships—through movement explorations, improvisation, and composition exercises.

PHYSICAL EDUCATION AND ATHLETICS

Class V and VI students follow either a PE track or an athletic track to fulfill their physical education requirement. In the PE track, students are introduced to a variety of activities, including cooperative games, traditional team and individual sports, outdoor education, yoga, and resistance training. Students learn about components of fitness, cardiovascular endurance, muscular strength and endurance, and flexibility as a means to both educate and motivate the students to become active both inside and outside of the school.

CLASS VII

ENGLISH

Coming of Age

A key theme of the year is coming of age, an experience as varied as the individuals who live in the United States. Students read classics such as Hinton's *The Outsiders*, Cisneros's *The House on Mango Street*, and Orwell's *Animal Farm* alongside contemporary texts such as Reynolds' *Look Both Ways*. Instruction in writing, grammar, and vocabulary is taught in conjunction with assigned readings. The drama of Shakespeare is introduced in a two-step process: students read and study *A Midsummer Night's Dream* and then work with a professional actor in a two-week workshop to present scenes from the play.

HISTORY

Democracy, Civics, and Advocacy: U.S. History and Government to 1800

Class VII History focuses on the development of democratic institutions within the context of settler colonialism and the beginning of the United States Republic in the 17th and 18th

centuries in North America. Building on the themes of Class VI, students will consider the role of geography in human-environment interactions among indigenous groups and the motives for migration, both voluntary and forced, to North America from the “Old World.” While acknowledging the limitations of democracy as it emerged in US history, we will also focus on the ideals articulated in the founding documents, such as the Declaration of Independence, the Constitution, and the Bill of Rights, examining these within the historical context in which they were created and also as statements of principles that continue to deeply impact our lives. Throughout the course, students will reflect on the meaning of civic participation and the mechanisms for change within our system, and will engage with concepts of inclusion, exclusion, power, and agency in history. They will refine their close-reading skills, including extensive primary source analysis and source corroboration, and will begin to develop historians’ tools for constructing and assessing interpretations of the past. Analytical writing, research, note-taking, and public-speaking skills are also emphasized throughout the year.

MATHEMATICS

In this pre-algebra class, students transition to a more abstract approach to mathematics. An essential component to Math VII is the application of all pre-algebra skills to real-life problems. Students solidify their skills in solving multi-step equations and inequalities. They delve into a formal discussion of properties of exponents and an in-depth investigation of ratios, proportions, and percent. Algebraic manipulation and graphical representation of linear functions reinforces the shift into abstract thinking. To reinforce the application of the Pythagorean Theorem, students work with radicals and irrational numbers. Students explore three-dimensional geometry, and a crucial component to this year’s study is the derivation, application, and analysis of formulas for composite figures. A more detailed investigation of probability and statistics closes out the year.

**Advanced topics may include negative exponents, operations with radicals, distance and midpoint formula, special right triangles, and an introduction into rational expressions.*

SCIENCE

Sustainable World

In Class VII science, through project-based learning and experimental design, students will turn their focus outward to explore the environment around them. They will develop skills that will allow them to build and live in a sustainable community. These scientific skills which are needed to tackle real-world problems will be taught through collaborative work and experiential learning. Students will have the opportunity to analyze authentic data and in the process will explore the interaction between earth’s hydrosphere, atmosphere, and geosphere with a focus on the three lenses of sustainability.

CLASSICS

The course begins with a review of the previous year’s work and subsequently introduces the complete active verbal system and all noun and adjective declensions. Important elements of Roman culture and daily life, such as Roman administration and aqueducts, are also addressed, while historical material covered ranges from the period of the Roman kings up to the time of the Punic Wars.

MODERN LANGUAGES | FRENCH/SPANISH

Students at this level learn to distinguish between the use of the imperfect versus the preterit, as well as the present perfect tense. Through translation exercises and compositions, students learn that there are many ways to express ideas from one language to the next. As with previous coursework, they are required to use verbal and written exchanges to solicit personal information, give and follow directions, and use command forms with a high degree of accuracy. The thematic vocabulary studied covers personal correspondence, organizing festivities, media, using the telephone, and style and design. More in-depth readings on a variety of topics from celebrities, science, and art are included.

MODERN LANGUAGES | MANDARIN CHINESE

In Class VII Chinese, students review the vocabulary and syntax covered in earlier years of study while increasing their repertoire of Chinese characters. Authentic texts

are incorporated in the instruction to allow students to contextualize their use of specific thematic vocabulary. This course is primarily for students in Class VII. It may be repeated for a second year if a student requires more time to consolidate her familiarity with the material.

SKILLS

In small groups that meet four times per eight-day schedule cycle, students with a Latin exemption learn study skills strategies that promote organization, time management, reading comprehension, note-taking, writing, memorization, and test preparation. Students learn how to apply these skills to their homework, in-class writing assignments, and tests, and special attention is given to the personal needs of each student. Opportunities for individualized instruction allow for reinforcement of content material and setting of academic goals. The objective is to teach strategies that promote self-awareness, self-advocacy, and successful learning. Skills classes are taught by the learning specialists, who also serve as coordinators and liaisons with teachers, parents, and outside support services.

COMPUTER SCIENCE

Students continue building their programming skills through an introduction to text-based coding and robotics. Students conduct an in-depth study of 3D design, exploring the design thinking process as they learn how to use 3D modeling applications. Digital citizenship instruction focuses on social media, data mining, and cyberbullying.

HEALTH EDUCATION

Class VII students participate in a semester-long health course where they focus on skills including decision-making, healthy stress management, media literacy, and values clarification. Students practice these skills through real-life health scenarios to feel prepared for handling challenges of early adolescence. Topics addressed in Class VII health include healthy communication, gender and sexuality, sleep hygiene, and substance use prevention.

LIBRARY

Class VII students take a library course called “Information Literacy.” The goal of the course is to empower students with the tools and strategies they need to be savvy producers and consumers of information. In this course students learn how to cite their sources, how to critically evaluate images and videos in the news and on the internet, how to identify mis- and disinformation, how to distinguish credible sources from unreliable ones, and how to evaluate unfamiliar websites. The learning objectives are to nurture curiosity, foster skepticism, and hone source evaluation skills.

VISUAL ARTS

Ceramics, “Art Beyond the Museum, Everywhere and for Everyone”

In Ceramics, students focus on ceramic processes, methods, and materials. They have the opportunity to continue to build upon both hand-building skills and techniques, as well as utilizing the potter’s wheel to create their work. “Art Beyond the Museum, Everywhere and for Everyone” is a global survey of mark making from Paleolithic cave paintings to the present day. Students will be encouraged to hone their observational and critical thinking skills through classroom discussions and in-person and virtual trips to area museums and local landmarks.

Drawing and Mixed Media

Students in this course will learn the technical skills to bring realism to their artwork. Working from a grid to create an enlargement and using charcoal to render value, students will gain confidence in their ability to render the world around them. For our final project we will focus on identity and creating a visual narrative on the canvas using mixed-media. Students will have the opportunity to display their work and engage in classroom critiques.

PERFORMING ARTS | DRAMA

Class VII students may choose to perform in a dramatic production presented each spring with the boys from the Allen-Stevenson School. As an introduction to the Upper School, Class VII and VIII students may participate in our Upper School spring musical.

PERFORMING ARTS | MUSIC

In addition to following the music composition, guitar, or strings tracks, students in Classes VI–VIII may choose to participate in one of three optional performing ensembles, which will allow them to develop their performing and ensemble skills in specialized mixed-grade groups. All ensembles meet once a cycle in a dedicated academic period and again during one of the two Middle School clubs periods. Listed below are the performing ensembles available to students in Classes VI–VIII:

MS Chorus

MS Drumming Ensemble

MS String Ensemble

PERFORMING ARTS | DANCE

Dance Track

All Class VII and VIII students follow either a dance or PE track to fulfill their physical education requirement. The dance track is for students who are interested in studying dance technique at a more advanced level and going beyond the fundamentals of composition to explore their own choreography. Dance students collaborate throughout the year to create their own class and group dances, and have at least two opportunities to perform for their peers. All students in the dance track are members of the Middle School Dance Collective.

PHYSICAL EDUCATION AND ATHLETICS

All Class VII and VIII students follow either a dance, PE, or athletic track to fulfill their physical education requirement. The PE track focuses on promoting physical literacy through varied activities. Team sports and games promote skill development, teamwork, and strategic analysis, while providing opportunities for leadership and creativity. Students participate in a variety of cooperative games and traditional sports. Other fitness activities may include yoga, High Intensity Interval Training, Zumba, and bouldering. Students also learn how to interpret and use fitness assessment data to set goals and develop lifelong fitness plans. Through this multifaceted program, students gain knowledge, skills, and confidence to become and remain physically active for a lifetime.

In Class VII/VIII athletics, students use the skills they develop at the V/VI level and learn how to strategize towards winning as a team. When numbers allow, we form “A” and “B” teams to allow students to compete at their appropriate level. Class VII/VIII teams have a full competition schedule against schools in and out of our league, and learn and embrace their unique roles on their teams to ultimately contribute to team success. Our VII/VIII Athletics program prepares students to compete at the Varsity level.

CLASS VIII

ENGLISH

Identity

Class VIII considers the individual enmeshed in a web of familial, cultural, and political systems. Students read Acevedo’s novel-in-verse, *The Poet X*; two memoirs, Wolff’s *This Boy’s Life* and Noah’s *Born a Crime*; and Satrapi’s graphic novel *Persepolis*. They write about these narratives in analytical and creative assignments designed to develop an engaging voice in well-crafted sentences. In a creative non-fiction unit, they read essays as models for their own essay writing. In the spring, they read Miller’s *The Crucible* and Shakespeare’s *Macbeth*. An acting workshop taught by a professional actor prepares students to perform scenes from *Macbeth*.

HISTORY

How are America’s Founding Ideals Revealed in Historical Memory and Human Rights?

Class VIII American History is centered around two essential questions: To what extent has the United States fulfilled its promise of liberty, justice, and equality for all? What does it mean to memorialize, and what function do memorials serve for us as a nation? Anchored by the text assigned for summer reading, *Just Mercy: A True Story of the Fight for Justice (Adapted for Young Adults)* by Bryan Stevenson, our course begins with an examination of contemporary concepts of race, racism, and anti-racism in America, with particular attention to systems like voting rights/ voter suppression and mass incarceration.

Through the application of historical thinking and writing skills (sourcing, corroborating, contextualizing), students work with evidence to formulate an account of the Reconstruction Era, which many scholars astutely refer to as America's "Second Founding." Our studies then take us chronologically and thematically through the Gilded Age and Progressive Era; Native American displacement and resistance; immigration; and industrialization and its repercussions. Students consider the extent to which New Deal policies and programs were truly inclusive. They apply research processes and critical thinking to study of the Holocaust and Japanese internment as they survey WWII, and proceed to the modern Civil Rights Movement (including lessons on the Black Power and Black Arts Movements). The Class VIII trip to Alabama takes students to Montgomery, Birmingham, and Selma, where they interact with historic Civil Rights landmarks, discover women's central role in the movement, and use archives to do the work of historians. We explore two powerful new additions to the landscape: the National Memorial for Peace and Justice and the affiliated Legacy Museum. Upon our return, students consider what factors determine an effective rights movement, by analyzing campaigns inspired by the Civil Rights Movement: women's rights, disability rights, gay and transgender rights, native rights and farmworkers' rights. Finally, the course culminates in a major project in which students create structured (competitive) proposals for original memorials dedicated to self-selected, under-recognized individuals and organizations. This capstone merges scholarly research, analytical writing, creative design and presentation elements, and brings together the entire Middle School to appreciate the exemplary proposals.

MATHEMATICS

Algebra I

In this formal study of algebra, students explore solving and graphing linear and absolute value equations and inequalities, including systems of linear equations and inequalities. Students are introduced to function notation and begin to conceptualize functions' properties on the coordinate plane. An extensive study of quadratic expressions, equations, and graphs is essential to the year's

study. Throughout the course, students learn to use these skills to solve real-world problems. Students devote time and attention to building their proficiency in factoring polynomials. They develop their abstract understanding of extraneous and non-real solutions through a deep study of rational and radical expressions and equations.

**Advanced topics may include solving exponential equations, completing the square, and right triangle trigonometry.*

Accelerated Algebra

Students embark on an advanced, formal study of algebra. Students delve quickly into the study of functions. They explore the graphs and solutions of functions of various types, especially quadratic, exponential, rational, and radical. An in-depth study of function transformations, combinations, and compositions provides Accelerated Algebra I students a unique challenge in Class VIII. Operations with polynomials and systems of quadratic and linear equations are also essential to the year's study. Students begin to explore the abstract connection between right triangle and unit circle trigonometry. Throughout the course, students use these skills to solve real-world problems, learn to create mathematical models using regression software, and develop coding skills using TeXShop. Additional topics may include probability, sequences and series, and matrices.

SCIENCE

Sustainable World Part II

This course is a continuation of the study of scientific phenomena through the three lenses of sustainability. Students will further develop analytical thinking, future thinking, and problem-solving skills while investigating real-world problems. With a focus on climate change, energy resources, and our planet's oceans, students will analyze scientific data to imagine possible solutions while opening their minds to diverse opinions and ideas. Throughout this course, students will refine their laboratory, mathematical, collaboration, and communication skills.

CLASSICS

The course begins with a review of the previous year's work and subsequently covers more advanced grammatical concepts, such as the passive voice, infinitives, participles, and the subjunctive mood. Important elements of Roman culture and daily life, such as Roman education and cuisine, are studied along with a historical survey of the era from the late Republic to the Age of Augustus.

MODERN LANGUAGES | FRENCH/SPANISH

This course begins with a thorough review of all previous material, as repetition and practice are necessary at this stage in second language acquisition. Statements with "if" clauses, relative pronouns, and the subjunctive are introduced and occupy a significant amount of instructional time in the second semester. Thematic vocabulary covered includes national lifestyles, national holidays, specific items related to national history, French and Spanish colonies, agriculture, and professions.

MODERN LANGUAGES | MANDARIN CHINESE

This course begins with a review of vocabulary and grammatical structures from earlier years of study. Students then move on to new themes to deepen their communicative and reading skills. New topics include giving directions, national holidays, vacation, classical stories, China's geography and demographics, manners, and etiquette. As students advance in their oral language capabilities, they broaden their ability to describe their academic and home lives, as well as make comparisons to their peers in China. During the second half of this one-year course, the focus turns to more advanced grammar and conjunctions, enabling students to produce increasingly sophisticated written work. Ultimately, students are expected to be capable of writing short narratives, stories, and dialogues of 300 words or more.

SKILLS

In small groups that meet four times per eight-day schedule cycle, students with a Latin exemption learn study skills strategies that promote organization, time

management, reading comprehension, note-taking, writing, memorization, and test preparation. Students learn how to apply these skills to their homework, in-class writing assignments, and tests, and special attention is given to the personal needs of each student. Opportunities for individualized instruction allow for reinforcement of content material and setting of academic goals. The objective is to teach strategies that promote self-awareness, self-advocacy, and successful learning. Skills classes are taught by the learning specialists, who also serve as coordinators and liaisons with teachers, parents, and outside support services.

COMPUTER SCIENCE

Introduction to Programming

Over the course of the year, students are introduced to universal programming concepts and strategies. Students explore the Python coding language, p5js, and physical computing throughout the year. At all stages in the course, students engage in debugging and computational exercises designed to prepare them for more advanced programming experiences.

HEALTH EDUCATION

Students in Class VIII take part in a semester-long health course. Students look at relevant health topics through the lens of decision-making, communication, and building/maintaining healthy relationships. Students will explore adolescent health issues in preparation for their Upper School years with the goal of taking increased responsibility for personal health and begin to individually define what health is at this stage in their lives. Students take a personal safety course that focuses on setting boundaries in early dating/romantic relationships, threat assessment and street safety, and practicing verbal and physical self-defense skills.

VISUAL ARTS

Introduction to Video

This entry level course introduces strategies and basic skills for visual and audio production. Students produce several videos varying in length from 30 seconds to three minutes, taking each project from pre-production to editing. Although the primary emphasis is on production, students

will also view and analyze selected videos from various sources, while learning and applying the essential tools of media and news literacy.

Global Collaborations

In Global Collaborations, we will explore what it means to be a global citizen and discuss a broad range of topics including social, political, and environmental issues and how they affect diverse populations. As a group, we will design and construct a collaborative painting project with other classrooms around the world.

PERFORMING ARTS | DRAMA

Class VIII students present a Shakespeare play with boys from the Allen-Stevenson School in the fall. As an introduction to the Upper School, Class VII and VIII students may participate in our Upper School spring musical.

PERFORMING ARTS | MUSIC

In addition to following the music composition, guitar, or strings tracks, students in Classes VI–VIII may choose to participate in one of three optional performing ensembles, which will allow them to develop their performing and ensemble skills in specialized mixed-grade groups. All ensembles meet once a cycle in a dedicated academic period and again during one of the two Middle School clubs periods. Listed below are the performing ensembles available to students in Classes VI–VIII:

MS Chorus

MS Drumming Ensemble

MS String Ensemble

PERFORMING ARTS | DANCE

Dance Track

All Class VII and VIII students follow either a dance or PE track to fulfill their physical education requirement. The dance track is for students who are interested in studying dance technique at a more advanced level and going beyond the fundamentals of composition to explore their own choreography. Dance students collaborate throughout the year to create their own class and group dances, and have at least two opportunities

to perform for their peers. All students in the dance track are members of the Middle School Dance Collective.

PHYSICAL EDUCATION AND ATHLETICS

All Class VII and VIII students follow either a dance, PE, or athletic track to fulfill their physical education requirement. The PE track focuses on promoting physical literacy through varied activities. Team sports and games promote skill development, teamwork, and strategic analysis, while providing opportunities for leadership and creativity. Students participate in a variety of cooperative games and traditional sports. Other fitness activities may include yoga, High Intensity Interval Training, Zumba, and bouldering. Students also learn how to interpret and use fitness assessment data to set goals and develop lifelong fitness plans. Through this multifaceted program, students gain knowledge, skills, and confidence to become and remain physically active for a lifetime.

In Class VII/VIII athletics, students use the skills they develop at the V/VI level and learn how to strategize towards winning as a team. When numbers allow, we form “A” and “B” teams to allow students to compete at their appropriate level. Class VII/VIII teams have a full competition schedule against schools in and out of our league, and learn and embrace their unique roles on their teams to ultimately contribute to team success. Our VII/VIII Athletics program prepares students to compete at the Varsity level.

LIBRARY

The Middle School library program builds on the foundational skills developed in the Lower School. The program’s dual objectives are to develop the skills necessary to navigate an increasingly complex, information-rich world and to foster a love of reading. The program aims to provide students with a strong foundation in information literacy competencies to support them on their academic journeys here at Nightingale and beyond the classroom.

In addition, librarians collaborate with faculty to provide all Middle School students with challenging and rewarding research experiences that teach them how to solve

information queries successfully by developing the skills necessary to define a research question, identify keywords and search terms, and locate and evaluate print and digital resources. The library maintains a strong online presence to support student learning beyond designated class times. Curated research guides, or LibGuides, provide in-school and remote access to the online catalog as well as an extensive range of databases and digital resources.

COMMUNITY ENGAGEMENT

Community engagement in the Middle School seeks to offer opportunities for students to identify and respond to the needs within their communities both near and far. Middle School service projects vary widely, from visiting with adults suffering from Alzheimer's Disease to fundraising for an organization chosen by students. The projects focus on meeting the intellectual and emotional development of our students. Elected representatives to the community engagement board in each grade help to organize projects for their classmates. As in the Lower and Upper Schools, classroom teachers may incorporate service-learning projects into their curriculum.

TRIPS

All classes take an overnight trip to build community within their class, as well as day trips that accentuate what they are learning in the classroom. The Class VII and VIII trips are connected to the history curriculum. Traditionally, full-class trips include:

Class V: A series of trips throughout the year as part of their Journey Curriculum. Their visits to museums up and down Museum Mile (including the Jewish Museum, Cooper Hewitt, and El Museo del Barrio). At each museum students contemplate journeys—physical, emotional, metaphorical, through lessons with our Visual Education Coordinator and staff from the museum.

Class VI: Throughout the year students take part in day trips integrated into the curriculum.

Class VII: Washington, DC (overnight): As part of learning

about the systems of government, in history classes, students visit several important buildings and memorials for an immersive and interactive experience in our nation's capital.

Class VIII: Alabama (overnight): Traveling from Montgomery through Selma to Birmingham, students meet local civil rights activists who share their experiences at locations critical to the movement, culminating in a full day at the National Memorial for Peace and Justice and the Legacy Museum.

EXTRACURRICULAR

The extracurricular program is primarily elective, allowing students to choose activities that interest them and to use their talents to the fullest extent in a variety of experiences. Participation in extracurricular activities allows students to build group spirit and expand their friendships.

Class VI puts on a fall musical with the Allen-Stevenson School; students can choose to perform on stage or work backstage. Class VII students have the opportunity to join with boys at Allen-Stevenson in their spring production. Class VIII students may audition for a Shakespeare play produced by the Allen-Stevenson Drama Department in the fall.

Students in Class VII and Class VIII may participate in the Upper School spring musical.

Other Middle School extracurricular offerings include the following:

- Athletic teams, Classes V–VIII
- *Out of Uniform* (MS literary magazine)
- Student government: Middle School co-presidents and class representatives to the Arts Board, Community Engagement Board, Environmental Board, Inclusivity Board, and Athletic Board (Blue/Silver)
- Community service projects at each grade level
- Debate (tournament team and club)
- Sweet Readers, Class VI
- Performing Ensembles, Classes VI–VIII
- Current Events Club
- Two in-school club periods per cycle; Previous clubs

offerings have included: Knitting Club, Math Club, Gender and Sexuality Alliance (GSA), Greco-Roman Club, Hip Hop Dance Club, Board Games Club, Drama Club, and DIY/Makers Club.

ENRICHMENT

Middle School students have a daily Enrichment period that gives them time to pursue independent projects in art, music, and technology; to seek extra help in their academic subjects; and more.

Offerings include:

- Major Academic Subject Labs
- Open Art (Ceramics, Painting, Photography, Video)
- Open Maker Space
- Roof
- Open Gym
- Quiet and Group Study Labs
- Library

THINKERY

Middle School students have the option to participate in Thinkery on Mondays through Fridays from 3:20 until 6:00 p.m. Thinkery is a place for students to be after school to study, think, connect, and play.

Under the supervision of the Director of Thinkery and Thinkery staff, students attending Thinkery are given the time and space to finish their homework, study, and prepare for assessments and receive academic and organizational support as well as content-specific support from Upper School peer tutors and teachers. In addition to supporting students academically, Thinkery also offers opportunities for students to engage in creative play and enriching activities and to expand their horizons through its monthly lecture series called “Thinkery Lectures”, which have ranged from neuroscience to distance hiking to the science of vaccines to music composition.

Students who participate in Nightingale sports or have other after-school activities may join Thinkery any time before 6:00 p.m.



Upper School

2024-2025 CURRICULUM GUIDE

UPPER SCHOOL

Overview

The Upper School curriculum reflects our belief that a good liberal arts education adapted to the modern world is the best preparation for college and a lifetime of learning. Students establish solid foundations in English, mathematics, history, science, and at least one world language. Our wide selection of offerings enables students to pursue their interests and build on their strengths.

Upper School courses at Nightingale are designated as “majors” or “minors” based upon how often they meet within each eight-day cycle, as follows:

- Majors typically meet four or five times per cycle.
- Minors meet fewer than four times per cycle.

Students are expected to complete twenty major courses during their time in Upper School which typically amounts to five major courses each semester. In addition, certain minor courses are required for graduation (see “Required Minors” on the next page).

Exceptions to these graduation requirements may only be made at the discretion of the Head of Upper School and the Associate Head of School. Please see the Upper School handbook for further information. Students may take five or six majors in Class IX and take five thereafter. Minor courses may not be combined to take the place of a major.

Within this Curriculum Guide, the symbol “**M**” following the course name indicates that a specific course is a minor. All courses without that designation are majors.

Optional minor classes are for students who are interested in pursuing a topic outside of their “regular” course load. Minor classes are assessed pass/fail, and are a way for students to engage in intellectual pursuits without the pressure of grades. Minor classes may require a little homework, but most work should be done during the class itself. These seminar-style classes allow students to gain an introduction to topics that may not be typically offered in our core curriculum. Minor classes typically meet 2x a cycle and cannot be combined to form a major class. In certain cases, a student’s advisor or dean may advise that taking a minor in addition to the regular course load is not in a student’s best interest. In addition, enrollment in a minor will depend on the student’s availability when the class is offered. Minor classes in the past have included: French*, Spanish*, Ancient Greek, History of Indigenous Peoples, Music Composition, and The Sustainable World.

**In the case of modern language minors, a student may choose to take a minor to continue to keep up with a language that they have dropped or a heritage speaker may choose to enroll in a minor class while they choose to pursue another language as a major. For these reasons, language minors are not for beginning language students.*

PLEASE NOTE: All courses listed in the Curriculum Guide will not be offered every year. Please consult the course registration sheet for more information regarding course availability.

Honor Code

The Honor Code is based on two pillars: academic honesty and a commitment to demonstrating respect for others in our school community.

“I will not cheat, steal, or plagiarize. I will treat others with respect and dignity. I understand that I am encouraged to prevent violations of the Honor Code from going unnoticed.”

Students at the Nightingale-Bamford School are expected to show respect for both personal and academic honesty and for one another. Trust is the foundation of a school community. A sense of honor is developed by living in an atmosphere of trust and by assuming the responsibilities that accompany this trust. Each student attending the Nightingale-Bamford School is expected to support the honor system.

Diploma Requirements

English: 4 years | **History:** 3 years, including 1 year of American history
Mathematics: 3 years | **Science:** 3 years, 2 of which must be a laboratory course | **World Languages:** 3 years in one language or 2 years in each of two languages | **Arts:** 1 year (visual and/or performing arts) | **Physical Education:** 4 years | **Health and Wellness:** 3 courses | **Community Engagement:** Individual sustained service both to the school and the broader community required for Classes X–XII

REQUIRED MINORS

Going Beyond Barriers*
Class IX Programming
Class X Arts and Digital Design Sequence**
Independent Study Program

*This three-year sequence includes Class X Leadership, Class XI Public Speaking, and Class XII Senior Financial Literacy Seminar

**Class X students must choose two of the following semester-long courses: Design and Digital Fabrication, Music Appreciation, Introduction to Art History, and Dance History

As of the 2023-2024 school year, any class taken outside of Nightingale, with the exception of courses taken at approved semester or year away programs, will not count towards graduation requirements or prerequisites.

UPPER SCHOOL

By the Class

CLASS IX

ENGLISH

Class IX English

Chimamanda Adichie's TED Talk "The Danger of a Single Story" sets the theme for this required year-long course. In the fall semester, students read, discuss, and write about Jacqueline Woodson's *Red at the Bone*, Ali Smith's *Girl Meets Boy*, and a sampler of sonnets from Shakespeare to the present. In the spring, students read Shakespeare's *Romeo and Juliet*, Gish Jen's *Typical American*, and Moisés Kaufman's *The Laramie Project*. Students borrow Kaufman's investigative technique to craft and present the Verona Project, a collaborative theatrical engagement with *Romeo and Juliet*'s hometown. Skills targeted in Class IX English are attention to detail and prioritizing salient points when reading, marshaling textual evidence to support interpretive analysis, actively listening and participating in both small and whole-group discussions, and making intertextual connections. Writing skills include developing, supporting, and sustaining analytical arguments; writing in a range of imaginative genres, including poetry and creative nonfiction; applying the conventions of Standard English with flexibility and precision; and revising sentences for clarity and concision. These skills contribute to the development of broader competencies such as exploring personal values, engaging in productive civil discourse, and critiquing social and cultural systems.

HISTORY

Global History I

From the fourteenth through the late eighteenth centuries,

the world was transformed by statebuilding, religious and political conflict, trade, innovation, and increased interconnection. In this course, students explore some of these transformations as they occurred in Africa, Asia, Europe, Latin America, and the Islamic world. Selected topics covered include the Indian Ocean trade networks; cultural flourishing and political change in Ming China; the Renaissance, Protestant Reformation and Wars of Religion; the Aztec and Inca Empires; and the Atlantic Revolutions. In addition to textbook excerpts, students read and analyze textual primary sources, as well as art, artifacts and maps. Particular attention is paid to developing students' historical and social thinking, analytical writing, critical reading, discussion, and research skills, with a focus on primary source analysis and fundamentals of structuring an argument. In turn, these skills contribute to the consolidation of broader competencies such as critical systems thinking, inquiry-based learning, verbal and written communication, civil discourse, and strategic action.

MATHEMATICS

Class IX Math Core

In this course, students explore mathematical concepts by emphasizing analysis and application of problem-solving techniques in various intra- and inter-disciplinary situations. They will develop connections between algebraic and geometric principles, using right triangles and circles as the building blocks for investigating geometry, trigonometry, vectors, families of functions, infinity, data modeling, and regression analysis. The course goes beyond traditional boundaries by focusing on the development of mapping techniques and geometric analysis of the cholera epidemic in 19th-century London. Students will analyze and develop functions with visual, algebraic, and numeric representation.

The course emphasizes conceptual understanding of these topics and the ability to draw connections between them, including techniques such as identifying and developing strategies, applying mathematical modeling, and algorithmic and geometric processes. Students develop and demonstrate a willingness to wrestle with more abstract material and understand the necessary depth of thought to master concepts. Mistake-making is celebrated and harnessed as learning opportunities.

SCIENCE

Class IX Science Core

In this course, students explore biology through inquiry-based experiential learning, focusing on larger biological themes. Students work collaboratively to execute and occasionally design experiments, collect and analyze data with their peers, and enhance their problem-solving and communication skills through interactive work. This approach helps students gain a deeper understanding of scientific methodologies. The major themes of this course are the relationship between structure and function, energy transfer, continuity and change, and interdependence in nature. The laboratory component reinforces these concepts and hones critical scientific skills. Additionally, by integrating current events, the course encourages students to apply scientific principles to real-world situations and their everyday lives.

CLASSICS

Latin teaching in the Upper School has two separate tracks: one for students without prior knowledge of Latin and one for students who began their study of Latin in Middle School. Within both tracks, students work on acquiring proficiency in Latin vocabulary and grammar, as well as

study Roman history and civilization, so as to be able to interpret and analyze seminal works of poetry and prose within the social, political, cultural, and literary context in which these works were created.

Elementary Latin

Through the reading method, this course will introduce students to the fundamentals of Latin morphology and syntax, and will build their vocabulary in preparation for reading authentic Latin texts. Emphasis will be placed on the etymological relationships between English or the Romance languages and Latin. Lessons on Roman history and culture will also form an important component of the course.

Intermediate Latin

The course is a continuation of Elementary Latin and will introduce students to more advanced concepts of morphology and syntax. Vocabulary acquisition and retention will be a main objective of the course in order to facilitate the transition from textbook Latin to authentic literary texts, such as Ovid, Seneca, and Pliny the Younger. Discussion of historical and cultural influences within these works are also featured.

Latin 2

This course will begin with a review of basic grammar before the introduction of new advanced morphological and syntactical concepts. Continuous reading will be emphasized in preparation for authentic Latin literature. In the spring term, the class will study selections from poetry (Catullus and Ovid). Discussion of historical and cultural background and analysis of literary figures and meter will supplement the readings.

MODERN LANGUAGES

French 1

This course serves as an introduction to the French language and begins with the most rudimentary aspects of the language. It is intended for students with no prior French experience or who would benefit from a comprehensive review of the basics. Though introductory in nature, the

pace of the course is quick and is intended to prepare students for French 2 the following year. A large amount of vocabulary is presented, and several of the most common tenses are introduced and practiced. This course is open to all students in Classes IX–XII who are beginning their study of French outside of the curriculum sequence that began in Middle School.

French 2

Pre-requisite: French 1 or by placement

In addition to the review and consolidation of the grammatical structures acquired in earlier years of French language study, the future and conditional tenses are studied in depth, along with the subjunctive mood. Short readings about contemporary French culture are used to contextualize grammar and new vocabulary. Students are required to write short compositions, translations, and dictations.

French 3

Pre-requisite: French 2 or by placement

With the expectation that students at this level have mastered fundamentals of grammar and vocabulary, this course rapidly reviews the entirety of French moods and tenses, paying particular attention to common pitfalls that affect even advanced students (such as past-participle agreement or multiple object pronouns). As a common entry point to French in Upper School for Class IX students, this class uses moments from French history to tie into the Class IX trip to London in the fall, as well as elements of French culture (art, gastronomy, etc.) to deepen students' understanding of and connection with the broader context of the Francophone world. By the end of the year, students will demonstrate mastery of increasingly advanced concepts, such as relative pronouns, past infinitives, and present participles.

Spanish 1

This course serves as an intensive introduction to the Spanish language and quickly progresses from basic aspects of the language to more sophisticated forms of

writing and speech. It is intended for students who have no prior experience with Spanish or who would benefit from a comprehensive review of the basics. Though introductory in nature, the pace of the course is quick and is intended to prepare students for Spanish 2 the following year. A large amount of vocabulary is presented and the present, preterit, and imperfect tenses (along with all their irregularities) are introduced and practiced. This course is open to all students in Classes IX–XII who are beginning their study of Spanish outside of the curriculum sequence begun in Middle School.

Spanish 2

Pre-requisite: Spanish 1 or by placement

In addition to the review and consolidation of the grammatical structures acquired in earlier years of Spanish language study, the subjunctive and imperative moods are studied in depth. With the continued emphasis on the acquisition of active skills in writing and speaking, frequent short compositions and translations are required. Students must engage in short historical and cultural readings in which vocabulary and syntactical structures are contextualized.

Spanish 3

Pre-requisite: Spanish 2 or by placement

In this course, students begin more process oriented writing and speaking. The entirety of Spanish moods and tenses is reviewed and students are expected to use relative clauses, higher-order idioms, and a richer variety of vocabulary actively in both composition and oral presentations. Short literary selections in poetry and prose are introduced to contextualize the grammar and to introduce the richness of Hispanic culture and history.

Chinese 1

This introductory course in Mandarin focuses on the fundamentals of reading, writing, and speaking. As with any beginning language course, the focus is on practical skills relevant to the daily lives of students. Students in this course should prepare themselves for a considerable amount of memorization, especially given the use of characters in

writing. This course is open to all students in Classes IX–XII who are beginning their study of Mandarin outside of the curriculum sequence begun in Middle School.

Chinese 2

Pre-requisite: Chinese 1 or by placement

This course is a natural continuation of what was covered in Chinese 1. A significant amount of new vocabulary and characters is added to the curriculum. Authentic readings are incorporated in the instruction to allow students to contextualize their understanding of written and spoken Mandarin. This course may be repeated for a second year if a student requires more time to consolidate her familiarity with the material.

Chinese 3

Pre-requisite: Chinese 2 or by placement

In this course, special attention is given to the mastery of written Mandarin in a variety of social and academic situations. Authentic texts, including contemporary media used in everyday life in China, are incorporated to help students gain practical skills in Mandarin. In conversation, students are taught to speak more colloquially; furthermore, grammar becomes increasingly abstract.

COMPUTER SCIENCE

Interactive Programming

This course is a year-long course that focuses on the mastery of HTML, CSS, and JavaScript. This course is designed for students with a strong interest in programming to dive deeper into the core technologies of the modern web browser and explore more complex web technologies. Some of these technologies include frameworks, libraries, and object-oriented programming, through the learning of classes, objects, and constructors. With an emphasis on hands-on learning, students will be challenged to design and build interactive, dynamic websites with an increased level of functionality that incorporates object-oriented programming and complex data structures. Students will focus on how to visually present information and data to users in unique and creative ways. Students will use

professional programming tools as they work through programming challenges, and learn to build upon those challenges to design more ambitious and unique programs.

Technology, Data, and Storytelling M

This semester-long course empowers students to uncover the powerful narratives that data can convey through the instruction of various technologies and tools. We will begin by introducing students to personal data organization and management, providing a broad overview of ways to understand and navigate personal data storage and the use of essential tools for successful technological integration into academic classes. Students will then learn how to manage, analyze, and present data in engaging ways using various tools, including ArcGIS StoryMaps, Google Sheets, and CODAP. Additionally, they will explore how programming in Python can enhance data analysis, enabling them to automate processes and uncover deeper insights. Through hands-on projects and real-world applications, students will better understand how analyzing data is used to influence decision-making, address societal problems, and drive innovation in today's digital world.

HEALTH AND WELLNESS

Foundations in Health and Wellness M

This course establishes the foundation for health and wellness education in Upper School. Essential health skills including decision-making, communication, and analyzing influences will be introduced to support students as they navigate their early high school experience. Students will begin to identify and clarify personal values affecting physical, mental/ emotional, and social health, while thinking critically about real-life health scenarios for teens. Students take a personal safety course that focuses on healthy relationships, consent, and intimate partner violence. This semester-long course is required for all Class IX students.

CLASS X

ENGLISH

Class X English

Class X's theme of transformation is introduced by Tara Westover's memoir *Educated*. Evolving identities, especially in women's lives, are also explored in Ibsen's *A Doll House*, Fitzgerald's *The Great Gatsby*, and Zora Neale Hurston's *Their Eyes Were Watching God*. The journey from enslavement to freedom is presented in *Narrative of the Life of Frederick Douglass*; the pathway from freedom to dehumanization is charted in Wiesel's *Night*. In a writing workshop, students read a variety of essays—analytical, argumentative, anecdotal—as models for their own writing. The year concludes with a sampler of Romantic poets from William Wordsworth to Alice Oswald, entertaining more than one point of view with nuance and subtlety;

Philosophical Inquiry Into Our World M

Philosophy as an academic discipline can be esoteric, if not alienating, but we're all philosophers at heart. In this minor, we'll try to reignite the spark of wonder and curiosity we all had as children. What are you wondering about most these days, and what do you most want to discuss in community with others? We'll generate the course agenda and questions together, immerse ourselves in sources that deepen our thinking, and work on making meaning (and, just as importantly, becoming more confused) together. We'll generate questions wholly based on your interests, but here are some questions that have come up in the past: What "counts" as valuable work today? Is "leadership" overvalued? How much inequality are we okay with? What's the fate of the high school English essay (or the Great American Novel) in the world of artificial intelligence? What if grades didn't exist? If there are so many reasons to be a good person, why is it so hard?

HISTORY

Global History II

During the 19th and twentieth centuries, technological, social, and political change ushered in a new era in global history, one often summarized by the term “modernity.” But what do we mean by “modern”? How did our contemporary world of technological marvels and remarkable transformation in many aspects of life—but also extreme inequality and, in some regions, persistent violence—come to be? In Global History II, students address these questions through critical reading, writing, and discussion in a seminar-style class. Topics include industrialization and technological change, urbanization, discourses of belonging and exclusion such as racism and nationalism, the expansion of political rights, the new wave of imperialism that reshaped the globe in the late nineteenth century, the emergence of new political ideologies and new forms of violence such as genocide; decolonization, the Cold War, and the resurgence of religion in politics in the late twentieth century. We will discuss, among other things, varied ways imperial powers interacted with those they sought to dominate, major revolutions and wars, the continuing transformation and expansion of a global economy, individualism vs. social obligations, gender roles, and the respective roles of the state, political ideologies, and national identities. Particular attention is paid to developing students’ historical and social thinking, analytical writing, critical reading, discussion, and research skills, with a focus in Class X on short timed essays, historiographical analysis, and student-led discussion. In turn, these skills contribute to the consolidation of broader competencies such as critical systems thinking, inquiry-based learning, verbal and written communication, civil discourse, and strategic action.

MATH

Class IX Math Core

Class X Math Core is the exploration of functions. Using the conceptual understanding of a function, students will develop strategies for analysis of relationships between variables, be introduced to the complex plane, and analyze the connections between quadratic, exponential,

logarithmic, rational, radical and higher degree polynomial functions. Students will be able to analyze and develop functions with visual, algebraic, and numeric representation. Matrices are introduced as a tool for problem solving. Grit and a willingness to wrestle with abstract material will be emphasized in the course, as well as a necessity for depth of understanding to master concepts. Mistake-making will be celebrated and harnessed as learning opportunities.

Statistics in the Era of Big Data

This course introduces students to the major themes of an exploratory analysis of data. Planning and conducting a study, variable distributions, various statistical tools to analyze both quantitative and qualitative data sets, statistical inference, and visual representation of data are major themes of the course. Students examine sampling, surveying, research and experimentation as methods of collecting data. Correlation and Chi-squared Tests are used to explore the power of statistical inference and prediction. Students then use these tools to investigate topics of personal interest throughout the year. Data is used to understand themes and nuances in political polling and the process of redistricting. This year-long course is often about nuance in numbers, an idea less explored in most math courses.

SCIENCE

Class X Science Core

In Class X Science Core, students learn chemistry through differentiated techniques that include flipped classroom instruction, tiered units, formative lab activities, and collaborative experiences. Collecting and evaluating data for trends is central to each unit, as is being able to represent conclusions both visually and symbolically. Topics include atomic structure, matter and energy, and thermodynamics. All material is introduced in a real-world context to better aid the students in making connections between their learning and personal experience.

A Sustainable World

Have you ever wondered just how much of an impact you and your household are having on the world? Do you

struggle with making meaningful, long-lasting changes that are not overly costly or challenging to maintain? In this course, we will examine how sustainability must involve not only the protection and preservation of Earth and its natural resources, but also the health and prosperity of the people living there. This project-based class will allow us to explore a plethora of means by which individuals, communities, and organizations can work to lower their carbon footprint and lessen their negative effects on our natural world while not merely surviving, but actually thriving.

Public Health: Survey

Prerequisite: Biology

This semester-long course begins by introducing students to a brief history of public health starting with its emergence around the turn of the twentieth century, when infectious disease epidemics plagued London and New York City as the world’s emerging population centers. A survey of the major subdisciplines of public health then follows, including methods of epidemiology, fundamental biostatistical analyses, and the spread and control of both communicable and non-communicable diseases. The future of public health is also considered, particularly as climate change continues to affect the global distribution of pathogens and of the humans that serve as their hosts.

Psychology: Biological and Behavioral Approaches

Prerequisite: Biology

In this semester-long class students will gain an introduction to psychology from the biological and behavioral perspectives. They will begin by learning about psychology as a discipline, the different approaches you can take towards it, and experimentation methods. Students will then study basic neurobiology/neuroanatomy followed by a focus on sensation and perception. They will then move to a more behavioral approach, studying learning and memory, motivation and emotion, personality, and social psychology. Students will participate in regular online and classroom discussions on pertinent psychological topics and will develop scientific research and writing skills while exploring psychological topics of their own interest.

Science Seminar **M**

Required for ISRP students

In this year-long course, students develop advanced scientific literacy and communication skills. Students present talks on an area previously researched in a lab or field setting or on a current topic of interest from a scientific lens. Students also hear from outside speakers and attend educational programs at local universities and research institutions. In addition, students are guided and supported through the process of securing a science internship. This class meets twice per eight-day cycle and graded on a pass/fail basis. Students who have been accepted in the Independent Science Research Program must enroll in Science Seminar each academic year they are a part of the program; other students are invited to attend as space permits.

CLASSICS

Intermediate Latin

The course is a continuation of Elementary Latin and will introduce students to more advanced concepts of morphology and syntax. Vocabulary acquisition and retention will be a main objective of the course in order to facilitate the transition from textbook Latin to authentic literary texts, such as Ovid, Seneca, and Pliny the Younger. Discussion of historical and cultural influences within these works are also featured.

Latin 3

This course will provide an overview of Latin literature and will study selections from prose (Caesar, Cicero, Sallust, and Apuleius) and poetry (Ovid). Students will work toward grammatical and lexical mastery and will build their reading skills. A considerable amount of time will be devoted to literary analysis and to grammar review in preparation for the following year's Advanced Latin courses.

MODERN LANGUAGES

French 1

This course serves as an introduction to the French language and begins with the most rudimentary aspects of the language. It is intended for students with no prior French

experience or who would benefit from a comprehensive review of the basics. Though introductory in nature, the pace of the course is quick and is intended to prepare students for French 2 the following year. A large amount of vocabulary is presented, and several of the most common tenses are introduced and practiced. This course is open to all students in Classes IX–XII who are beginning their study of French outside of the curriculum sequence that began in Middle School.

French 2

Pre-requisite: French 1 or by placement

In addition to the review and consolidation of the grammatical structures acquired in earlier years of French language study, the future and conditional tenses are studied in depth, along with the subjunctive mood. Short readings about contemporary French culture are used to contextualize grammar and new vocabulary. Students are required to write short compositions, translations, and dictations.

French 3

Pre-requisite: French 2 or by placement

With the expectation that students at this level have mastered fundamentals of grammar and vocabulary, this course rapidly reviews the entirety of French moods and tenses, paying particular attention to common pitfalls that affect even advanced students (such as past-participle agreement or multiple object pronouns). This class highlights moments from French history, as well as elements of French culture (art, gastronomy, etc.) to deepen students' understanding of and connection with the broader context of the Francophone world. By the end of the year, students will demonstrate mastery of increasingly advanced concepts, such as relative pronouns, past infinitives, and present participles.

Spanish 1

This course serves as an intensive introduction to the Spanish language and quickly progresses from basic aspects of the language to more sophisticated forms of writing and speech. It is intended for students who have no prior experience with Spanish or who would benefit from a

comprehensive review of the basics. Though introductory in nature, the pace of the course is quick and is intended to prepare students for Spanish 2 the following year. A large amount of vocabulary is presented and the present, preterit, and imperfect tenses (along with all their irregularities) are introduced and practiced. This course is open to all students in Classes IX–XII who are beginning their study of Spanish outside of the curriculum sequence begun in Middle School.

Spanish 2

Pre-requisite: Spanish 1 or by placement

In addition to the review and consolidation of the grammatical structures acquired in earlier years of Spanish language study, the subjunctive and imperative moods are studied in depth. With the continued emphasis on the acquisition of active skills in writing and speaking, frequent short compositions and translations are required. Students must engage in short historical and cultural readings in which vocabulary and syntactical structures are contextualized.

Spanish 3

Pre-requisite: Spanish 2 or by placement

In this course, students begin more process oriented writing and speaking. The entirety of Spanish moods and tenses is reviewed and students are expected to use relative clauses, higher-order idioms, and a richer variety of vocabulary actively in both composition and oral presentations. Short literary selections in poetry and prose are introduced to contextualize the grammar and to introduce the richness of Hispanic culture and history.

Chinese 1

This introductory course in Mandarin focuses on the fundamentals of reading, writing, and speaking. As with any beginning language course, the focus is on practical skills relevant to the daily lives of students. Students in this course should prepare themselves for a considerable amount of memorization, especially given the use of characters in writing. This course is open to all students in Classes IX–XII who are beginning their study of Mandarin outside of the curriculum sequence begun in Middle School.

Chinese 2

Pre-requisite: Chinese 1 or by placement

This course is a natural continuation of what was covered in Chinese 1. A significant amount of new vocabulary and characters is added to the curriculum. Authentic readings are incorporated in the instruction to allow students to contextualize their understanding of written and spoken Mandarin. This course may be repeated for a second year if a student requires more time to consolidate her familiarity with the material.

Chinese 3

Pre-requisite: Chinese 2 or by placement

In this course, special attention is given to the mastery of written Mandarin in a variety of social and academic situations. Authentic texts, including contemporary media used in everyday life in China, are incorporated to help students gain practical skills in Mandarin. In conversation, students are taught to speak more colloquially; furthermore, grammar becomes increasingly abstract.

COMPUTER SCIENCE

Design and Digital Fabrication M

This semester-long course is an elected part of Class X's required Arts and Digital Design sequence. In this course, students learn how to apply various tools and technologies to prototype and develop their own innovations and re-imaginings with real-world applications. Students use these skills to develop fluency in current technologies, grow as empathetic creators and collaborators, and become part of the worldwide maker community. The course begins with several weeks dedicated to skill building, moves to collaborative project-based units, and culminates in an independent theme-based project by each student.

HEALTH AND WELLNESS

Adolescent Health M

Adolescent health will meet three times per cycle for a semester and will be offered in both the fall and spring. It is a required course that students must take once as a sophomore or junior. With a focus on adapting safe

and healthy behaviors, this course will address multiple dimensions of health. Students will build skills and gain knowledge that they will apply to real-life health scenarios for adolescents while in the classroom, and gain confidence to apply these skills and knowledge to improve their personal health in their everyday lives. Content areas including mental health, gender and sexuality, nutrition, and substance use and abuse will be covered in depth. Students will be better equipped to access valid health resources, reduce health and safety risks, identify and manage influences on personal health and safety, and use their strengths to enhance well-being.

GOING BEYOND BARRIERS

Leadership M

Using a research-based framework called The Student Leadership Challenge, this required course is organized around the following principles: (1) leadership is an identifiable set of skills and abilities available to everyone, (2) the abstract concept of leadership can convert into easy-to-grasp behaviors that can be learned, and (3) leadership is an ongoing process that benefits from practice. Underlying the research is a belief that leaders lead most effectively when they are at their personal best; in this course, students learn to identify when that happens and how they can leverage their strengths toward a positive impact.

ART HISTORY

Introduction to Art History M

Exploring selected themes in art, students will view and analyze a wide variety of art works in different mediums from around the world and a range of historic periods. While this semester-long, introductory course is not a comprehensive survey, the class presents a basic overview of art from antiquity to the present, including the achievements of artistic giants, spanning from Leonardo da Vinci to Kara Walker.

CLASS XI

ENGLISH

All Class XI and XII students take their grade-level English course in the fall semester and an Advanced English course of their choosing in the spring semester.

Junior English

This required semester-long course is an immersive writing workshop, in which preconceptions about strong writing are challenged and the bounds of the essay genre are expanded to embrace expository writing, creative nonfiction, memoir, and the personal essay. Students read a wide range of essays as models for their writing, from canonical masters to contemporary writers published in *The New Yorker*. Essayists typically include Virginia Woolf, James Baldwin, Joan Didion, Martin Luther King, Jr., Bruno Bettelheim, Barbara Kingsolver, and David Foster Wallace. Students not only expand their repertoires as writers; they also learn to view writing as an active form of thinking and a principal tool of intellectual engagement. In the process, they move beyond set models to arrive more organically at meaningful organization. The last few weeks of the term are devoted to mid-twentieth-century American poets, including Elizabeth Bishop, Sylvia Plath, and Robert Lowell.

ENGLISH | SPRING ELECTIVE OFFERINGS

Advanced English: Literary Heroines

What does heroism look like in literature? Is it determined by characters' actions—whether they overcome obstacles, endure difficult times, or undergo personal growth? Or is it an innate quality reflected in how characters choose to live their lives? Is heroism even possible for fictional characters in our modern era? How might heroism differ when the protagonists are women? This semester course will explore these questions as they play out in several major works of fiction, most of them written by women about women. Authors are likely to include Jane Austen, Virginia Woolf, Edith Wharton, and Toni Morrison.

Advanced English: Masterpieces of American Literature

This course will explore several classic texts in American literature—an essential must-read list for every well-read student. Authors may include Herman Melville, Edith Wharton, Ernest Hemingway, Willa Cather, Philip Roth, Toni Morrison, or Jhumpa Lahiri. Writing assignments will be wide-ranging, from analytical essays to creative responses to the masters. At the end of the course, each student will choose one text from among several options for a final reading and writing project.

Advanced English: Literature from Hell

Satan, the Devil, Lucifer, the Adversary—this infamous embodiment of evil has tempted the minds and hearts of the innocent and the guilty, challenged God’s sovereignty in heaven, and even schemed to bring about the downfall of humankind. And he has persisted through literature under many names and in many guises. This course will consider the iconic depictions of Satan in the Bible, Dante’s *Inferno*, and Milton’s *Paradise Lost* and then explore his satanic transformations in modern literature. Modern texts may include Goethe’s play *Faust*, Joyce Carol Oates’ story “Where are You Going? Where Have You Been?,” Mikhail Bulgakov’s novel *The Master and Margarita* and Neil Gaiman’s graphic novel *The Sandman*.

Advanced English: The Art of the Short Story

In our internet age, when our attention seems constantly divided, the short story—which demands a mastery of precision, pacing, and voice—can provide both a window into literary history and a bite-size jolt of pleasure. In this course we’ll start with Russian masters Gogol and Chekhov, moving through experiments in modernism to the realism of Flannery O’Connor, James Baldwin, and Toni Cade Bambara. Then we’ll turn to contemporary stories in a range of styles, from authors such as George Saunders, ZZ Packer, Jhumpa Lahiri, Alexandra Kleeman, and Anthony Veasna So. We’ll also look at interviews with writers to learn about their process and gain an appreciation of craft. Ultimately, students will draw inspiration from our mentor texts and try their hand at their own original stories.

Philosophical Inquiry Into Our World **M**

Philosophy as an academic discipline can be esoteric, if not alienating, but we’re all philosophers at heart. In this minor, we’ll try to reignite the spark of wonder and curiosity we all had as children. What are you wondering about most these days, and what do you most want to discuss in community with others? We’ll generate the course agenda and questions together, immerse ourselves in sources that deepen our thinking, and work on making meaning (and, just as importantly, becoming more confused) together. We’ll generate questions wholly based on your interests, but here are some questions that have come up in the past: What “counts” as valuable work today? Is “leadership” overvalued? How much inequality are we okay with? What’s the fate of the high school English essay (or the Great American Novel) in the world of artificial intelligence? What if grades didn’t exist? If there are so many reasons to be a good person, why is it so hard?

HISTORY

United States History

This survey of the history of the United States is designed to introduce students to the events, themes, and assumptions that have shaped American institutions and the distribution of power within our society. Through a chronological survey that begins just prior to European colonization and concludes with the Cold War, students are challenged to find the changes and continuities that give character to our institutions, cultures, and social structure. Using methods and ways of thinking specific to the field of history, this course helps students understand that contemporary society has been shaped by the decisions and experiences of those who came before us. As a corollary, this course aims to inspire students to active citizenship and participation in and on behalf of the communities to which they belong. We rely heavily on primary sources, incorporate social and cultural history, follow current events, and consider historiographic changes in interpretation. Students will also learn advanced research methods, and the challenges of writing history by completing their own local history project that requires original research, including the use of census data.

HISTORY | ELECTIVE OFFERINGS

The following courses are open to Classes XI and XII. Additional requirements will be expected for those students wishing to take any of the major courses below at the advanced level. These requirements may include additional readings and assessments, as well as a significant project.

Modern Latin American History and Literature

In the course of the 20th century, seven Latin American authors have won the Nobel Prize: Gabriela Mistral (1945); Miguel Ángel Asturias (1967); Pablo Neruda (1971); Gabriel García Márquez (1982); Octavio Paz (1990); Rigoberta Menchú (Peace Prize, 1992); Mario Vargas Llosa (2010). Together, they give us a chance to consider some of the major literary and political movements in Latin America leading to the present. This course offers an interdisciplinary overview of society and culture in Latin America. Topics include the legacies of conquest, patterns of economic development, changing roles of women, expressions of popular culture, cycles of political change, and U.S.-Latin American relations. Students will become familiar with political, economic, social, and cultural conditions that have produced conflict, change, and continuity in Latin America over the last 200 years. A focus will be placed on the literature from the time and place of each region covered in the course. This course is offered in English.

World Now

This course features an in-depth examination of the boldest and most provocative issues facing the world today. We begin with a Global Culture unit, in which we consider how social media such as Facebook, Instagram and TikTok have transformed life and society, raising questions about personal identity, truth, and privacy. In the International Developments unit, we discuss the global political landscape, marked by Russia’s War in Ukraine, the persistence of the international migrant crisis, and a rightward turn in international politics. Amidst discussions of the rise of authoritarianism and the decline of democracy throughout the world, we will also focus on China. We end this unit with a discussion of the state of transgender rights

throughout the world. In our America in the World Now unit, we consider the many ways in which our own nation remains an international outlier, also discussing the pandemic, populist politics, mass incarceration, gun ownership, conspiracy theories, and reproductive rights. Finally, we will thoroughly address the lead-up to the 2024 presidential election.

History, Gender, Power

Why has gender inequality been so persistent in history? What accounts for feminism's successes and failures? How does the past resonate in contemporary struggles of women, LGBTQ, and other marginalized people? In exploring these and related questions, this class takes a thematic approach to the history of women, gender, and sexuality, drawing on case studies that range from the Hebrew Bible to 17th century ideas about female bodies to the national liberation movement in twentieth-century Kenya to bell hooks's critiques of Second Wave feminists. Through this course, students will develop an understanding of the persistence of gender inequality in wide-ranging historical contexts; intersectionality; varieties of feminism; women and work; the development of modern ideas about sexuality, gender, and identity; and the legacies of twentieth-century movements for justice and equality.

New York City in History

New York City's history is a palimpsest of peoples and cultures, traditions and customs, buildings and structures. Scratch the surface at any one time and multiple layers of experiences reside below. It is always a thing in motion, a place evolving, transforming itself from one thing to another. It has never been the same city at the same time, indeed, there are multiple New York Cities, operating in both the past and the present. Our mission this semester is to attempt to discover these multiple New Yorks, excavating, exploring and observing. We will utilize a snapshot approach, looking at the city's history in chronological order but stopping to consider some details from distinct time periods: politics, architecture, entertainment, demography, neighborhoods, landmarks, institutions, lifestyles, famous people, and

notable events. Our course will focus on the history of Manhattan, with occasional trips to the other boroughs.

Case Studies in American Public Policy

Are corporations people? What constitutes a marriage? When, if ever, can race be a factor in the policies of educational institutions? Through case studies, students in this elective will consider how the Supreme Court has shaped U.S. society and evaluate whether the role of the Court has shifted in recent decades. The discussion-based classes will encourage students to challenge each other's assumptions about democratic values and practices, and draw their own conclusions about what "democracy" means in America. This course is ideal for anyone interested in deepening their practical and historical understanding of the American political process, and for those interested in gaining experience with the case method of instruction frequently used in business and law schools.

International Relations and its Discontents

How do international relations theorists and foreign policy analysts understand the world? What assumptions lead states and international institutions to intervention in some cases and inaction in others? Through theory and global case studies drawn from the decades after World War II, this course will introduce students to major debates in international studies that impact policy-making, power relations, and the dynamics of human societies in our contemporary world. Cases may include the partition of India and Pakistan, the Suez Crisis, the creation of the non-aligned movement, US interventions in Guatemala and Vietnam, the Sino-Soviet split under Mao, Soviet cultural relations with Mozambique, and the Iranian Revolution.

The Holocaust and Human Behavior M

Drawing upon the ground-breaking curriculum from Facing History and Ourselves, students will explore the essential question: What does learning about the choices people made during the rise of the Nazi Party and the Holocaust teach us about the power and impact of our choices today? In this course, we examine the period in the twentieth

century when Nazi Germany murdered six million Jews and millions of other civilians, in the midst of the most destructive war in human history. We will do a deep dive into a case study of the Weimar Republic and the Nazi Party's rise to power in Germany. Through primary sources, survivor interviews, film and other sources, we will bear witness to the human suffering of the Holocaust and examine the range of responses from individuals and nations to the mass murder of the Nazi regime, as well as the aftermath of these atrocities. In examining this history, we will weigh questions like how to achieve justice and reconciliation, and how painful histories should be remembered. We will also critically examine the rise in the United States of anti-semitism, hate speech and white nationalism, and consider the ways in which the rise of Nazi Germany and the history of the period educates us about our responsibilities in the world today.

MATHEMATICS

Precalculus

The applications of functions is the primary focus of Precalculus. Students deeply explore polynomial, rational, exponential, and logarithmic functions including all necessary skills used to manipulate these expressions including logarithm rules and factoring, using polynomial division. Trigonometric functions are also studied after an introduction to the Unit Circle. Transformations and applications of these functions are a main focus of the year. Sequences and series are introduced. Advanced topics may include: a study of an intuitive approach to limits and continuity.

The following courses are open to Classes XI and XII.

Statistics in the Era of Big Data

This course introduces students to the major themes of an exploratory analysis of data. Planning and conducting a study, variable distributions, various statistical tools to analyze both quantitative and qualitative data sets, statistical inference, and visual representation of data are major themes of the course. Students examine sampling, surveying, research and experimentation as methods of collecting

data. Correlation and Chi-squared Tests are used to explore the power of statistical inference and prediction. Students then use these tools to investigate topics of personal interest throughout the year. Data is used to understand themes and nuances in political polling and the process of redistricting. This year-long course is often about nuance in numbers, an idea less explored in most math courses.

Advanced Linear Algebra: Vectors and Modeling

Prerequisite: Advanced Calculus A

Linear Algebra is the study of linear systems of equations, vector spaces and linear transformations. It plays an important role in many areas of mathematics, statistics, engineering, the natural sciences and computer science. In this class, fundamental concepts such as vector, vector space, subspace, basis, dimension and linear transformation will be introduced and developed alongside applications drawn from statistics, economics, genetics, dynamical systems and probability.

Math for Social Action M

This semester-long course introduces and utilizes mathematical tools within statistics, data and regression analyses, and probability to explore injustice and inequities in American life. Through an inquiry-based approach, students investigate systems and structures of injustice; analyze the patterns and cycles that perpetuate inequities in political representation, housing, healthcare, and education; and identify the possible mathematical entry points to interrupt systemic injustice.

SCIENCE

Physics

Prerequisite: Two lab sciences, Biology and Chemistry recommended

Physics is an algebra-based first-year physics course open to all students who have successfully completed other lab science course(s). Physics and its applications surround us in our daily lives and we explore those connections by studying a broad range of topics and phenomena. Our major units of study include linear and non-linear kinematics, forces,

momentum, energy, electricity, magnetism, and light. Physics emphasizes conceptual understanding and problem solving while strengthening connections to mathematics and other branches of science. Experiential learning is central to our exploration of physics and this is accomplished through hands-on laboratory activities and some digital simulations.

SCIENCE | ADVANCED COURSES

After successful completion of the introductory course in a given discipline, motivated and interested students in Classes XI-XII are able to continue their studies in an advanced level course. Advanced science courses involve more in-depth study, increased independent learning, and often a quicker pace to the learning process. Class XI students must enroll in physics to enroll concurrently in an advanced course in biology or chemistry.

Advanced Biology: Biology of the Nervous System

Prerequisites: Biology and Chemistry

In this semester-long class we will study the biology of the nervous system. We will begin by studying basic neurochemistry and then examining neurological and neurodegenerative diseases, including major depression, multiple sclerosis, Parkinson's disease, Alzheimer's disease, and ALS. We will read primary sources as we look at treatment options and their mechanisms of action, as well as the current research. The lab component of the class will consist of brain dissections in which we study the anatomy and function of the brain.

Advanced Biology: Biochemistry

Prerequisites: Biology and Chemistry

This semester-long course is an introduction to the study of biochemistry, focusing on the chemistry relevant to animal physiology and the link between biochemical processes and metabolic diseases and disorders. In short, students will develop an understanding of how biochemical processes work by uncovering what happens when they don't work properly. The semester begins with a review of macromolecules, chemical functional groups, and the chemical structure and properties of water. Then, organic chemistry and the significance of the carbon atom will be

studied, leading up to an emphasis on biochemical reactions and metabolic pathways regulated by enzymatic catalysts. The course will be lab intensive with an emphasis on college-level lab methodology and skills.

Advanced Chemistry: Analytical Chemistry

Prerequisite: Chemistry

Analytical chemistry is the branch of chemistry dealing with measurement, both qualitative and quantitative. This semester-long lab-based course focuses on applications of instrumental chemical analysis techniques for environmental monitoring, forensics, and food science. Field sites in Central Park and the East River Field are used to compare data with our own aquaponics system. Crime scene scenarios are staged for investigation. Food is prepared for analysis—and perhaps some tasting. The course is project based, and activities include planning of field work, sampling activity, sample preparation chemical analysis, interpretations of results and reporting.

Advanced Chemistry: Organic Chemistry

Prerequisite: Chemistry

Organic Chemistry is the study of compounds containing carbon. This semester-long lab based course covers the structure, bonding, and stereochemistry of these compounds, together with an emphasis on functional group characteristics, structure determination by spectrometric methods, reaction mechanisms, and synthesis.

Advanced Physics: Topics in Physics with Calculus

*Prerequisite: Physics **

Students must also be enrolled in Calculus

Offered in the second semester, Topics in Physics with Calculus revisits physics concepts learned previously, and it goes beyond the treatment of linear motion that occurs in all levels of calculus. We explore topics in physics applying vector arithmetic and calculus concepts such as limits, differentiation, optimization, integration, and more. This course provides students who may be considering a major in physics or engineering opportunities to apply their knowledge to challenging problems such as the optimization of projectile

range, the messy motion of objects encountering drag, rocket propulsion, and more. The student experience in our course will be one of greater depth with connections intentionally made between calculus and its applications in physics.

Biotechnology

Prerequisites: Biology and Chemistry; required for ISRP students

This intensive laboratory class prepares students for internships in research labs. Students will learn important techniques in molecular biology including gel electrophoresis, restriction enzyme digests, primer design, DNA amplification by polymerase chain reaction (PCR), nucleic acid extraction and purification, genetic engineering, bacterial/yeast transformations, DNA sequencing, protein isolation, protein purification and visualization, enzyme linked immunoassays (ELISA), and chromatography. In the process, skills of trouble-shooting, data analysis and effective scientific communication will be emphasized. Students will also learn about the historical development as well as ethical considerations and societal impacts of biotechnology. As a capstone, students will design and conduct an experiment to determine whether food products have been genetically modified.

A Sustainable World

Have you ever wondered just how much of an impact you and your household are having on the world? Do you struggle with making meaningful, long-lasting changes that are not overly costly or challenging to maintain? In this course, we will examine how sustainability must involve not only the protection and preservation of Earth and its natural resources, but also the health and prosperity of the people living there. This project-based class will allow us to explore a plethora of means by which individuals, communities, and organizations can work to lower their carbon footprint and lessen their negative effects on our natural world while not merely surviving, but actually thriving.

Public Health: Survey

Prerequisite: Biology

This semester-long course begins by introducing students to a brief history of public health starting with its emergence around the turn of the twentieth century, when infectious disease epidemics plagued London and New York City as the world's emerging population centers. A survey of the major subdisciplines of public health then follows, including methods of epidemiology, fundamental biostatistical analyses, and the spread and control of both communicable and non-communicable diseases. The future of public health is also considered, particularly as climate change continues to affect the global distribution of pathogens and of the humans that serve as their hosts.

Psychology: Biological and Behavioral Approaches

Prerequisite: Biology

In this semester-long class students will gain an introduction to psychology from the biological and behavioral perspectives. They will begin by learning about psychology as a discipline, the different approaches you can take towards it, and experimentation methods. Students will then study basic neurobiology/neuroanatomy followed by a focus on sensation and perception. They will then move to a more behavioral approach, studying learning and memory, motivation and emotion, personality, and social psychology. Students will participate in regular online and classroom discussions on pertinent psychological topics and will develop scientific research and writing skills while exploring psychological topics of their own interest.

Anatomy and Physiology

Prerequisites: Biology

This anatomy and physiology major elective will offer students a lab intensive course, in which they will study some of the major organs in mammals. Each unit will focus on one of the body's major systems and include a one to two day dissection period. Dissections will include a cow's heart, a cow's brain, and a sheep's pluck. This class will give those students interested in the biological sciences an opportunity to delve deeper into each system and have a significant experiential learning.

Science Seminar M

Required for ISRP students

In this year-long course, students develop advanced scientific literacy and communication skills. Students present talks on an area previously researched in a lab or field setting or on a current topic of interest from a scientific lens. Students also hear from outside speakers and attend educational programs at local universities and research institutions. In addition, students are guided and supported through the process of securing a science internship. This class meets twice per eight-day cycle and graded on a pass/fail basis. Students who have been accepted in the Independent Science Research Program must enroll in Science Seminar each academic year they are a part of the program; other students are invited to attend as space permits.

INDEPENDENT SCIENCE RESEARCH PROGRAM

The Independent Science Research Program is open to highly skilled, motivated, and dedicated students of science in Classes XI–XII. Students apply to the program during the spring semester of Class X, and by applying to the program, students indicate an intention to commit at least six to eight weeks to intensive science research during the summer between Class XI and Class XII. While most research placements involve a lab setting, field placements are also possible. In addition, students in the program must enroll in the Advanced Science: Biotechnology course during the spring semester of Class XI, and they must enroll in the Science Seminar course every year that they are in the program.

CLASSICS

Advanced Latin: Latin Lyric or Latin Epic

Latin Lyric and Latin Epic are offered in alternate years. Latin Epic will be the Advanced Latin course offered in the 2024–2025 academic year.

Latin Lyric

Students will study and analyze works of Roman lyric poets with an emphasis on Catullus and Horace under various lenses, such as the cultural and socio-political context in which these poems were created, their generic

characteristics, and their intertextual relationships. Close attention will be paid to morphological and syntactical phenomena, and rhetorical, poetic, and metrical figures. More in-depth textual analysis will be enhanced by the study of materials from recent scholarship. In addition to the assigned readings, students will practice translating different prose and poetry authors at sight and will prepare lyric poems of their own choice to present in class.

Latin Epic

This course is devoted to the study of Latin epic poetry with a focus on the most illustrious representative of the genre, Vergil's Aeneid. Readings will also include the Aeneid's literary heritage (Ennius's Annales) and legacy (Lucan's Pharsalia, Silius Italicus's Punica, and Statius's Thebaid). The class will examine the conventions and techniques of the genre and trace the development of the epic hero from its Republican beginnings onward. Lastly, Latin Epic will study how authors manipulated the epic genre and examine to what extent their works were used as a tool of imperial propaganda.

Ancient Greek 1.1 M

This course introduces students to the foundational building blocks of Ancient Greek: the alphabet along with some basic vocabulary and grammar. It will include readings and exercises that aim to help students learn the language of Homer, Sappho, Sophocles, and Plato, and will address historical, cultural, and linguistic themes within these texts.

Ancient Greek 1.2 M

Prerequisite: Ancient Greek 1.1 or the equivalent

Students will expand their knowledge of the language through readings and exercises, focusing on grammar and enriching their vocabulary. In addition, they will translate excerpts from texts in the original Greek and continue to engage with themes central to the history and culture of the Ancient Greeks.

Ancient Greek 2.1 M

Prerequisite: Ancient Greek 1.2 or equivalent

In this course, students will continue their exploration of

the Ancient Greek language and culture. They will develop linguistic dexterity by studying more advanced grammar and vocabulary, hone their translation skills through texts and exercises, and acquire a deeper understanding of what the Ancient Greeks have contributed to philosophy, politics, and education. At the end of the term, students will complete a project that will challenge them to connect with their learning and engage with the material on a more personal level.

Ancient Greek 2.2 M

Prerequisite: Ancient Greek 2.1 or equivalent

In this course, students will engage with the Ancient Greek language and culture through the translation, examination, and analysis of excerpts from such texts as the Homeric Hymn to Aphrodite, Plato's Apology and Symposium, and Sophocles's Antigone. Students will continue to study morphology, syntax, and vocabulary tailored to the demands of each text. Readings in English will focus on the contributions of the Ancient Greeks to literature, art, and science. Furthermore, students will be asked to memorize and recite short passages as an exercise in pronunciation, listening, and memorization. The course will conclude with a capstone project that students will develop and present to the class.

ANCIENT PHILOSOPHY

In these two minor courses students will explore the Ancient Greek origins of philosophy in the Western tradition. They will examine the questions Ancient Greek philosophy addressed and how it attempted to answer them.

Ancient Philosophy 1 M

The course will begin with the natural philosophers of the 6th century BCE, Thales, Anaximander, Anaximenes, Heraclitus, Parmenides, Anaxagoras, and Democritus, who attempted to address the origins and nature of the cosmos and are credited with being the first scientists in the Western tradition. The course will conclude with Plato, who, through the medium of Socrates's teaching, shifted philosophical thinking to virtue, eros, the nature of knowledge, beauty and the common good. Readings will be drawn from primary sources in translation

as well as secondary sources. Students will engage with the reading through written responses and class discussions and will develop a capstone project that will bring together what they learned over the course of the term.

This course can be taken alone or with Ancient Philosophy 2.

Ancient Philosophy 2 M

The course will begin with Aristotle, Plato's student and Alexander the Great's tutor, who studied and wrote on a range of topics from the natural sciences to poetics and politics. At the conclusion of the semester, the course will study the Epicureans and Stoics and explore how these Hellenistic thinkers transformed philosophy and influenced Western thought. Readings will be drawn from primary sources in translation as well as secondary sources. Students will engage with the reading through written responses and class discussions and will develop a capstone project that will bring together what they learned over the course of the term. *This course can be taken alone or with Ancient Philosophy 1.*

MODERN LANGUAGES

French 1

This course serves as an introduction to the French language and begins with the most rudimentary aspects of the language. It is intended for students with no prior French experience or who would benefit from a comprehensive review of the basics. Though introductory in nature, the pace of the course is quick and is intended to prepare students for French 2 the following year. A large amount of vocabulary is presented, and several of the most common tenses are introduced and practiced. This course is open to all students in Classes IX–XII who are beginning their study of French outside of the curriculum sequence that began in Middle School.

French 2

Pre-requisite: French 1 or by placement

In addition to the review and consolidation of the grammatical structures acquired in earlier years of French language study, the future and conditional tenses are studied in depth, along with the subjunctive mood. Short

readings about contemporary French culture are used to contextualize grammar and new vocabulary. Students are required to write short compositions, translations, and dictations.

French 3

Pre-requisite: French 2 or by placement

With the expectation that students at this level have mastered fundamentals of grammar and vocabulary, this course rapidly reviews the entirety of French moods and tenses, paying particular attention to common pitfalls that affect even advanced students (such as past-participle agreement or multiple object pronouns). This class highlights moments from French history, as well as elements of French culture (art, gastronomy, etc.) to deepen students' understanding of and connection with the broader context of the Francophone world. By the end of the year, students will demonstrate mastery of increasingly advanced concepts, such as relative pronouns, past infinitives, and present participles.

Advanced French: Language and Culture

Prerequisite: departmental placement

In this year-long course, students hone their writing, speaking, listening, and reading skills at an advanced level. In the first semester, instruction focuses on reading and writing while providing students with broad exposure to topics of cultural importance in the Francophone world. Readings are drawn from authentic French-language publications (newspapers, magazines, essays, Internet sites, etc.). Through numerous writing assignments, students not only analyze the content of what they read but also reflect on the cultural perspectives and biases that they encounter. In the second semester, the focus shifts to developing greater competency in listening and oral production, with an emphasis on situations students might face when traveling, studying, or working in a Francophone country. As students listen to a range of authentic audio (radio, television, cinema, Internet video, poetry, news reports, etc.), they critically assess and imitate native intonation, accent, register, and presentation styles - making them their own in the process.

French Minor M

Prerequisite: French 4 or department approval

Based on authentic written and recorded material, this course will develop comprehension and oral skills by addressing a variety of topics. Students will hone fluency in the spoken language through discussion of contemporary issues in French culture with emphasis on increasing vocabulary and ease in the manipulation of grammatical structures. The course aims to enhance language skills, linguistic awareness, and appreciation of contemporary France and French-speaking countries. Oral participation is required, especially since students will have many opportunities to express opinions and give explanations in the target language in discussions and debates. Particular interests will be integrated into the topics presented in class where possible.

Spanish 1

This course serves as an intensive introduction to the Spanish language and quickly progresses from basic aspects of the language to more sophisticated forms of writing and speech. It is intended for students who have no prior experience with Spanish or who would benefit from a comprehensive review of the basics. Though introductory in nature, the pace of the course is quick and is intended to prepare students for Spanish 2 the following year. A large amount of vocabulary is presented and the present, preterit, and imperfect tenses (along with all their irregularities) are introduced and practiced. This course is open to all students in Classes IX–XII who are beginning their study of Spanish outside of the curriculum sequence begun in Middle School.

Spanish 2

Pre-requisite: Spanish 1 or by placement

In addition to the review and consolidation of the grammatical structures acquired in earlier years of Spanish language study, the subjunctive and imperative moods are studied in depth. With the continued emphasis on the acquisition of active skills in writing and speaking, frequent short compositions and translations are required. Students must engage in short historical and cultural readings in which vocabulary and syntactical structures are contextualized.

Spanish 3

Pre-requisite: Spanish 2 or by placement

In this course, students begin more process oriented writing and speaking. The entirety of Spanish moods and tenses is reviewed and students are expected to use relative clauses, higher-order idioms, and a richer variety of vocabulary actively in both composition and oral presentations. Short literary selections in poetry and prose are introduced to contextualize the grammar and to introduce the richness of Hispanic culture and history.

Advanced Spanish Language and Culture

Prerequisite: departmental placement

In this year-long course, students hone their writing, speaking, listening, and reading skills at an advanced level. In the first semester, students explore a broad range of writing styles and genres while developing their critical writing and reading competencies. The reading list covers a variety of authentic literature (novels, short stories, poetry, news reports, magazine articles, etc.). Writing assignments require in-depth analysis and presentation of a particular point of view, while incorporating sophisticated idiomatic usage. In the second semester, students are exposed to a broad range of presentational speaking in Spanish (including radio, television, cinema, speeches, etc.). The course requires that students respond creatively and effectively within a broad range of real-life situations while producing dialogues, skits, and formal presentations.

Spanish Minor M

Prerequisite: Spanish 3 department approval

Based on authentic written and recorded material, this course will develop comprehension and oral skills by addressing a variety of topics. Students will hone fluency in the spoken language through discussion of contemporary issues in Spanish and Latin American cultures with emphasis on increasing vocabulary and ease in the manipulation of grammatical structures. The course aims to enhance language skills, linguistic awareness, and appreciation of the contemporary Spanish-speaking world. Oral participation is required, especially since students will have many opportunities

to express opinions and give explanations in the target language in discussions and debates. Particular interests will be integrated into the topics presented in class where possible.

Chinese 1

This introductory course in Mandarin focuses on the fundamentals of reading, writing, and speaking. As with any beginning language course, the focus is on practical skills relevant to the daily lives of students. Students in this course should prepare themselves for a considerable amount of memorization, especially given the use of characters in writing. This course is open to all students in Classes IX–XII who are beginning their study of Mandarin outside of the curriculum sequence begun in Middle School.

Chinese 2

Pre-requisite: Chinese 1 or by placement

This course is a natural continuation of what was covered in Chinese 1. A significant amount of new vocabulary and characters is added to the curriculum. Authentic readings are incorporated in the instruction to allow students to contextualize their understanding of written and spoken Mandarin. This course may be repeated for a second year if a student requires more time to consolidate her familiarity with the material.

Chinese 3

Pre-requisite: Chinese 2 or by placement

In this course, special attention is given to the mastery of written Mandarin in a variety of social and academic situations. Authentic texts, including contemporary media used in everyday life in China, are incorporated to help students gain practical skills in Mandarin. In conversation, students are taught to speak more colloquially; furthermore, grammar becomes increasingly abstract.

Advanced Chinese 1 and 2

Pre-requisite: Departmental approval

These advanced courses are designed for students who have achieved a high intermediate to advanced level of proficiency in Mandarin and wish to strengthen their spoken

and written fluency. Students continue to develop their skills through readings, written practice, and discussions of a variety of topics as these relate to contemporary China and Taiwan. These topics range from the environmental, to the artistic, to pop culture, to the economic, to societal changes, etc. Students develop their skills through the study of authentic printed materials, recorded segments, or Chinese-language films. The student's work at both levels of study varies from the traditional written composition to oral presentations in the target language.

Chinese Minor M

Prerequisite: Chinese 3 and/or department approval

Based on authentic written and recorded material, this course will develop comprehension and oral skills by addressing a variety of topics. Students hone fluency in the spoken language through discussion of contemporary issues in Chinese culture with emphasis on increasing vocabulary and ease in the manipulation of grammatical structures. The course aims to enhance language skills, linguistic awareness, and appreciation of contemporary China and Taiwan. Oral participation is required, especially since students will have many opportunities to express opinions and give explanations in the target language in discussions and debates. Particular interests will be integrated into the topics presented in class where possible.

COMPUTER SCIENCE

Design and Digital Fabrication II M

This course is a minor elective available to students who completed Design and Digital Fabrication. Through the single semester class, students will navigate the iterative design process as they work to turn a spark of inspiration into a tangible artifact. Ideas are prototyped and refined through successive iterations. Students will have access to a wide range of tools and technologies as they meet the challenge of bringing their ideas into reality. The design process is supported by critiques, field trips, history discussions, and in-class activities aimed at broadening and deepening students' understanding of design, the considerations that inform it, and how it impacts their daily lives.

Programming Interactive Graphics M

Computers play an important role in almost every aspect of modern society. No longer are they limited to the arenas of business and research, but they have emerged as integral to the creation and generation of graphics. This semester-long course is an exploration of methods for creating computer-generated graphics. Students will build their repertoire of programming skills and develop techniques for algorithmic problem solving, as they use programming languages and other emergent technologies in the development of meaningful personal projects.

HEALTH AND WELLNESS

Adolescent Health M

Adolescent health will meet three times per cycle for a semester and will be offered in both the fall and spring. It is a required course that students must take once as a sophomore or junior. With a focus on adapting safe and healthy behaviors, this course will address multiple dimensions of health. Students will build skills and gain knowledge that they will apply to real-life health scenarios for adolescents while in the classroom, and gain confidence to apply these skills and knowledge to improve their personal health in their everyday lives. Content areas including mental health, gender and sexuality, nutrition, and substance use and abuse will be covered in depth. Students will be better equipped to access valid health resources, reduce health and safety risks, identify and manage influences on personal health and safety, and use their strengths to enhance well-being.

GOING BEYOND BARRIERS

Public Speaking M

This course is an introduction to the fundamentals of good communication skills. Students prepare approximately eight speeches of varying lengths on topics of their choice for presentation to the class. They learn to critique their own work as well as that of their classmates.

ART HISTORY

Advanced Art History

Advanced Art History is equivalent to a 100 level art history survey course, following a roughly chronological approach, beginning from global prehistory to global modernisms and contemporary art. This year-long, intensive course provides students with the opportunity to deepen their knowledge and understanding of specific art works, traditions and movements, to contextualize art making practices and to refine analytical skills in their reading of art.

CLASS XII

ENGLISH

All Class XI and XII students take their grade-level English course in the fall semester and an Advanced English course of their choosing in the spring semester.

Senior English

This required semester-long course ranges across literary genres to explore unmet needs, dismantled stereotypes, and evolving gender roles in the twenty-first century. Current readings include Claudia Rankine's hybrid-genre lyric *Citizen*, William Faulkner's modernist novel *As I Lay Dying*, a sampler of Emily Dickinson's poetry, and Lynn Nottage's Pulitzer Prize-winning play, *Sweat*. Thanks to Nightingale's Drama Grant, students often attend and write reviews of a Broadway or off-Broadway play. Other writing assignments include the analytical and the creative. Each student presents a final interdisciplinary project that explores thematic connections between a Dickinson poem and one other literary work from the term.

ENGLISH | SPRING ELECTIVE OFFERINGS

Advanced English: Literary Heroines

What does heroism look like in literature? Is it determined by characters' actions—whether they overcome obstacles,

endure difficult times, or undergo personal growth? Or is it an innate quality reflected in how characters choose to live their lives? Is heroism even possible for fictional characters in our modern era? How might heroism differ when the protagonists are women? This semester course will explore these questions as they play out in several major works of fiction, most of them written by women about women. Authors are likely to include Jane Austen, Virginia Woolf, Edith Wharton, and Toni Morrison.

Advanced English: Masterpieces of American Literature

This course will explore several classic texts in American literature—an essential must-read list for every well-read student. Authors may include Herman Melville, Edith Wharton, Ernest Hemingway, Willa Cather, Philip Roth, Toni Morrison, or Jhumpa Lahiri. Writing assignments will be wide-ranging, from analytical essays to creative responses to the masters. At the end of the course, each student will choose one text from among several options for a final reading and writing project.

Advanced English: Literature from Hell

Satan, the Devil, Lucifer, the Adversary—this infamous embodiment of evil has tempted the minds and hearts of the innocent and the guilty, challenged God's sovereignty in heaven, and even schemed to bring about the downfall of humankind. And he has persisted through literature under many names and in many guises. This course will consider the iconic depictions of Satan in the Bible, Dante's *Inferno*, and Milton's *Paradise Lost* and then explore his satanic transformations in modern literature. Modern texts may include Goethe's play *Faust*, Joyce Carol Oates' story "Where are You Going? Where Have You Been?," Mikhail Bulgakov's novel *The Master and Margarita* and Neil Gaiman's graphic novel *The Sandman*.

Advanced English: The Art of the Short Story

In our internet age, when our attention seems constantly divided, the short story—which demands a mastery of precision, pacing, and voice—can provide both a window into literary history and a bite-size jolt of pleasure. In this

course we'll start with Russian masters Gogol and Chekhov, moving through experiments in modernism to the realism of Flannery O'Connor, James Baldwin, and Toni Cade Bambara. Then we'll turn to contemporary stories in a range of styles, from authors such as George Saunders, ZZ Packer, Jhumpa Lahiri, Alexandra Kleeman, and Anthony Veasna So. We'll also look at interviews with writers to learn about their process and gain an appreciation of craft. Ultimately, students will draw inspiration from our mentor texts and try their hand at their own original stories.

Philosophical Inquiry Into Our World M

Philosophy as an academic discipline can be esoteric, if not alienating, but we're all philosophers at heart. In this minor, we'll try to reignite the spark of wonder and curiosity we all had as children. What are you wondering about most these days, and what do you most want to discuss in community with others? We'll generate the course agenda and questions together, immerse ourselves in sources that deepen our thinking, and work on making meaning (and, just as importantly, becoming more confused) together. We'll generate questions wholly based on your interests, but here are some questions that have come up in the past: What "counts" as valuable work today? Is "leadership" overvalued? How much inequality are we okay with? What's the fate of the high school English essay (or the Great American Novel) in the world of artificial intelligence? What if grades didn't exist? If there are so many reasons to be a good person, why is it so hard?

HISTORY

United States History

This survey of the history of the United States is designed to introduce students to the events, themes, and assumptions that have shaped American institutions and the distribution of power within our society. Through a chronological survey that begins just prior to European colonization and concludes with the Cold War, students are challenged to find the changes and continuities that give character to our institutions, cultures, and social structure. Using methods and ways of thinking specific to the field of history, this

course helps students understand that contemporary society has been shaped by the decisions and experiences of those who came before us. As a corollary, this course aims to inspire students to active citizenship and participation in and on behalf of the communities to which they belong. We rely heavily on primary sources, incorporate social and cultural history, follow current events, and consider historiographic changes in interpretation. Students will also learn advanced research methods, and the challenges of writing history by completing their own local history project that requires original research, including the use of census data.

HISTORY | ELECTIVE OFFERINGS

The following courses are open to Classes XI and XII. Additional requirements will be expected for those students wishing to take any of the major courses below at the Advanced level. These requirements may include additional readings and assessments, as well as a significant project.

Modern Latin American History and Literature

In the course of the 20th century, seven Latin American authors have won the Nobel Prize: Gabriela Mistral (1945); Miguel Ángel Asturias (1967); Pablo Neruda (1971); Gabriel García Márquez (1982); Octavio Paz (1990); Rigoberta Menchú (Peace Prize, 1992); Mario Vargas Llosa (2010). Together, they give us a chance to consider some of the major literary and political movements in Latin America leading to the present. This course offers an interdisciplinary overview of society and culture in Latin America. Topics include the legacies of conquest, patterns of economic development, changing roles of women, expressions of popular culture, cycles of political change, and U.S.-Latin American relations. Students will become familiar with political, economic, social, and cultural conditions that have produced conflict, change, and continuity in Latin America over the last 200 years. A focus will be placed on the literature from the time and place of each region covered in the course. This course is offered in English.

World Now

This course features an in-depth examination of the boldest and most provocative issues facing the world today. We

begin with a Global Culture unit, in which we consider how social media such as Facebook, Instagram and TikTok have transformed life and society, raising questions about personal identity, truth, and privacy. In the International Developments unit, we discuss the global political landscape, marked by Russia's War in Ukraine, the persistence of the international migrant crisis, and a rightward turn in international politics. Amidst discussions of the rise of authoritarianism and the decline of democracy throughout the world, we will also focus on China. We end this unit with a discussion of the state of transgender rights throughout the world. In our America in the World Now unit, we consider the many ways in which our own nation remains an international outlier, also discussing the pandemic, populist politics, mass incarceration, gun ownership, conspiracy theories, and reproductive rights. Finally, we will thoroughly address the lead-up to the 2024 presidential election.

History, Gender, Power

Why has gender inequality been so persistent in history? What accounts for feminism's successes and failures? How does the past resonate in contemporary struggles of women, LGBTQ, and other marginalized people? In exploring these and related questions, this class takes a thematic approach to the history of women, gender, and sexuality, drawing on case studies that range from the Hebrew Bible to 17th century ideas about female bodies to the national liberation movement in twentieth-century Kenya to bell hooks's critiques of Second Wave feminists. Through this course, students will develop an understanding of the persistence of gender inequality in wide-ranging historical contexts; intersectionality; varieties of feminism; women and work; the development of modern ideas about sexuality, gender, and identity; and the legacies of twentieth-century movements for justice and equality.

New York City in History

New York City's history is a palimpsest of peoples and cultures, traditions and customs, buildings and structures. Scratch the surface at any one time and multiple layers of experiences reside below. It is always a thing in motion, a

place evolving, transforming itself from one thing to another. It has never been the same city at the same time, indeed, there are multiple New York Cities, operating in both the past and the present. Our mission this semester is to attempt to discover these multiple New Yorks, excavating, exploring and observing. We will utilize a snapshot approach, looking at the city's history in chronological order but stopping to consider some details from distinct time periods: politics, architecture, entertainment, demography, neighborhoods, landmarks, institutions, lifestyles, famous people, and notable events. Our course will focus on the history of Manhattan, with occasional trips to the other boroughs.

Case Studies in American Public Policy

Are corporations people? What constitutes a marriage? When, if ever, can race be a factor in the policies of educational institutions? Through case studies, students in this elective will consider how the Supreme Court has shaped U.S. society and evaluate whether the role of the Court has shifted in recent decades. The discussion-based classes will encourage students to challenge each other's assumptions about democratic values and practices, and draw their own conclusions about what "democracy" means in America. This course is ideal for anyone interested in deepening their practical and historical understanding of the American political process, and for those interested in gaining experience with the case method of instruction frequently used in business and law schools.

International Relations and its Discontents

How do international relations theorists and foreign policy analysts understand the world? What assumptions lead states and international institutions to intervention in some cases and inaction in others? Through theory and global case studies drawn from the decades after World War II, this course will introduce students to major debates in international studies that impact policy-making, power relations, and the dynamics of human societies in our contemporary world. Cases may include the partition of India and Pakistan, the Suez Crisis, the creation of the non-aligned movement, US interventions in Guatemala and

Vietnam, the Sino-Soviet split under Mao, Soviet cultural relations with Mozambique, and the Iranian Revolution.

The Holocaust and Human Behavior M

Drawing upon the ground-breaking curriculum from Facing History and Ourselves, students will explore the essential question: What does learning about the choices people made during the rise of the Nazi Party and the Holocaust teach us about the power and impact of our choices today? In this course, we examine the period in the twentieth century when Nazi Germany murdered six million Jews and millions of other civilians, in the midst of the most destructive war in human history. We will do a deep dive into a case study of the Weimar Republic and the Nazi Party's rise to power in Germany. Through primary sources, survivor interviews, film and other sources, we will bear witness to the human suffering of the Holocaust and examine the range of responses from individuals and nations to the mass murder of the Nazi regime, as well as the aftermath of these atrocities. In examining this history, we will weigh questions like how to achieve justice and reconciliation, and how painful histories should be remembered. We will also critically examine the rise in the United States of anti-semitism, hate speech and white nationalism, and consider the ways in which the rise of Nazi Germany and the history of the period educates us about our responsibilities in the world today.

MATHEMATICS

Calculus

This course covers the concepts, techniques, and applications of differential and integral calculus. Students start with a comprehensive look at functions, limits, and continuity. From there the concept of the derivative is developed, and derivative rules are established for many types of functions and their inverses: polynomial, rational, trigonometric, logarithmic, and exponential. The Fundamental Theorem of Calculus bridges the derivative to the integral, and the use of integration in area, volume, and summation problems is practiced.

Advanced B level topics will include: optimization, related rates,

the Riemann Sum, the revolution of solids.

Advanced A level topics will also include: polar coordinates, vector functions, parametrically defined curves, and elementary differential equations.

Advanced Calculus (B Level)

Departmental permission required

This course begins with a swift review of functions, limits, and continuity. Students study differential calculus in depth, beginning with the definition of the derivative and differentiation rules and continuing with applications such as optimization and related rates problems. Through discussion of the Riemann Sum and the anti-derivative, the integral is introduced. The second semester focuses on applications of the Fundamental Theorem of Calculus, techniques of integration, areas between curves, and volumes of solids of revolution.

Advanced Calculus (A Level)

Departmental permission required

This course begins with the topics in differential and integral calculus covered in Advanced Calculus (B Level). Additional topics investigated include polar coordinates, vector functions, parametrically defined curves, logistic curves, sequences and series, integration by parts and partial fractions, and elementary differential equations.

The following courses are open to Classes XI and XII.

Statistics in the Era of Big Data

This course introduces students to the major themes of an exploratory analysis of data. Planning and conducting a study, variable distributions, various statistical tools to analyze both quantitative and qualitative data sets, statistical inference, and visual representation of data are major themes of the course. Students examine sampling, surveying, research and experimentation as methods of collecting data. Correlation and Chi-squared Tests are used to explore the power of statistical inference and prediction. Students then use these tools to investigate topics of personal interest throughout the year. Data is used to

understand themes and nuances in political polling and the process of redistricting. This year-long course is often about nuance in numbers, an idea less explored in most math courses.

Advanced Linear Algebra: Vectors and Modeling

Prerequisite: Advanced Calculus A

Linear Algebra is the study of linear systems of equations, vector spaces and linear transformations. It plays an important role in many areas of mathematics, statistics, engineering, the natural sciences and computer science. In this class, fundamental concepts such as vector, vector space, subspace, basis, dimension and linear transformation will be introduced and developed alongside applications drawn from statistics, economics, genetics, dynamical systems and probability.

Math for Social Action M

This semester-long course introduces and utilizes mathematical tools within statistics, data and regression analyses, and probability to explore injustice and inequities in American life. Through an inquiry-based approach, students investigate systems and structures of injustice; analyze the patterns and cycles that perpetuate inequities in political representation, housing, healthcare, and education; and identify the possible mathematical entry points to interrupt systemic injustice.

SCIENCE

Physics

Prerequisite: Two lab sciences, Biology and Chemistry recommended

Physics is an algebra-based first-year physics course open to all students who have successfully completed other lab science course(s). Physics and its applications surround us in our daily lives and we explore those connections by studying a broad range of topics and phenomena. Our major units of study include linear and non-linear kinematics, forces, momentum, energy, electricity, magnetism, and light. Physics emphasizes conceptual understanding and problem solving while strengthening connections to mathematics and

other branches of science. Experiential learning is central to our exploration of physics and this is accomplished through hands-on laboratory activities and some digital simulations.

SCIENCE | ADVANCED COURSES

After successful completion of the introductory course in a given discipline, motivated and interested students in Classes XI-XII are able to continue their studies in an advanced level course. Advanced science courses involve more in-depth study, increased independent learning, and often a quicker pace to the learning process. Class XI students must enroll in physics to enroll concurrently in an advanced course in biology or chemistry.

Advanced Biology: Biology of the Nervous System

Prerequisites: Biology and Chemistry

In this semester-long class we will study the biology of the nervous system. We will begin by studying basic neurochemistry and then examining neurological and neurodegenerative diseases, including major depression, multiple sclerosis, Parkinson's disease, Alzheimer's disease, and ALS. We will read primary sources as we look at treatment options and their mechanisms of action, as well as the current research. The lab component of the class will consist of brain dissections in which we study the anatomy and function of the brain.

Advanced Biology: Biochemistry

Prerequisites: Biology and Chemistry

This semester-long course is an introduction to the study of biochemistry, focusing on the chemistry relevant to animal physiology and the link between biochemical processes and metabolic diseases and disorders. In short, students will develop an understanding of how biochemical processes work by uncovering what happens when they don't work properly. The semester begins with a review of macromolecules, chemical functional groups, and the chemical structure and properties of water. Then, organic chemistry and the significance of the carbon atom will be studied, leading up to an emphasis on biochemical reactions and metabolic pathways regulated by enzymatic catalysts.

The course will be lab intensive with an emphasis on college-level lab methodology and skills.

Advanced Chemistry: Analytical Chemistry

Prerequisite: Chemistry

Analytical chemistry is the branch of chemistry dealing with measurement, both qualitative and quantitative. This semester-long lab-based course focuses on applications of instrumental chemical analysis techniques for environmental monitoring, forensics, and food science. Field sites in Central Park and the East River Field are used to compare data with our own aquaponics system. Crime scene scenarios are staged for investigation. Food is prepared for analysis—and perhaps some tasting. The course is project based, and activities include planning of field work, sampling activity, sample preparation chemical analysis, interpretations of results and reporting.

Advanced Chemistry: Organic Chemistry

Prerequisite: Chemistry

Organic Chemistry is the study of compounds containing carbon. This semester-long lab based course covers the structure, bonding, and stereochemistry of these compounds, together with an emphasis on functional group characteristics, structure determination by spectrometric methods, reaction mechanisms, and synthesis.

Advanced Physics: Topics in Physics with Calculus

*Prerequisite: Physics **

Students must also be enrolled in Calculus

Offered in the second semester, Topics in Physics with Calculus revisits physics concepts learned previously, and it goes beyond the treatment of linear motion that occurs in all levels of calculus. We explore topics in physics applying vector arithmetic and calculus concepts such as limits, differentiation, optimization, integration, and more. This course provides students who may be considering a major in physics or engineering opportunities to apply their knowledge to challenging problems such as the optimization of projectile range, the messy motion of objects encountering drag, rocket propulsion, and more. The

student experience in our course will be one of greater depth with connections intentionally made between calculus and its applications in physics.

Advanced Physics: Engineering

*Prerequisites: Biology, Chemistry, and Physics
(can be enrolled concurrently with approval)*

In this hands-on project based class, we will explore applications of the core Upper School science disciplines: biology, chemistry, and physics via the lens of engineering. The engineering themes of iterative design, optimization with constraints, collaboration, and effective communication will be emphasized and associated skills will be taught and developed. Because the class is interdisciplinary, modules will focus on a project or projects that combine multiple science disciplines, and specific emphasis will be placed on relating our designs to concepts studied in our prior (and concurrent) Upper School science classes, with a particular emphasis on physics. We will explore fields of engineering such as mechanical engineering, electrical engineering, chemical engineering, and environmental engineering through a variety of smaller and longer term projects such as: building vehicles and wind turbines, designing camera obscuras, building musical keyboards, optimizing processes such as coffee production, and designing air quality and flood water sensors that can be used in crowd-sourced science projects such as Citizen Science, or in a collaboration with an environmental engineering lab at NYU.

Biotechnology

*Prerequisites: Biology and Chemistry;
required for ISRP students*

This intensive laboratory class prepares students for internships in research labs. Students will learn important techniques in molecular biology including gel electrophoresis, restriction enzyme digests, primer design, DNA amplification by polymerase chain reaction (PCR), nucleic acid extraction and purification, genetic engineering, bacterial/yeast transformations, DNA sequencing, protein isolation, protein purification and

visualization, enzyme linked immunoassays (ELISA), and chromatography. In the process, skills of trouble-shooting, data analysis and effective scientific communication will be emphasized. Students will also learn about the historical development as well as ethical considerations and societal impacts of biotechnology. As a capstone, students will design and conduct an experiment to determine whether food products have been genetically modified.

A Sustainable World

Have you ever wondered just how much of an impact you and your household are having on the world? Do you struggle with making meaningful, long-lasting changes that are not overly costly or challenging to maintain? In this course, we will examine how sustainability must involve not only the protection and preservation of Earth and its natural resources, but also the health and prosperity of the people living there. This project-based class will allow us to explore a plethora of means by which individuals, communities, and organizations can work to lower their carbon footprint and lessen their negative effects on our natural world while not merely surviving, but actually thriving.

Public Health: Survey

Prerequisite: Biology

This semester-long course begins by introducing students to a brief history of public health starting with its emergence around the turn of the twentieth century, when infectious disease epidemics plagued London and New York City as the world's emerging population centers. A survey of the major subdisciplines of public health then follows, including methods of epidemiology, fundamental biostatistical analyses, and the spread and control of both communicable and non-communicable diseases. The future of public health is also considered, particularly as climate change continues to affect the global distribution of pathogens and of the humans that serve as their hosts.

Psychology: Biological and Behavioral Approaches

Prerequisite: Biology

In this semester-long class students will gain an introduction

to psychology from the biological and behavioral perspectives. They will begin by learning about psychology as a discipline, the different approaches you can take towards it, and experimentation methods. Students will then study basic neurobiology/neuroanatomy followed by a focus on sensation and perception. They will then move to a more behavioral approach, studying learning and memory, motivation and emotion, personality, and social psychology. Students will participate in regular online and classroom discussions on pertinent psychological topics and will develop scientific research and writing skills while exploring psychological topics of their own interest.

Anatomy and Physiology

Prerequisites: Biology

This anatomy and physiology major elective will offer students a lab intensive course, in which they will study some of the major organs in mammals. Each unit will focus on one of the body's major systems and include a one to two day dissection period. Dissections will include a cow's heart, a cow's brain, and a sheep's pluck. This class will give those students interested in the biological sciences an opportunity to delve deeper into each system and have a significant experiential learning.

Science Seminar M

Required for ISRP students

In this year-long course, students develop advanced scientific literacy and communication skills. Students present talks on an area previously researched in a lab or field setting or on a current topic of interest from a scientific lens. Students also hear from outside speakers and attend educational programs at local universities and research institutions. In addition, students are guided and supported through the process of securing a science internship. This class meets twice per eight-day cycle and graded on a pass/fail basis. Students who have been accepted in the Independent Science Research Program must enroll in Science Seminar each academic year they are a part of the program; other students are invited to attend as space permits.

Independent Science Research Program

The Independent Science Research Program is open to highly skilled, motivated, and dedicated students of science in Classes XI–XII. Students apply to the program during the spring semester of Class X, and by applying to the program, students indicate an intention to commit at least six to eight weeks to intensive science research during the summer between Class XI and Class XII. While most research placements involve a lab setting, field placements are also possible. In addition, students in the program must enroll in the Advanced Science: Biotechnology course during the spring semester of Class XI, and they must enroll in the Science Seminar course every year that they are in the program.

CLASSICS

Advanced Latin: Latin Lyric or Latin Epic

Latin Lyric and Latin Epic are offered in alternate years. Latin Epic will be the Advanced Latin course offered in the 2024–2025 academic year.

Latin Lyric

Students will study and analyze works of Roman lyric poets with an emphasis on Catullus and Horace under various lenses, such as the cultural and socio-political context in which these poems were created, their generic characteristics, and their intertextual relationships. Close attention will be paid to morphological and syntactical phenomena, and rhetorical, poetic, and metrical figures. More in-depth textual analysis will be enhanced by the study of materials from recent scholarship. In addition to the assigned readings, students will practice translating different prose and poetry authors at sight and will prepare lyric poems of their own choice to present in class.

Latin Epic

This course is devoted to the study of Latin epic poetry with a focus on the most illustrious representative of the genre, Vergil's *Aeneid*. Readings will also include the *Aeneid*'s literary heritage (Ennius's *Annales*) and legacy (Lucan's *Pharsalia*, Silius Italicus's *Punica*, and Statius's *Thebaid*).

The class will examine the conventions and techniques of the genre and trace the development of the epic hero from its Republican beginnings onward. Lastly, Latin Epic will study how authors manipulated the epic genre and examine to what extent their works were used as a tool of imperial propaganda.

Ancient Greek 1.1 M

This course introduces students to the foundational building blocks of Ancient Greek: the alphabet along with some basic vocabulary and grammar. It will include readings and exercises that aim to help students learn the language of Homer, Sappho, Sophocles, and Plato, and will address historical, cultural, and linguistic themes within these texts.

Ancient Greek 1.2 M

Prerequisite: Ancient Greek 1.1 or the equivalent

Students will expand their knowledge of the language through readings and exercises, focusing on grammar and enriching their vocabulary. In addition, they will translate excerpts from texts in the original Greek and continue to engage with themes central to the history and culture of the Ancient Greeks.

Ancient Greek 2.1 M

Prerequisite: Ancient Greek 1.2 or equivalent

In this course, students will continue their exploration of the Ancient Greek language and culture. They will develop linguistic dexterity by studying more advanced grammar and vocabulary, hone their translation skills through texts and exercises, and acquire a deeper understanding of what the Ancient Greeks have contributed to philosophy, politics, and education. At the end of the term, students will complete a project that will challenge them to connect with their learning and engage with the material on a more personal level.

Ancient Greek 2.2 M

Prerequisite: Ancient Greek 2.1 or equivalent

In this course, students will engage with the Ancient Greek language and culture through the translation, examination,

and analysis of excerpts from such texts as the Homeric Hymn to Aphrodite, Plato's Apology and Symposium, and Sophocles's Antigone. Students will continue to study morphology, syntax, and vocabulary tailored to the demands of each text. Readings in English will focus on the contributions of the Ancient Greeks to literature, art, and science. Furthermore, students will be asked to memorize and recite short passages as an exercise in pronunciation, listening, and memorization. The course will conclude with a capstone project that students will develop and present to the class.

Ancient Greek 3.1 M

Prerequisite: Ancient Greek 2.2 or equivalent

This course will focus on Greek prose. Students will continue to develop their linguistic skills and their understanding of Ancient Greek culture through the translation, examination, and analysis of excerpts of original Ancient Greek texts, such as Herodotus's Histories, Plutarch's Life of Alcibiades, and Aristotle's Rhetoric. Readings in translation will provide students with a broader context for each text and challenge them to consider for which audience and with which objectives these texts were constructed, which people, qualities, and actions they vaunt, decry, or simply leave out, and what role rhetoric plays in each of them. The course will conclude with a capstone project that students will develop and present to the class.

Ancient Greek 3.2 M

Prerequisite: Ancient Greek 3.1 or equivalent

This course will focus on Greek poetry. Students will continue to hone their translation and analytical skills and will also learn about Greek meter and its role in determining genre. They will translate, metrically scan, and examine excerpts from Homer, Sappho, Euripides, Aristophanes, and Callimachus, and will further engage with the material through readings in translation, secondary sources, and works of literature and art inspired by these texts. The course will conclude with a capstone project that students will develop and present to the class.

Ancient Philosophy

In these two minor courses students will explore the Ancient Greek origins of philosophy in the Western tradition. They will examine the questions Ancient Greek philosophy addressed and how it attempted to answer them.

Ancient Philosophy 1 M

The course will begin with the natural philosophers of the 6th century BCE, Thales, Anaximander, Anaximenes, Heraclitus, Parmenides, Anaxagoras, and Democritus, who attempted to address the origins and nature of the cosmos and are credited with being the first scientists in the Western tradition. The course will conclude with Plato, who, through the medium of Socrates's teaching, shifted philosophical thinking to virtue, eros, the nature of knowledge, beauty and the common good. Readings will be drawn from primary sources in translation as well as secondary sources. Students will engage with the reading through written responses and class discussions and will develop a capstone project that will bring together what they learned over the course of the term.

This course can be taken alone or with Ancient Philosophy 2.

Ancient Philosophy 2 M

The course will begin with Aristotle, Plato's student and Alexander the Great's tutor, who studied and wrote on a range of topics from the natural sciences to poetics and politics. At the conclusion of the semester, the course will study the Epicureans and Stoics and explore how these Hellenistic thinkers transformed philosophy and influenced Western thought. Readings will be drawn from primary sources in translation as well as secondary sources. Students will engage with the reading through written responses and class discussions and will develop a capstone project that will bring together what they learned over the course of the term.

This course can be taken alone or with Ancient Philosophy 1.

MODERN LANGUAGES

French 1

This course serves as an introduction to the French language and begins with the most rudimentary aspects of the

language. It is intended for students with no prior French experience or who would benefit from a comprehensive review of the basics. Though introductory in nature, the pace of the course is quick and is intended to prepare students for French 2 the following year. A large amount of vocabulary is presented, and several of the most common tenses are introduced and practiced. This course is open to all students in Classes IX–XII who are beginning their study of French outside of the curriculum sequence that began in Middle School.

French 2

Pre-requisite: French 1 or by placement

In addition to the review and consolidation of the grammatical structures acquired in earlier years of French language study, the future and conditional tenses are studied in depth, along with the subjunctive mood. Short readings about contemporary French culture are used to contextualize grammar and new vocabulary. Students are required to write short compositions, translations, and dictations.

French 3

Pre-requisite: French 2 or by placement

With the expectation that students at this level have mastered fundamentals of grammar and vocabulary, this course rapidly reviews the entirety of French moods and tenses, paying particular attention to common pitfalls that affect even advanced students (such as past-participle agreement or multiple object pronouns). This class highlights moments from French history, as well as elements of French culture (art, gastronomy, etc.) to deepen students' understanding of and connection with the broader context of the Francophone world. By the end of the year, students will demonstrate mastery of increasingly advanced concepts, such as relative pronouns, past infinitives, and present participles.

Advanced French: Language and Culture

Prerequisite: departmental placement

In this year-long course, students hone their writing, speaking, listening, and reading skills at an advanced level. In the first

semester, instruction focuses on reading and writing while providing students with broad exposure to topics of cultural importance in the Francophone world. Readings are drawn from authentic French-language publications (newspapers, magazines, essays, Internet sites, etc.). Through numerous writing assignments, students not only analyze the content of what they read but also reflect on the cultural perspectives and biases that they encounter. In the second semester, the focus shifts to developing greater competency in listening and oral production, with an emphasis on situations students might face when traveling, studying, or working in a Francophone country. As students listen to a range of authentic audio (radio, television, cinema, Internet video, poetry, news reports, etc.), they critically assess and imitate native intonation, accent, register, and presentation styles - making them their own in the process.

The following advanced electives represent recent course offerings—one literature and one arts course are offered each year.

Advanced French: La littérature d'Afrique noire

Prerequisite: Advanced French Language or department approval

This semester course serves as an introduction to Black African Literature. Students explore subSaharan Francophone literature at the confluence of various currents: its own local and diverse traditions, the impact of the Arab and Islamic worlds, and of course the omnipresent influence of European colonialism. In this course, students distinguish the different periods in which this Black African literature fits, in particular the pre-colonial period, the colonial period, and the era of post-independence of 1941- 1974. Students dedicate considerable time to the reading of Aimé Césaire's *Cahier d'un retour au pays natal* and Camera Laye's *L'Enfant noir*.

Advanced French: Le Surréalisme

Prerequisite: Advanced French Language or department approval

Students begin this course with a viewing of Luis Buñuel's *Un chien andalou* to initiate the visual exploration of the surrealist movement. Students read the poetry of Apollinaire, the poetry and the movement's manifesto by André Breton, as well as writings by Jacques Vaché, Louis

Aragon, and Philippe Soupault. Students study the surrealist movement's implications in visual art, chiefly in the paintings of Magritte, Hans Arp, and Salvador Dalí. Students also study related topics such as: Dada, Freud's work with free association, and juxtaposed realities.

Advanced French: French Cinema

Prerequisite: Advanced French Language or department approval

As theoretician Ricciotto Canudo stated in *La Gazette des sept arts* of 1920, cinema has become the seventh art, as “rhythmic as dance, music, and poetry.” Due to Hollywood's dominance, many have forgotten that France is the birthplace of cinema. This semester-long course not only introduces students to significant works produced in France, but also develops the speaking and writing skills needed for image and discourse analysis. Films viewed, discussed, and studied include: *Ascenseur pour l'échafaud*, *Manon des sources*, *La haine*, *Jusqu'à la garde*, *l'Auberge espagnole*, *Amélie*, and *Le casse-tête chinois*.

Advanced French: The French Short Story: Tales and Fables from the French Canon

Prerequisite: Advanced French Language or departmental approval

As a semester-long literature survey course, this Advanced French course will serve as an introduction to classic short stories and fables drawn from the French literary canon, including fairy tales, satire, philosophical stories, etc. By studying biographies of the works' authors, students will gain a deeper understanding of the different time periods in which they were writing. Throughout their readings, students will learn to distinguish different registers and literary structures, as well as analyze the morals and themes behind the stories and their characters. Authors studied will include: Émile Zola, Voltaire, Charles Perrault, Guy de Maupassant, etc.

Advanced French: Survey of French Art: From Lascaux to Nouveau

In this advanced course taught solely in French, students study art and artists of France from the prehistoric to the contemporary. The course is taught chronologically starting

with the cave paintings of Lascaux. From there students move swiftly to the Italian influence on French painting, sculpture, gardens, and architecture with the École de Fontainebleau, Leonardo da Vinci at the court of François I, and France's two Medici queens to the neoclassicism of the 17th century, the court of Versailles. Students learn of the differences and reactions in the developments of the following movements of the 18th-20th centuries: Rococo, Baroque, Romanticism, Naturalism, the Barbizon School, Impressionism, Fauvism, Cubism, Orphism, Dadaism, Surrealism, and Nouveau Réalisme.

French Minor M

Prerequisite: French 4 or department approval

Based on authentic written and recorded material, this course will develop comprehension and oral skills by addressing a variety of topics. Students will hone fluency in the spoken language through discussion of contemporary issues in French culture with emphasis on increasing vocabulary and ease in the manipulation of grammatical structures. The course aims to enhance language skills, linguistic awareness, and appreciation of contemporary France and French-speaking countries. Oral participation is required, especially since students will have many opportunities to express opinions and give explanations in the target language in discussions and debates. Particular interests will be integrated into the topics presented in class where possible.

Spanish 1

This course serves as an intensive introduction to the Spanish language and quickly progresses from basic aspects of the language to more sophisticated forms of writing and speech. It is intended for students who have no prior experience with Spanish or who would benefit from a comprehensive review of the basics. Though introductory in nature, the pace of the course is quick and is intended to prepare students for Spanish 2 the following year. A large amount of vocabulary is presented and the present, preterit, and imperfect tenses (along with all their irregularities) are introduced and practiced. This course is open to all students

in Classes IX–XII who are beginning their study of Spanish outside of the curriculum sequence begun in Middle School.

Spanish 2

Pre-requisite: Spanish 1 or by placement

In addition to the review and consolidation of the grammatical structures acquired in earlier years of Spanish language study, the subjunctive and imperative moods are studied in depth. With the continued emphasis on the acquisition of active skills in writing and speaking, frequent short compositions and translations are required. Students must engage in short historical and cultural readings in which vocabulary and syntactical structures are contextualized.

Spanish 3

Pre-requisite: Spanish 2 or by placement

In this course, students begin more process oriented writing and speaking. The entirety of Spanish moods and tenses is reviewed and students are expected to use relative clauses, higher-order idioms, and a richer variety of vocabulary actively in both composition and oral presentations. Short literary selections in poetry and prose are introduced to contextualize the grammar and to introduce the richness of Hispanic culture and history.

Advanced Spanish Language and Culture

Prerequisite: departmental placement

In this year-long course, students hone their writing, speaking, listening, and reading skills at an advanced level. In the first semester, students explore a broad range of writing styles and genres while developing their critical writing and reading competencies. The reading list covers a variety of authentic literature (novels, short stories, poetry, news reports, magazine articles, etc.) Writing assignments require in-depth analysis and presentation of a particular point of view, while incorporating sophisticated idiomatic usage. In the second semester, students are exposed to a broad range of presentational speaking in Spanish (including radio, television, cinema, speeches, etc.). The course requires that students respond creatively and

effectively within a broad range of real-life situations while producing dialogues, skits, and formal presentations. The following advanced electives represent recent course offerings—one literature and one arts course are offered each year.

Advanced Spanish: Literature and Culture of the Hispanic Caribbean

Prerequisite: Advanced Spanish Language and/or departmental approval

This course is intended to introduce students to a Spanish speaking Caribbean World. The history, culture, and geography of the Spanish Caribbean have made it a distinctive and complex world area: the experiences of colonialism, slavery, and indentured servitude (“servidumbre por contrato”); emancipation, exile and emigration, cultural identity, gender and feminist writing, as well as polemics about cohesiveness and fragmentation of the region. In this semester-long course, we will study Spanish Caribbean literature and culture focusing on three main countries: Cuba, Puerto Rico, and the Dominican Republic. We will examine issues of colonialism and post-colonialism, slavery and emancipation, exile and immigration, race and cultural mix (“Mestizaje”). Students will become acquainted with major authors, themes, and literary movements that have emerged in the Caribbean. The course incorporates a range of media and employs an interdisciplinary perspective in exploring Caribbean prose, poetry, and drama. Some of the topics that will organize our discussions include: empire, revolution, sugar and labor, decolonization, storytelling and the oral tradition, re-visioning European traditions, ritual and carnival, transnationalism, diaspora, and exile, and constructions of race, class, gender, and sexuality.

Advanced Spanish: History of the Spanish Language

Prerequisite: Advanced Spanish Language and/or departmental approval

This semester-long advanced class focuses on the history and culture of the Spanish speaking world. We explore the different origins of the Spanish language, from the Roman occupation of Iberia, the invasions of Visigoths and the

influence of Arabic peoples through the Reconquista of 1492. We also examine the different registers of Spanish as manifested in Spain's colonies in the New World through modern Spain and Latin America. Of course, we must study the influence of indigenous peoples such as the Mayas, Aztecs, and Incas of pre-Columbian civilization as well as smaller groups such as the Mapuche and the Wayú, to name but a few. Students then have a full panorama of how the language has been transformed by its history and conquests. At this considerable overview, we study the diverse cultural and historical aspects of Latin American countries such as their independence, slang, sayings, movies, and series. To conclude we will study how English language influences the way that people learn Spanish as a second language, including the loan words and code-switching used for Spanglish speakers in the United States. The class also will discuss how Spanglish represents a culture in the country and in what contexts Spanglish is used.

Advanced Spanish: Power, History, and Love in Works of Gabriel García Márquez

Prerequisite: Advanced Spanish Language and Culture or departmental approval

In this semester-long course, students will study the fiction of Gabriel García Márquez, the author of: *La hojarasca*, *La mala hora*, *Los funerales de la Mamá Grande*, *La increíble y triste historia de la cándida Eréndira y su abuela desalmada*, *Crónica de una muerte anunciada*, and *Cien años de soledad*. Students will witness the evolution of the novelist while exploring recurrent themes such as dictatorship, love, and old age. Students will discuss and write about their readings in Spanish in order to appreciate the richness of Gabriel García Márquez's narrative and why he remains one of the greatest literary geniuses of his generation.

Advanced Spanish: El Bolero, El Tango, El Cante Jondo como forma popular de poesía

Prerequisite: Advanced Spanish Language and Culture or departmental approval

Since the dawn of civilization, poetry and music have enjoyed a symbiotic, mutually inspiring, and nourishing relationship. They

have always provided a source of strength, consolation, and inspiration to humans individually and to societies in general. The musical styles Bolero, Tango, and Flamenco, amongst other forms of musical expression, have been cultivating both musical and linguistic artistry since the middle of the 19th century. Poets like Federico García Lorca and composers like Manuel De Falla forged alliances to advance the evolution and spread of Flamenco. Ruben Dario and Amado Nervo, poets and writers from the Modernist movement, both offered inspiration to and sought inspiration from Bolero artists. In this course, students will immerse themselves in and explore the fascinating chronicles of Hispanoamerican culture in its most intimate expression, the songs of love and desperation that have resonated in people's hearts and intellect for over a century. Students will learn how these musical forms have influenced and been influenced by literature, art, and history.

Advanced Spanish: A Survey of Spanish and Latin American Art

Prerequisite: Advanced Spanish Language and Culture or departmental approval

In this semester-long survey course, students explore definitions of art as related to painting, sculpture, architecture, music, and crafts of various types. Topics vary from the Spanish baroque to cubism, surrealism, and the generación de la ruptura in South America. Examples of artists studied include : Velásquez, Goya, Dalí, Picasso, Botero, El Greco, and Miró. Students acquire the critical vocabulary necessary to discuss art in an academic setting with the continued emphasis on honing speaking and writing skills at the advanced level.

Advanced Spanish: The Short Fiction of Jorge Luis Borges

Prerequisite: Advanced Spanish Language and Culture or departmental approval

In this course, students explore in depth the short stories of Borges. Students read, analyze, and discuss Borges's collection titled *Ficciones*. Particular attention is paid to the writer's style and use of literary devices while honing their academic writing in Spanish. Towards the end of this course, students create their own short fiction in Spanish in imitation

of Borges, developing a short story while incorporating elements of this important Argentine writer's style.

Spanish Minor M

Prerequisite: Spanish 3 department approval

Based on authentic written and recorded material, this course will develop comprehension and oral skills by addressing a variety of topics. Students will hone fluency in the spoken language through discussion of contemporary issues in Spanish and Latin American cultures with emphasis on increasing vocabulary and ease in the manipulation of grammatical structures. The course aims to enhance language skills, linguistic awareness, and appreciation of the contemporary Spanish-speaking world. Oral participation is required, especially since students will have many opportunities to express opinions and give explanations in the target language in discussions and debates. Particular interests will be integrated into the topics presented in class where possible.

Chinese 1

This introductory course in Mandarin focuses on the fundamentals of reading, writing, and speaking. As with any beginning language course, the focus is on practical skills relevant to the daily lives of students. Students in this course should prepare themselves for a considerable amount of memorization, especially given the use of characters in writing. This course is open to all students in Classes IX–XII who are beginning their study of Mandarin outside of the curriculum sequence begun in Middle School.

Chinese 2

Pre-requisite: Chinese 1 or by placement

This course is a natural continuation of what was covered in Chinese 1. A significant amount of new vocabulary and characters is added to the curriculum. Authentic readings are incorporated in the instruction to allow students to contextualize their understanding of written and spoken Mandarin. This course may be repeated for a second year if a student requires more time to consolidate her familiarity with the material.

Chinese 3

Pre-requisite: Chinese 2 or by placement

In this course, special attention is given to the mastery of written Mandarin in a variety of social and academic situations. Authentic texts, including contemporary media used in everyday life in China, are incorporated to help students gain practical skills in Mandarin. In conversation, students are taught to speak more colloquially; furthermore, grammar becomes increasingly abstract.

Advanced Chinese 1 and 2

Prerequisite: Departmental approval

These advanced courses are designed for students who have achieved a high intermediate to advanced level of proficiency in Mandarin and wish to strengthen their spoken and written fluency. Students continue to develop their skills through readings, written practice, and discussions of a variety of topics as these relate to contemporary China and Taiwan. These topics range from the environmental, to the artistic, to pop culture, to the economic, to societal changes, etc. Students develop their skills through the study of authentic printed materials, recorded segments, or Chinese-language films. The student's work at both levels of study varies from the traditional written composition to oral presentations in the target language.

Chinese Minor **M**

Prerequisite: Chinese 3 and/or department approval

Based on authentic written and recorded material, this course will develop comprehension and oral skills by addressing a variety of topics. Students hone fluency in the spoken language through discussion of contemporary issues in Chinese culture with emphasis on increasing vocabulary and ease in the manipulation of grammatical structures. The course aims to enhance language skills, linguistic awareness, and appreciation of contemporary China and Taiwan. Oral participation is required, especially since students will have many opportunities to express opinions and give explanations in the target language in discussions and debates. Particular interests will be integrated into the topics presented in class where possible.

COMPUTER SCIENCE

Design and Digital Fabrication II **M**

This course is a minor elective available to students who completed Design and Digital Fabrication. Through the single semester class, students will navigate the iterative design process as they work to turn a spark of inspiration into a tangible artifact. Ideas are prototyped and refined through successive iterations. Students will have access to a wide range of tools and technologies as they meet the challenge of bringing their ideas into reality. The design process is supported by critiques, field trips, history discussions, and in-class activities aimed at broadening and deepening students' understanding of design, the considerations that inform it, and how it impacts their daily lives.

Programming Interactive Graphics **M**

Computers play an important role in almost every aspect of modern society. No longer are they limited to the arenas of business and research, but they have emerged as integral to the creation and generation of graphics. This semester-long course is an exploration of methods for creating computer-generated graphics. Students will build their repertoire of programming skills and develop techniques for algorithmic problem solving, as they use programming languages and other emergent technologies in the development of meaningful personal projects.

HEALTH AND WELLNESS

Personal Wellness **M**

This course explores the intersections of physical, mental/emotional, and social health in an effort to best prepare students for independent living and proactive self-care in the future. Topics discussed are determined by students and current issues in wellness for emerging adults. This course meets in the spring semester and is required for all Class XII students.

GOING BEYOND BARRIERS

Senior Financial Literacy Seminar **M**

As seniors begin to transition from adolescence to

adulthood, this course will focus on developing a variety of financial skills including, but not limited to, personal financial management, budgeting, and investing. Students will develop a basic understanding and knowledge of the effective use of these skills for their personal and professional journeys.

ART HISTORY

Advanced Art History

Advanced Art History is equivalent to a 100 level art history survey course, following a roughly chronological approach, beginning from global prehistory to global modernisms and contemporary art. This year-long, intensive course provides students with the opportunity to deepen their knowledge and understanding of specific art works, traditions and movements, to contextualize art making practices and to refine analytical skills in their reading of art.

Independent Study Program

The Independent Study Program (ISP) offers students in their senior year the opportunity to pursue an area of particular interest independently. In order to have the time necessary to examine a topic in depth, students are typically allowed to drop one major academic course in the spring term, or two courses, if they are enrolled in six major courses. Students attend a seminar at which they present an oral and written report on their progress each cycle. Projects vary in nature, from purely research-based to creative and entrepreneurial and culminate in a written paper that summarizes student learning or process and an oral presentation to the school community. The ISP committee evaluates students' work on a pass/fail basis, and students receive detailed final evaluations with feedback on every aspect of their projects.

CLASS IX–XII

VISUAL ARTS

CLASS IX

Ceramics M

Students will work to develop and hone skills—technical and artistic. Students will learn to articulate their aesthetic choices which will inform and create a personal visual language. The exploration of form, volume, texture, color, and scale will lead to both traditional and experimental ceramic pieces. There will be opportunities to create sculptural and functional pieces, utilizing both wheel-throwing and handbuilding methods. In conjunction with studio work, we will explore historical and contemporary ceramics through slide/video presentations, class discussions and critiques.

Darkroom Photography M

This is an introductory course in traditional black-and-white photography, as well as alternative processes. Students will learn to process and print from their own film. Particular emphasis is given to the creative application of focus, field of vision, and lighting.

Digital Imaging M

This course is oriented towards graphic design. Students will use Photoshop to edit and retouch digital images, create photo montages, fantastic landscapes, and self portraits, employing special effects and experimenting with type to create a portfolio reflective of their individual interests.

Experiments in Drawing M

Students will develop visual competence in representational drawing. This will include lessons involving tone, value, shape, form, and composition, as well as one- and two-point perspective. A variety of drawing materials, such as pencil, charcoal, and pastel, will be used.

Introduction to Painting M

Students will investigate the fundamentals of painting the still life, landscape, and how painting can be used as a vessel to argue one's point of view for social justice. They will work primarily from direct observation and reference imagery. Assignments will address composition, the representation of space and form, the modulation of color, and atmospheric perspective. Once students gain confidence with the medium, they will be asked to create a persuasive painting, using imagery, to lobby for a cause they feel strongly about.

CLASSES X–XII

Ceramics M

Students will work to further develop and hone skills—technical and artistic. Students will learn to articulate their aesthetic choices which will inform and create a personal visual language. There will be opportunities to create sculptural and functional pieces, utilizing both wheel-throwing and handbuilding methods. In conjunction with studio work, we will explore historical and contemporary ceramics through slide/ video presentations, class discussions and critiques.

Life Drawing M

Working from anatomical studies, wooden figures, and live models, students learn the fundamentals of representing the human figure in a variety of media, including graphite, charcoal, and colored pencil. This will include exploring proportion, anatomy, and various methods of creating value.

Painting M

In this course, the projects are initially teacher directed technical studies exploring the various principles and elements of two-dimensional art. As the students' capabilities mature, the projects become more self-directed and individualized.

Photography I M

Students master the use of the manual SLR through a series of assignments designed to address composition, proper exposure, and the creative use of depth of field. Additionally, students learn basic black-and-white darkroom skills and are

given a general introduction to the history of photography. Contemporary trends in the medium are also introduced through illustrated lectures, reading assignments, and visits to galleries and museums.

Photography II M

Pre-requisite: Photography I

This course builds on the foundation of Photography I. Students progress from assignments designed to master technical skills to ones that allow them to explore subjects of personal interest. In addition, they are exposed to a variety of traditional non-silver processes and introduced to the possibilities of digital imaging. Students are required to visit galleries and museums and to do one in-class presentation on a current exhibit. At the end of the semester, students submit a portfolio on a theme of their choice.

PERFORMING ARTS | DRAMA

CLASS IX

Acting I M

This semester-long course will be an intensive workshop in theater arts and will focus on voice and movement, improvisation and scene study. Students will be encouraged to participate in a fall production working either on stage or backstage. This course will also emphasize New York's role as a main resource to the theater community and includes attendance at Broadway and Off-Broadway plays.

Acting II M

Pre-requisite: Acting I

This semester-long workshop is an advanced scene study course where roles are assigned requiring more imagination, technique, and concentration. Emphasis will be on the actor, through study, rehearsal, and performance. Students will work on scenes in classical drama from Greek tragedy to Shakespearean comedy. This course is taught by a professional guest actor.

CLASSES X-XII

Fall Play **M**

Each fall, interested Upper School students have the opportunity to audition for and present a play or to work backstage. Students receive a semester of arts credit for their demonstrated commitment to the production, which includes regular attendance at rehearsals throughout the entire production period. Rehearsals are held three afternoons per week and on two weekends.

Spring Musical **M**

Each spring, interested Upper School students have the opportunity to audition for and present a fullscale musical or to work backstage. Students receive a semester of arts credit for their demonstrated commitment to the production, which includes regular attendance at rehearsals throughout the entire production period. Rehearsals are held three to five afternoons a week (depending on a student's role) and on three weekends.

PERFORMING ARTS | MUSIC

CLASS X

Music Appreciation **M**

This semester-long course is an elected part of the required Arts and Digital Design sequence in Class X. It explores music as a verb: active and always in the present, whether we are listening to Bach's Goldberg Variations or a brand new remix of an Ariana Grande song. Each class centers on a theme rather than a time period; themes range from folk songs to choral music, film scores to contemporary popular music. Through classroom listening and discussion, students learn to analyze music aurally and acquire the musical vocabulary necessary to examine contrasting styles and genres of music. Assignments include written reviews of various musical pieces and a final student-driven project. Previous guest speakers have included contemporary-classical pianist/composer Timo Andres and Tony Award-winning composer Jeanine Tesori.

ELECTIVES

In addition to the following courses, several extracurricular performance options are available, including chamber ensembles

(small group instrumental ensembles), and Bassless Accusations (the Upper School a cappella group).

CLASSES IX-XII

Upper School Chorus **M**

Upper School Chorus is a non-auditioned singing group that rehearses twice in the eight-day cycle. The ensemble performs at the annual winter and spring concerts as well as the Interscholastic Choral Festival. Healthy vocal technique, sight-reading, and listening skills are all developed. Repertoire is chosen from a wide variety of styles, periods, cultures, and genres. Students receive arts credit for participation in Upper School Chorus.

CLASSES X-XII

Upper School Chamber Chorus **M**

Prerequisite: Strong sight-reading and aural skills; must be any one of the following: (i) a member of Upper School Chorus or Chamber Music Ensemble, (ii) enrolled in a Composition class, or (iii) enrolled in one of the Guitar classes.

Upper School Chamber Chorus is an auditioned singing group that rehearses three times in the eight-day cycle. This highly selective group (14-20 singers) performs challenging repertoire, including Renaissance, Baroque, contemporary classical, and vocal jazz pieces that are suited to a small, advanced ensemble. The singers regularly perform around the city, participates in the state music contest, and tour both domestically and internationally. Students receive arts credit for participation in Upper School Chamber Chorus.

CLASSES IX-XII

Upper School Ensemble

Upper School Ensemble is open by audition to all string and select woodwind players. The class operates as a chamber orchestra, with opportunities for students to build their sight-reading skills and refine their playing technique within an ensemble. Repertoire ranges from classical to contemporary works with consideration of student input, and the ensemble performs at least twice each year. Students will receive fine arts credit for this class.

Upper School Guitar **M**

The Upper School Guitar program offers a series of courses designed to meet the needs and interests of all students. Beginning students develop a basic skill set and build techniques suitable to a wide range of styles. Subjects covered include learning basic chords and accompaniment styles, reading guitar tablature, and playing guitar introductions, riffs, and solos. Students with some previous experience learn more advanced chords and accompaniment styles, simple solo playing, and basic chord theory. Students with a strong background play music in a variety of styles to help refine and strengthen their technique. All interested players will be placed in an appropriate section after consultation with the instructor. Students receive arts credit for participation in any guitar class.

Music Theory **M**

Music Theory offers students the opportunity to learn fundamental components of music. Topics will include formation of major and various minor scales, identifying and using key signatures and time signatures, understanding harmonic progressions in various genres, an introduction to voice leading, improvement of aural skills, and theoretical components of non-western music. The curriculum will be further individualized to explore specific student's areas of interest or curiosity. Through homework exercises, listening activities, and class discussions, students will gain a deeper understanding of the "rules" that guide nearly all genres of music. The course will culminate in a student-selected final project that allows individuals to explore in greater detail a topic of their choosing.

Music Production and Composition **M**

This semester-long course will focus on writing, arranging, and producing music. While the course focus will be on music, skills acquired will be useful for podcasting, sound design, and engineering. These will be great tools to have for other classes in which audio knowledge is useful (i.e. creating videos, podcasts, soundscapes, etc.). Through a series of lessons and small projects, students will gain the skills to create various projects that rely on sound production and

editing. The intention is to offer a space where composition students can continue to explore their musical skills, while also teaching nonmusicians how to utilize various online programs like Soundtrap and Noteflight—allowing them to not only compose music, but also create projects that will be useful in other content areas. Each student will create one to five original pieces throughout the course. No previous knowledge in music is required; each student will be working at their own pace based on their level.

Upper School Ensemble

Upper School Ensemble is open by audition to all string and select woodwind players. The class operates as a chamber orchestra, with opportunities for students to build their sight-reading skills and refine their playing technique within an ensemble. Repertoire ranges from classical to contemporary works with consideration of student input, and the ensemble performs at least twice each year. Students will receive fine arts credit for this class.

Upper School Guitar **M**

The Upper School Guitar program offers a series of courses designed to meet the needs and interests of all students. Beginning students develop a basic skill set and build techniques suitable to a wide range of styles. Subjects covered include learning basic chords and accompaniment styles, reading guitar tablature, and playing guitar introductions, riffs, and solos. Students with some previous experience learn more advanced chords and accompaniment styles, simple solo playing, and basic chord theory. Students with a strong background play music in a variety of styles to help refine and strengthen their technique. All interested players will be placed in an appropriate section after consultation with the instructor. Students receive arts credit for participation in any guitar class.

Music Theory **M**

Music Theory offers students the opportunity to learn fundamental components of music. Topics will include formation of major and various minor scales, identifying and using key signatures and time signatures, understanding harmonic progressions in various genres, an introduction to

voice leading, improvement of aural skills, and theoretical components of non-western music. The curriculum will be further individualized to explore specific student's areas of interest or curiosity. Through homework exercises, listening activities, and class discussions, students will gain a deeper understanding of the “rules” that guide nearly all genres of music. The course will culminate in a student-selected final project that allows individuals to explore in greater detail a topic of their choosing.

Music Production and Composition **M**

This semester-long course will focus on writing, arranging, and producing music. While the course focus will be on music, skills acquired will be useful for podcasting, sound design, and engineering. These will be great tools to have for other classes in which audio knowledge is useful (i.e. creating videos, podcasts, soundscapes, etc.). Through a series of lessons and small projects, students will gain the skills to create various projects that rely on sound production and editing. The intention is to offer a space where composition students can continue to explore their musical skills, while also teaching nonmusicians how to utilize various online programs like Soundtrap and Noteflight—allowing them to not only compose music, but also create projects that will be useful in other content areas. Each student will create one to five original pieces throughout the course. No previous knowledge in music is required; each student will be working at their own pace based on their level.

PERFORMING ARTS | DANCE

CLASS X

Dance History **M**

This semester-long course is an elected part of the required Arts and Digital Design sequence in Class X. Through research and analysis, students in this course gain a sense of the development of dance styles throughout history.

ELECTIVE OFFERINGS

Upper School dance elective topics change on a rotating basis and include the following: Dance on Camera, Dance in

Unexpected Places, Dance and Politics, and Dance and Gender. These project-based electives give students the opportunity to study dance as part of their academic program. Since dance is both a physical discipline and a performing art, credit for a dance elective may be used for either physical education or art.

CLASSES IX- XII

Dance and Gender **M**

This course focuses on film and the moving body. We will explore the world of movement on-screen by looking at the development of this burgeoning art form. The infinite ways in which movement forms perception in the two-dimensional format will be investigated. The semester begins with a historical perspective on the merging of film and dance followed by showings of work ranging from insights into the human condition through pedestrian gesture to abstract choreography uniquely portrayed via the camera lens. Movement classes and viewings are supplemented with student projects. In creating individual screen dances students use editing and camera techniques. Kinesthesia, rhythm, and spatial awareness are a few of the movements for camera aspects that are applied to the film work.

PHYSICAL EDUCATION

CLASSES IX-XII

In the Upper School, students begin to learn where their interests lie, and our program exposes them to a variety of opportunities to find activities to which they can connect. The goal of our program is to provide students with a foundation on which to pursue lifelong fitness. Enjoyment of—and appreciation for—physical activity as part of a healthy lifestyle are the fundamental components of our curriculum. A variety of PE courses are offered each trimester within the three areas of focus described below. Over the course of the year, students must select at least one class from each area of focus; their fourth class may come from the focus area of their choice.

Mind/Body

Students will explore yoga, Pilates, meditation, myofascial-

release techniques, and other methods that explore the connection between the mind and body. Self-reflection and stress reduction techniques allow students to explore methods of self-regulation and build resilience.

Fitness

This area of focus encompasses many different forms of activity that aim to increase stamina, strength, and athleticism. The goal is to increase physical knowledge and wellness regardless of one's perceived ability, to identify and apply correct movement patterns, and to promote longevity through fitness. Students will use various technological applications to enhance their understanding. Courses offered may include running & jogging, power walking, strength training, Kickboxing, Cardio Jam, and Zumba to name a few.

Games and Sport

Students will participate in various games and team sports that foster teamwork, strategy, leadership, and comradery. Students learn the history, rules, and impact of these activities as it relates to life long fitness. Courses in this category may include badminton & racquet sports, cooperative games, and Lower School games. Participation in two sports fulfills a student's PE requirement for the year. Subject to departmental approval, students in Classes X-XII may also receive a PE exemption for a significant commitment to an outside athletic team or other athletic endeavor, including dance, by applying to our Alternate Athletic Credit Program.

ATHLETICS

Nightingale recognizes the value and importance of athletic participation. We offer a wide-ranging program of competitive teams for our students. Participation in two sports fulfills a student's physical education requirement for the year.

Fall Season

JV and Varsity Volleyball
Varsity Cross Country
Varsity Soccer
Varsity Tennis

Winter Season

JV and Varsity Basketball
Varsity Indoor Track
Varsity Squash
Varsity Swimming

Spring Season

Varsity Badminton
Varsity Lacrosse
Varsity Softball
Varsity Track and Field

LIBRARY

Research and reading are the twin pillars of the Upper School library program. In close collaboration with faculty, librarians support project-based contextual research integrated throughout the curriculum. Students learn traditional and emerging literacies, critically using and assessing a variety of information sources. Individual conferences and small group instruction provide practice in articulating research questions and investigating robust lines of inquiry. Students have access to a full suite of digital and print resources including peer reviewed journals, primary sources, historical newspapers and an extensive library of physical and digital books.

Through partnerships with local organizations, we offer a range of interdisciplinary opportunities that give students a chance to experience hands-on research and cultural enrichment. These projects are designed to empower students to explore New York City's cultural centers, literary events, and historical societies.

The library's diverse collection reflects the community's wide range of interests, perspectives, abilities and identities.

Student-driven book clubs and the Library Advisory Board give students leadership opportunities to engage in library programming and collection development. Our goal is to cultivate curious, independent, and agile thinkers who will thrive in a college environment, equipped with skills for life.

COLLEGE COUNSELING

The rigorous academic program at Nightingale ensures that each student who graduates from the school will be prepared to succeed in a challenging college curriculum. Each year all of Nightingale's senior class are accepted to selective colleges in the U.S. and abroad. College counseling begins with course selection in the Upper School to make sure that each student completes the courses required for college admissions and takes the necessary standardized tests. Throughout their Nightingale years, students are encouraged to challenge themselves in the classroom, explore and develop passion and expertise in their extracurricular interests, and to search for ways to contribute to the good of their community, both inside Nightingale and in the world beyond.

The process of identifying prospective colleges begins officially in the junior year. Students and their parents work with the college counselors to develop a list of colleges that are appropriate for each student. Individual and small group meetings with students focus on understanding the application process, researching colleges, and essay writing, as well as developing interview, self-assessment, and mature decision-making skills. The Nightingale-Bamford School is proud of the quality and wide range of colleges chosen by its graduates.

COMMUNITY ENGAGEMENT

At Nightingale, community engagement is integral to educating students as global citizens. By working with others in our neighborhoods, students understand the systems in our society and their own ability and obligation in standing side by side with those in need and those who work to eliminate societal needs through grassroots, non-profits, and governmental agencies. All students in Classes

X-XII must demonstrate a sustained service commitment and choose one organization to support each year with a minimum of four visits. In addition to this sustained commitment, students must participate in one cross-divisional event each year within our school community. At the end of the school year, students complete a reflection to demonstrate their level of engagement and learning from their service commitment.

OFF-CAMPUS STUDY

In addition to the off-campus study options listed in this section, other travel opportunities are offered periodically and tied directly to the curriculum. Class IX travels to London for a week every fall, and other trips have included travel to China, Cuba, Iceland, France, Italy, Spain, South Africa, the Dominican Republic, and Colombia. At the end of Class IX, students may apply for the Global Planning and Round Square Committee, which leads the Upper School in incorporating the Round Square consortium and global issues into the life of our community. Round Square is a consortium of more than 200 schools from 50 countries around the world and allows our students to develop global competencies, attend conferences and service projects, and participate in additional exchanges. Any student may apply for an exchange to a Round Square school regardless of her participation in the committee.

Through the Round Square consortium, Nightingale is planning virtual reciprocal exchange opportunities for our students at schools where our students can practice the modern languages that they have been studying in our classrooms including Spanish in Perú and French in Quebec.

International exchanges beyond those listed below may be arranged through the Round Square network.

CLASS X

- Australian exchange with Ascham School in Sydney, six weeks
- South African exchange with St. Mary's School in Waverly, Johannesburg, three weeks
- Swiss Semester in Zermatt, first semester

CLASS XI

- English exchange with St. Paul's Girls' School in London, two weeks
- High Mountain Institute in Leadville, CO, one semester
- Maine Coast Semester at Chewonki in Wiscasset, ME, one semester
- Mountain School of Milton Academy in Vershire, VT, one semester
- School for Ethics and Global Leadership in Washington DC or Johannesburg, South Africa, one semester
- School Year Abroad (SYA) in France, Italy, or Spain, full year (one semester is available if space permits)