

The Nightingale-Bamford School 2019–2020 Curriculum Guide

Introduction

The Nightingale-Bamford School curriculum reflects the school's belief that a traditional liberal arts education, adapted to the modern world, is the best preparation for college and a lifetime of learning.

The faculty and administration undertake continuous assessment and evaluation of the curriculum to assure sequence, structure, and creativity in the learning process. Modifications are made that reflect the latest research on how girls learn best, are responsive to meet student needs, and provide outstanding college preparation.

The Nightingale- Bamford School Mission Statement

The Nightingale-Bamford School inspires girls to go beyond barriers.

Our vision is for Nightingale students to be joyful learners who have the intellectual depth and the courage to be critical thinkers, compassionate citizens, and agents of their own lives; in doing so, we advance equity for the betterment of all.

To achieve this mission and vision, we will educate girls' minds and hearts by:

- Infusing their lives with meaningful relationships;
- Teaching them to value difference as a source of strength and means of growth;
- Empowering them to question the status quo with confidence, empathy, resilience, and reason.

Adopted by the Board of Trustees on November 2, 2017

Goals for Students

Our academic program is a liberal arts curriculum that evolves intentionally and continually to prepare students for today's world. Students develop a strong academic foundation, a life-long love of learning, and a deep trust in themselves as students and citizens of the world.

As part of the Nightingale-Bamford community, students are expected to:

1. Take ownership over their own work.
2. Learn to face challenges, be flexible, and overcome obstacles that come with building a strong academic foundation.
3. Discover who they are and learn to cultivate their strengths and talents.
4. Respect both the academic and personal interests of their fellow students and promote kindness.
5. Participate actively in the wider community life of the school.
6. Learn that making mistakes, asking for help when needed, and taking thoughtful risks are all fundamental parts of a valuable education, and valuing this in oneself and others.

Goals for Parents

The school expects to work in partnership with parents in support of the education of their daughter as she becomes increasingly confident and independent. This partnership is achieved when parents:

1. Trust the Nightingale educational philosophy and support the faculty as they set standards for both the intellectual development and the personal behavior of Nightingale students.
2. Establish schoolwork as a priority at home and provide time and space for study.
3. Stay well informed about the school program and their daughter's progress by reading all communications from the school and attending curriculum nights, teacher conferences, and other parent events.
4. Communicate with the school through the appropriate division head, whose role is to oversee each student's educational development.
5. Respect the school schedule by assuring their daughter's prompt and regular attendance.

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 girls 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, 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. 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 girls 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 girls 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. The English program is designed to prepare students to become fluent readers and writers, good listeners, and confident speakers. All students read a varied selection of literature including biography, history, poetry, folktales, and plays. English and reading are taught daily. The English curriculum provides regular practice in oral and written communication, including dictation, which develops phonetic decoding and auditory discrimination skills. Each girl has opportunities to perform and practice public speaking through poetry recitation and drama. Students work on creative and expository writing assignments, poetry, and journals throughout the Lower School. They are encouraged to focus on the process of writing and to revise their work. The English curriculum includes lessons in spelling, handwriting, vocabulary, grammar, and word processing. Reading is approached through phonetics and sight work using *Recipe for Reading* as a base, supplemented by many other materials. Dictation is a part of each reading lesson and approaches accurate spelling through phonic patterns. Students work in small groups designed to accommodate various learning approaches and styles. Reading is part of each child's daily homework.

KINDERGARTEN

Reading readiness is taught in small groups. Students participate in listening, writing, and oral language activities intended to help them build skills needed as developing readers and writers. Various activities are designed to reinforce the letter sounds in order to establish phonemic awareness. The girls keep a journal and work on a letter paper each week to encourage their creativity and independent thought. The D'Nealian style of handwriting emphasizes correct letter formation and sound-symbol relationships. Regular story time exposes the students to a rich program of literature.

CLASS I

The reading program fosters a confident attitude towards reading and pleasure in books. Reading skills are addressed with many different approaches including phonics, dictation, and sight vocabulary. The program emphasizes comprehension and oral reading with fluency and expression. Listening skills, handwriting, vocabulary, creative expression, journal writing, and spelling are integral parts of the program.

CLASS II

The goal in Class II is to increase and expand reading fluency with particular emphasis on non-fiction, poetry, novels, and plays. Daily dictation, incorporating punctuation, helps build a basic sense of sentence structure and provides practice in spelling rules and phonics. Vocabulary is studied in context. Creative and expository writing experiences encourage students to write freely and to develop both as readers and writers simultaneously. There are many opportunities for girls to share their achievements with others. Cursive handwriting is taught using the D'Nealian method.

CLASS III

The girls 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, recognizing rules and patterns. Using the novels read in class, they interpret the meaning of words using context clues and identify explicit and implicit ideas. The focus in English class is the solidification of basic grammatical skills in the context of longer, multi-paragraph written pieces. The girls work on planning, drafting, and revising. They develop their skills by writing compositions in a variety of genres, including poetry, persuasion, correspondence, memoir, and fiction.

CLASS IV

The reading program uses various novels to address the concepts of plot, setting, character development, figurative and symbolic language, as well as theme. Students are encouraged to infer the meaning of vocabulary and idioms from context. Expository and creative writing assignments, including poetry, are a regular part of the English program. Students learn to write and edit different kinds of paragraphs incorporating topic sentences. They also study how to plan, write, and revise a rough draft to produce a finished short essay.

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 *Contexts for Learning* and *Bridges to Mathematics*, the math program allows each Lower School girl to access material through various entry points. Nine 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.

KINDERGARTEN

With an emphasis on process and strategy, the Kindergarten mathematics program is designed to foster logical thinking and problem-solving skills, to establish a number sense, and to instill the idea that there are many ways to solve a problem. Girls study patterns, attributes, and addition and subtraction, and use a variety of manipulatives to reinforce their understanding of numeration. 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.

CLASS I

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, 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 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). Telling time to the hour and half-hour and determining elapsed time are components of measurement study.

CLASS II

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 as students develop strategies for solving word problems. Place-value materials are used to model numbers to 1,000 and build an understanding of number and digit values. Flexible and efficient strategies for problem solving are derived from student- and teacher-created models as problems increase in sophistication and numeric complexity. Through creating, sharing, and solving problems, students demonstrate facility solving multi-digit problems using multi-step operations. Careful attention is given to solidifying number sense and developing a conceptual understanding of multi-digit addition and subtraction. Manipulatives, among them tiles, geoboards, and student-created materials, 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.

CLASS III

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 demonstrated mastery of these concepts. *Contexts for Learning* units supplement *Bridges in Mathematics* as 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.

CLASS IV

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, including *Contexts for Learning*, provide instances for students to describe and represent patterns and functions, prove relations, and solve for unknowns.

HISTORY AND GEOGRAPHY

The history 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.

KINDERGARTEN

The focus of the curriculum is on building an awareness of the students' immediate environments, including family, occupations, school, the City, and traditions relating to different cultures. Topics vary from year to year according to faculty and student interests. Museum trips and visits to other New York City points of interest broaden the scope of classroom activities, as do visits by parents who share special expertise or information about their heritage.

CLASS I

Class I begins 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. We then study the fundamental needs of all humanity: food, clothing, and shelter. Class I learns how 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.

CLASS II

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. Each girl keeps a journal of writings and drawings to document her learning. The curriculum is brought to life with frequent field trips, hands-on projects, books, photos, and online media.

CLASS III

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 population statistics, the United Nations and the rights of the child, conservation and design thinking, strong female changemakers and role models, and democracy and civic participation.

CLASS IV

An extensive geography unit develops understanding of terms such as peninsula, archipelago, isthmus, and bay. Students study different landforms and gain familiarity with major land masses and bodies of water. After a study of states and capitals of the United States, they then take a comprehensive look at the history of early America. Students write research reports on different aspects of Native American and Colonial life. They also utilize what they have learned to plan, create, and dramatize a Colonial Fair. This interdisciplinary approach incorporates trips, projects, novels, and discussions of current events.

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.

KINDERGARTEN

Girls study air and weather, forces and motion, and the plant kingdom. They also spend time on scientific skill building. The laboratory program focuses on experiments, demonstrations, and observations. The girls work on many hands-on activities as individuals and in small groups. The science notebook is introduced at the beginning of the year.

CLASS I

Students investigate the three phases of matter, the rock cycle, geology, and the diversity of insect life. They will begin recording observations in their science notebook through age-appropriate methods such as diagramming and illustrating. Emphasis is placed on hands-on activities and learning how to utilize scientific terminology when articulating their observations. Expectations around use of the science notebook increase as the year progresses.

CLASS II

Students investigate motion and balance, the water cycle, and plant systems and life cycles. Students will refine observation techniques as they continue to develop an understanding of the scientific process through the use of their science notebooks. Students will begin formulating their own independent hypotheses and learn how to support their thoughts with data gathered during experiments.

CLASS III

Students focus on the four forces of flight and aviation, the properties of water, ocean zones and marine life, and conducting 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 leave the laboratory on a weekly basis to learn the methods of field study using the techniques modeled on those of field scientists. Students will also be expected to create different types of charts and graphs to depict information and expand their use of technical terms and vocabulary. Science notebook use will continue to develop as students are expected to support their conclusions with evidence gained through careful data analysis.

CLASS IV

Students study simple machines, celestial bodies, and environments and habitat ecology. Students will examine animal and plant behaviors and adaptations along with the consequences of human involvement. Students will conduct a study of the different types of simple machines with an emphasis on the physics and related mathematics principles around effort and work. There will be a simple machines project at the end of that unit that requires students to build their own machine using what was learned during the trimester. Development of the science notebook will continue as students learn how to isolate variables and examine factors that affect outcomes in experiments. A simplified version of the lab reports used in Class V will be introduced towards the end of the year.

TECHNOLOGY

CLASSES K-IV

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.

MODERN LANGUAGES

KINDERGARTEN SPANISH

Begun in the fall of 2018, the Lower School Spanish program provides classes in Spanish to members of the Kindergarten class and integrates Spanish into other aspects of the Kindergarten curriculum. The classes have an experiential focus, emphasizing oral expression. Topics are developed in relation to the learning goals of the Kindergarten experience, and students are encouraged to consider lessons from more than one linguistic perspective. The Lower School Spanish curriculum will be rolled out incrementally over the course of the next three years, culminating in a complete Lower School Spanish program in 2021.

CLASSES III AND IV

Until the Lower School Spanish program is fully implemented, modern language exposure for older students begins in Class III. Over the course of the third-grade year, students rotate through a trimester each of French, Spanish, and Mandarin. In Class IV, they then begin the formal study of one of those three languages, which continues in Middle School. The initial years of study stress pronunciation, basic vocabulary, culture, and communication.

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.

KINDERGARTEN

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.

CLASS I

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.

CLASS II

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.

CLASS III

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.

CLASS IV

Students develop skills and art vocabulary learned in previous grades. They directly observe art through the study of reproductions and museum visits. Students work with exciting materials and processes such as stone carving and lamp building. 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.

WOODWORKING

CLASSES I-IV

The woodworking program is structured to enhance spatial thinking and develop a student's ability to understand, manipulate, and construct three-dimensional objects. Projects use creative joining techniques and a wide range of materials including wood, stone, and clay. Students learn the safe and effective use of a variety of tools in the woodworking studio.

VISUAL EDUCATION

CLASSES K-IV

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.

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 girls to become responsible members of a cohesive group.

MUSIC

Lower School students attend music three times per eight-day schedule cycle in groups of approximately 15 students. Each music class consists of singing, movement, instrument playing, dramatic play, and improvisation. Students learn to take risks, listen intently, collaborate, and trust their inherent musical instincts. Music literacy and performance skills are taught sequentially using materials in the classical, folk, jazz, traditional, and world-music genres, fostering global awareness in the classroom.

In addition to her regular music classes, each Lower School girl has a once-a-cycle "Sing" period, where the entire grade comes together in the blackbox theater space. This meeting is used for whole-group singing and dancing, acting out folk tales, writing songs, and developing performance repertoire outside of dedicated music class time.

Lower School girls perform throughout the year in concerts and special assemblies, including the Lower School Winter Concert, Grandparents and Special Friends Visiting Day, and grade-level presentations. Students have the opportunity to study musical instruments and voice privately after school for an additional charge.

KINDERGARTEN

In Kindergarten, music class centers on developing the most basic and essential musical skills: 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 girls hone careful listening skills, differentiating between fast and slow, high and low, up and down, and speaking and singing voices. The Kindergarten class presents a program of music, dance, and poetry recitation in the spring of each year.

CLASS I

Class I students learn to read rhythms containing quarter notes, eighth notes, and quarter rests. Mi, sol, and la solfège syllables are taught with corresponding Curwen hand signs, kinesthetically anchoring pitch in order to enhance vocal accuracy. Class I girls explore a range of pitched and unpitched percussion instruments from around the world, drawing connections based on instrument material and technique. Part-singing is introduced through ostinatos, rounds, and partner songs.

CLASS II

Class II students expand their melodic vocabulary, reading and writing melodies on the musical staff using solfège syllables and Curwen hand signs. Musical independence is developed through part-singing and playing increasingly complex arrangements for voice and Orff instruments (xylophones, glockenspiels, etc.). Each February, Class II girls present a program of poems and original songs related to their year-long study of New York City, integrating music, dance, social studies, and English.

CLASS III

In Class III, music fundamentals are enhanced through a year-long exploration of repertoire in the universal pentatonic mode. The music literacy curriculum focuses on basic note values, treble clef note identification, solfège, tempo, and dynamics. All students learn to play the recorder, which is an accessible tool for note-reading practice, as well as basic instrumental technique. Unison choral singing builds pitch-matching skills and develops good vocal health. In the spring, Class III students study the music and dances of the Silk Road in relation to their social studies curriculum, culminating in a presentation that features intricate instrumental arrangements and original student choreography.

CLASS IV

In this capstone year, Class IV girls continue their study of the recorder, anchoring their note reading in the treble clef and performing increasingly complex instrumental and choral arrangements. The spiral 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 and the basic harmonic function of I and V chords. Class IV students additionally receive a formal introduction to the three “tracks” offered to Middle School musicians—composition, strings (violin/viola/cello), and guitar.

PHYSICAL EDUCATION

CLASSES K–IV

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. Student are introduced to bouldering and Parkour 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, Classes III and IV have a longer period that allows us to teach swimming at the 92nd Street Y.

The emphasis in Classes K–II is on teaching fundamental motor, manipulative, and sport skills. As the girls gain greater proficiency in Classes III and IV, they incorporate more complex and specialized skills into simple strategies in competitive games. Class I and Class IV

each present an annual physical education demonstration in the spring, focusing on the skills they have learned.

DANCE

CLASSES K–IV

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 both classical and modern 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.

LIBRARY

CLASSES K–IV

The Lower School library seeks to ignite imagination and a sense of wonder, laying the foundation for a lifelong love of reading. A vibrant information hub, the library is a place where students are encouraged to explore and be inspired while cultivating critical literacy skills. In addition to library texts, students are given opportunities to experience stories through poetry, theatre, art, and song. Lower School library classes are designed to develop the individual reading interests of each student, support the curriculum, and teach library 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 and technology integrators, 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.

HEALTH

KINDERGARTEN

Kindergarten students learn about basic hygiene, nutrition decisions, and accessing the nurse's office with guidance from their homeroom teachers. Throughout the year, students have several opportunities to work with the director of health and wellness on physical, social, and emotional health topics.

CLASS I

Class I health focuses on the mind and body. Mindful thinking and behavior are 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 study nutrition, learning about food groups and eating a colorful plate. With a focus on identity and relationships, stories, puppets, and role play are used to practice identifying emotions and communicating feelings and needs. Students also work on developing and expressing empathy for others.

CLASS II

Class II health focuses on the mind and body. Mindful thinking and behavior are reviewed and practiced throughout the semester. Class II students work on decision-making skills using a "stop, slow, go" model, and practice using this model with real-life health scenarios. Through the use of stories, puppets, and role play, topics addressed include healthful eating behaviors, gender, human development, medicine safety, mindfulness, relationships, and self-esteem.

CLASS III

Students in Class III health build 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. Class III health devotes plenty of time to understanding and caring for mind and body. Topics addressed include body systems, mindfulness, nutrition, and substance-use prevention.

CLASS IV

Class IV health focuses on body image, human development, and relationships. Students learn about puberty and reproduction with plenty of time devoted to understanding periods and self-care during menstruation, maintaining positive

body image during puberty, and navigating friendship changes and challenges. Safety during late childhood and preadolescence is addressed, and students develop skills to establish body boundaries and to access support from trusted adults.

COMMUNITY ENGAGEMENT

Community service has been a cornerstone of a Nightingale education since the school's founding almost 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. For example, Class I hosted a bake sale to support the All Soul's Friday Lunch (ASFL) as part of their unit on food. Students from Class IV teach their younger peers about ASFL based on their own experiences, as all Class IV students serve ASFL guests twice during the year. Other Lower School projects include designing, creating, and utilizing tools to clean up trash in Central Park (Kindergarten) and creating friendship bracelets for migrant children as part of the human rights curriculum in Class III.

HOBBYHORSE

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

- Brain Teasers
- Chess
- Cooking from Around the World
- Creative Fun with Photoshop
- Ice Skating
- Kids Engineer!
- Lacrosse
- Outdoor Sports
- Paper Capers
- Penguin City Swim
- Photography
- Puppets on Parade
- Riding
- Robotics
- Rollerblading
- Super Science Experiments
- Tennis
- Weekly Outdoor Adventure
- World Dance
- Yarn Fun/Knitting
- Yoga

Middle School Overview

The Middle School program, Classes V–VIII, addresses the special 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. Girls are helped to grow and develop academically, as well as morally, aesthetically, emotionally, and socially. It is our goal to encourage each girl to sample many kinds of activities, to learn where her 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 and strategies 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, girls are taught how to listen, follow directions, organize materials, keep track of homework assignments, manage their time, take notes, develop individualized study skills, and produce independent research projects. Students use a broad range of technological resources to support their learning and creativity in the classroom. 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.

Central to the Middle School, the advisory and dean program ensures that every girl 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 liaison between the student and her teachers, the advisor or dean supports and advocates for each girl, 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 formal social-emotional curriculum. Through the curricular component of the advisory program, each student learns how to advocate for herself, deepen her awareness of herself and others, develop her decision-making skills, engage responsibly with social media and technology, and cultivate healthy relationships, among other topics. Each student will also receive guidance in understanding her learning style and managing her responsibilities as she adjusts to an increasingly demanding program.

Academics are complemented by a rich array of offerings in art, drama, and music, with a focus on creativity and self-expression. The physical education curriculum and extracurricular athletic teams promote physical fitness, skill development, and sportsmanship.

Clubs are also an outlet for individual interests and talents. Trips, in conjunction with course work or to build teamwork, augment the program at every level.

ENGLISH

Love of reading and confidence in writing are key goals of the English program. Composition classes emphasize clear structure, vivid expression, and the logical development of ideas. Creative writing is also an integral part of the study of English in these years. Students read short stories, plays, novels, biographies, and poems, both canonical and contemporary. At all levels, the English Department believes in the value of interdisciplinary education, teaching students about books in their historical context and making comparisons to other art forms. Students are given the opportunity to write about a range of topics, both literary and political.

CLASS V

Students have five periods of English per eight-day cycle. The focus is on reading fiction and poetry and on the development of oral expression and writing skills. Class time is also devoted to vocabulary-building, spelling, grammar, study skills, and poetry recitations. The literature studied includes novels by Mildred O. Taylor, Gloria Whelan, Linda Sue Park, and Elizabeth G. Speare, with investigations into the historical background of the novels. The Class V English program dovetails with our visual education program, as students learn to write about images as well as stories (for example, examining the symbolism of portraits or composing poems based on paintings).

CLASS VI

Class VI students read and discuss a variety of fiction and nonfiction, including *Black Ships Before Troy* and Greek mythology, which is linked to their study of the classical world in Latin and history. Other texts include Julia Alvarez's novel *Before We Were Free* and William Gibson's play *The Miracle Worker*. Students learn to analyze and write creative responses to novels, short stories, and poems. They also begin to write formal essays

with thesis statements, practice peer review, and learn basic library research skills. Grammar study includes parts of speech and the rules of punctuation. Declamation and performance help the girls learn articulation and confidence in public speaking. Weekly writing workshop activities and visual education lessons round out the Class VI curriculum.

CLASS VII

"Coming of Age in America," an experience as varied as the individuals who live in the United States, is a key theme of Class VII English. Students read classics of Anglo-American literature, such as *The Outsiders*, *A Raisin in the Sun*, *The House on Mango Street*, and *Animal Farm*, and immerse themselves in several poetry units throughout the year. Students are introduced to the drama of William Shakespeare through a close reading of *A Midsummer Night's Dream*. In addition to experiencing Shakespeare's romantic comedy on the page, they work on scenes with a professional actor in a two-week acting workshop. Class VII students work on writing, grammar, punctuation, and vocabulary in conjunction with their reading.

CLASS VIII

The year begins with critical and creative responses to the summer reading book, *To Kill a Mockingbird*, before moving on to other coming-of-age texts from a variety of perspectives, including *Annie John* by Jamaica Kincaid and *This Boy's Life* by Tobias Wolff. Students also read *The Crucible*, *Macbeth*, and—during the narrative non-fiction unit—a selection of essays from writers both canonical and lesser-known as models for their own essay writing. Grammar and vocabulary are important elements of the course, and students have frequent writing assignments. An annual two-week acting workshop, taught by a professional actor, focuses on performing scenes from Shakespeare.

HISTORY

The Middle School history program builds upon the factual and conceptual foundations developed in the Lower School. Study skills are an ongoing priority and include note-taking, paragraph and essay writing, 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. Over the next three years, the department will be re-ordering the history sequence in Classes VI and VII in an effort to prepare students for a newly developed Civil Rights Trip to the Deep South in Class VIII. Details about the transition and the trip are below.

CLASS V

Ancient History

Students begin the year with a study of prehistory and archaeology. They study two ancient cultures—China and Egypt—and focus on geography and its effects, archaeological discoveries, and the chronology of events. The units also include the study of daily life, government, the development of language, religion, technology, and the arts. Critical reading and writing skills, research and note-taking, and oral participation are emphasized throughout the course. Field trips to both the ancient Chinese and Egyptian exhibitions at the Metropolitan Museum of Art complement class work. An interdisciplinary unit is devoted to providing a historical background for the reading of *Roll of Thunder, Hear My Cry* in English classes. In addition to readings, viewing documentaries, and in-class activities, students research and present projects on civil rights activists.

CLASSES VI AND VII*

World Religions

The world religions course covers the origins, beliefs, sacred literature, practices, historical development, and cultural contributions of the major world religions: Judaism, Christianity, Islam, Hinduism, and Buddhism. Students also examine the branches of these different religions in their historical context. Major themes of the course include the impact of religion on history and culture and the purpose and meaning of religion in ancient and modern societies. Special emphasis is given to analysis and discussion of contemporary issues and the intersection of religion and politics

in world affairs. Students are introduced to primary source analysis and continue to develop skills in critical reading, note-taking, and writing. Students complete a research project that complements the major themes and topics discussed throughout the year. Field trips to local places of worship enrich the students' understanding of lived religion and religious traditions past and present.

**As part of the transition to a new history sequence in the Middle School, Classes VI and VII will both take World Religions in 2019–2020. Beginning in the 2020–2021 school year, Class VII students will take the Democracy and Civics course described below.*

CLASS VII

Democracy and Civics: Greece, Rome, and American Government

The Democracy and Civics course focuses on democracy in the United States and in antiquity. Students begin with a study of the roots of that democracy—ancient Greece and Rome. For each of these civilizations, students examine geography and its effects on the development of society, as well as archaeological discoveries that help us to understand early cultures, daily life, religion, the arts, and government. Next, students explore their own democracy as they learn about the roots of rebellion, the Constitution, and the foundation of American government. The year culminates in a trip to Washington, D.C., where students will explore our democratic institutions firsthand and become advocates for a cause or issue that is meaningful to them. Critical reading, writing, research, and note-taking skills are reinforced throughout the year.

CLASS VIII**

American History

Class VIII American history is an introduction to United States history organized around three major themes: citizenship and the origins of political institutions, the quest for freedom, and the growth of America as a nation. Students examine these major topics through the local lens of New York City. In connection with the Class VIII trip to Washington, DC, students investigate the purpose and function of memorials and guide their classmates through some of our nation's most iconic memorials. The year-long theme of memorialization culminates in the crafting of

student proposals for their “own” memorials devoted to figures elided by history; this project involves research, analytical writing, design, and oral presentation elements. Throughout the course, emphasis is placed on the continued development of essential skills, including primary source analysis, historical writing, and public speaking.

****Class VIII will take the American history course described above in 2019–2020. During the 2020–2021 school year, they will take a modified version of this course that will include a December trip to Georgia, Alabama, and Tennessee to experience landmarks of the Civil Rights movement firsthand. In 2021–2022, the course will be replaced with American Freedom: Historical Memory and Human Rights, described below.**

CLASS VIII
American Freedom: Historical Memory and Human Rights

Class VIII builds on the foundation established in Class VII and is organized around the concepts of freedom and human rights. Using our founding principles as a lens, students will explore the complex history of race relations in America through a close study of the Civil War and Reconstruction periods and the Civil Rights movement. Students will complement these studies with an exploration of historical legacy and memory. In December, Class VIII will travel to Georgia, Alabama, and Tennessee to experience landmarks of the Civil Rights movement firsthand. Throughout the course, an emphasis is placed on the continued development of essential skills: research, primary source analysis, historical writing, and public speaking.

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.

CLASS V

Students continue their study of fractions and decimals and apply the arithmetic skills they have acquired to the solution of problems of various types. Multiplication and division of fractions are covered through context-based explorations. Order of operations, exponents, and addition and subtraction of integers are all introduced. Basic geometric concepts are explored, and measurements and percents are used in practical exercises.

CLASS VI

Students solidify the skills of arithmetic and integer operations and prepare for the more abstract thinking required by subsequent courses. Pre-algebra topics are introduced and algebraic thinking is practiced often. Students explore solving one-step through multi-step equations, reinforcing the algebraic properties of equality. Irrational numbers are introduced into equations. Two- and three-dimensional geometry, measurement, and graphical representation of data are explored.

CLASS VII

In this pre-algebra class, students transition to a more abstract approach to mathematics. A formal discussion of the properties of exponents is introduced. Students solidify their skills in solving equations and inequalities. Application of these skills to real-life problems is essential. Students explore in depth the application of ratios, proportions, and percents. Work with irrational numbers, operations with radicals, and an introduction into the graphical representation of linear functions reinforces the shift into abstract thinking. A formal study of algebra is incorporated into relevant topics. Fundamental concepts of three-dimensional geometry complete the year's work. Calculators are introduced in the second semester. Additional topics may include probability and statistics.

CLASS VIII

Algebra I

Students continue the formal study of algebra. They begin the year by reviewing the algebraic skills acquired earlier. Students then explore the solution to and graphing of various types of equations, including linear, quadratic, and radical. Operations with polynomials and systems of linear equations are also essential to the year's study. Throughout the course, attention is paid to the use of these skills to solve real-world problems, and time is devoted to learning to create mathematical models. Additional topics may include right-triangle trigonometry and probability.

Advanced Algebra I

Students embark on an advanced, formal study of algebra. They are expected to recall the skills acquired earlier, as time is not spent reviewing pre-algebra. Students delve quickly into the study of functions and 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 Advanced 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. Throughout the course, attention is paid to the use of these skills to solve real-world problems, and time is devoted to learning to create mathematical models. Additional topics may include right-triangle trigonometry, probability, and matrices.

SCIENCE

Middle School science courses stress the development of laboratory skills, problem solving, and an understanding and application of the scientific method. Starting in 2019–2020, the science curriculum in Classes V and VI will follow a two-year sequence, with a focus on human body systems.

CLASS V

The Science of Me

This course includes the study of fundamental concepts of chemistry and physics through the lens of the human body and the 11 major body systems. 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 and medical equipment. The goal of this course is to lay the groundwork for students' future study of interdisciplinary science in Class VI.

CLASS VI

Nightingale & Bamford: Special Agents Unit (SAU)

This course is a continuation of the study of the 11 major body systems through the application of forensic science. Students will conduct forensic investigations using the scientific method through evidence collection, measurement techniques, analysis of evidence, and the communication of conclusions. The goal of this course is to encourage students to take risks in their learning and embrace uncertainty. After all, not all cases are closed!

CLASS VII

Earth Science

This course is an introduction to the three major disciplines that relate to earth science: geology, hydrology, and astronomy. Students develop a deeper understanding of the forces that constantly affect and reshape the earth. They are also encouraged to develop a consciousness of their impact on the planet and ultimately their place in the universe. Topics covered include weathering, plate tectonics, earthquakes, volcanoes, paleontology, rocks and minerals, hydrologic cycles, the solar system, and galaxies. Activities, laboratory exercises, and assignments are designed to develop important analytical and critical problem-solving skills, and to emphasize the use of technology and the applications of concepts to everyday life.

CLASS VIII

Physical Science

This course establishes a foundation for both physics and chemistry via a thorough conceptual understanding of matter and energy. Topics studied include measurements, motion, forces, work, mechanical and thermal energy, states of matter, atomic structure, bonding, and chemical reactions. Building on the algebra skills acquired in Middle School and using interactive simulations, mathematical representations of scientific phenomena are explored, and analytical thinking and problem-solving skills are advanced. Through frequent laboratory activities, skills of observation, measurement/quantification, data visualization, data analysis, and scientific communication are developed and refined.

CLASSICS

LATIN

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.

CLASS VI

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.

CLASS VII

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.

CLASS VIII

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

CLASS V

French and Spanish courses are taught almost entirely in the target language. Students learn to spell and ask for 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. 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 are able 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. This course may be repeated for a second year if a student requires more time to consolidate her familiarity with the material.

CLASS VI

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. This course may be repeated for a second year if a student requires more time to consolidate her familiarity with the material.

CLASS VII

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 covered includes words particular to 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. This course may be repeated for a second year if a student requires more time to consolidate her familiarity with the material.

CLASS VIII

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.

MANDARIN CHINESE

CLASSES V AND VI

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.

CLASS VII

In MS Advanced Mandarin, 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.

CLASS VIII

This course begins with a review of vocabulary and grammatical structures from earlier years of study. Upon thorough review, students 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

CLASS V

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.

CLASSES VI–VIII

In small groups that meet four times per eight-day schedule cycle, students with a language 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

CLASS V

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, explore physical computing elements, examine engineering and robotics basics, create circuitry design projects, and learn how to use 3D modeling applications.

CLASS VI

Students continue developing their programming skills using block-coding platforms, microprocessors, and robotics. They conduct an in-depth examination of 3D design in which they explore several 3D design and modeling applications. Students build upon their technology skill set while learning Adobe Photoshop, iMovie, and other relevant programs. Digital-citizenship instruction includes a focus on digital footprint, social media, and cyberbullying.

CLASS VII

Students continue building their programming skills through an introduction to text-based coding and work with microcontrollers. During the year, they gain experience using the laser cutter through vector design applications. In addition, they build upon their technology skill set by gaining experience using Google Sites, Adobe Illustrator, and other relevant programs. Digital-citizenship instruction continues to focus on social media and cyberbullying.

CLASS VIII

Introduction to Programming

Over the course of the year, students are introduced to universal programming concepts and strategies. Students begin in a block-based programming environment, and—as they build and develop their skills—gradually transition to a text-based environment where they are introduced to the Python programming language. At all stages in the course, students engage in debugging and computational exercises designed to prepare them for more advanced programming experiences.

HEALTH EDUCATION

CLASS V

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. Topics addressed include body image, confidence, human development, nutrition, and personal safety.

CLASS VI

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 and abuse. To build upon prior knowledge of menstruation, students in Class VI explore period stigma as it exists in various parts of the world. Students take a personal safety course where they focus on establishing body boundaries, street safety, and handling challenges in peer relationships.

CLASS VII

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 dating relationships, sexual health, sleep hygiene, and substance use and abuse.

CLASS VIII

Students in Class VIII take part in a semester-long health course. Using data from Nightingale's most current community health survey, students will explore relevant health topics through the lens of decision-making, communication, and building/maintaining healthy relationships. Students will take a clear health-enhancing stand on an issue of their choosing in preparation for their Upper School years. Through this effort, Class VIII

students have the ability to demonstrate 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

The Middle School offers a wide variety of art courses, including 2D Art, Photography, Ceramics, Painting, and Video. In Classes V and VI, the school year is divided into trimesters as students rotate through three different art courses. In Classes 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.

CLASS V

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, using their own face as a point of departure.

CLASS VI

Ceramics, Painting, Photography

In the ceramics course, students will use hand-building processes, the pottery wheel, and a variety of glazing techniques to produce cups, plates, and vases. In the painting course, students investigate the fundamentals of landscape painting. They explore how to create deep space utilizing the principles of atmospheric perspective: relative size, relative detail, relative contrast, overlapping, and color. The girls will use acrylic paint on canvas. 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.

CLASS VII

Photography, Ceramics

Half of the photography course involves traditional and experimental processes in the darkroom, with an emphasis on light and composition. The other half is digital imaging projects in which students learn the fundamentals of scanning and altering their own images in Photoshop. In the ceramics course, students will use slab and coil techniques to produce sculptural containers, and they will use the pottery wheel to develop new skills and make small pots.

CLASS VIII

Video, Drawing and Painting

In the video course, students will work both independently and in groups to produce short-form videos. They will use both still and video cameras, apply editing techniques, work with special effects and sound, and learn pre-production and post-production skills. In Drawing and Painting, students will study the formal elements of line, space, proportion, and scale.

VISUAL EDUCATION

CLASSES V–VIII

The program in visual education incorporates works of art into English, history, classics, modern languages, technology, and art classes. Students learn to observe and analyze works of art and discuss them with reference to formal qualities as well as historical and cultural context. Through studying visual images, students learn art history and develop the ability to express and support their interpretations while learning to value the ideas of others. Students combine classroom work with visits to local museums and cultural institutions.

DRAMA

All Middle School students receive theatrical training with an emphasis on self-discipline, responsibility, teamwork, and confidence.

CLASSES V AND VI

Students in Classes V and VI take a trimester of drama and present a small play for their parents and the Middle School. In addition, Class VI presents a full-scale musical production in the fall with the boys from the Allen-Stevenson School.

CLASS VII

This class focuses on basic skills of musical theater and dance in preparation for Class VII's annual all-class musical production. In addition, girls may choose to perform in a dramatic production presented each spring with the boys from the Allen-Stevenson School.

CLASS VIII

This class works on diction and scene-study techniques. They present a Shakespeare play with boys from the Allen-Stevenson School in the fall. As an introduction to the Upper School, Class VIII students may participate in our Upper School spring musical.

MUSIC

ACADEMIC TRACKS

CLASSES V–VIII

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 composition, guitar, and strings, which are discussed in greater detail below. Because the curriculum is designed with a four-year approach, girls continue in their designated track throughout Middle School. When special circumstances arise, students may consult with the music department head about transferring tracks.

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), film music (Class VI), popular song (Class VII), and musical theater (Class VIII).

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, and simple melodies and riffs. 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.

PERFORMING ENSEMBLES

CLASS V

In addition to following one of the tracks outlined above, every student in Class V sings in a grade-wide chorus, where she continues 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.

CLASSES VI–VIII

Students in Classes VI–VIII may choose to participate in one of four optional performing ensembles, which will allow them to hone 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
MS Orff Ensemble

CLASSES V–VIII

Private Music Instruction

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

DANCE

CLASSES V AND VI

Students in Classes V and VI have one trimester of dance each year. The dance program is geared toward helping the girls increase their understanding of compositional structures and qualities in relation to dance, as well as integrating music and other art forms in the creation of dance pieces. They also expand their use of technology to research and create dances.

CLASSES VII AND VIII

Dance Track

All Class VII and VIII girls 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

CLASSES V AND VI

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 the components of fitness, cardiovascular endurance, muscular strength and endurance, and flexibility as a means to both educate and motivate the girls to become active both inside and outside of school. Students will also identify various ways physical activity can unite and strengthen communities through group projects.

CLASSES VII AND VIII**PE Track**

All Class VII and VIII girls follow either a dance or PE 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, such as volleyball, football, soccer, badminton, basketball, and team handball. Other fitness activities include yoga, High Intensity Interval Training (HIIT), and Zumba®. Cross-curricular connections with science and math are made throughout the year, as students learn concepts of exercise science, movement analysis, and strategy, as well as the history and culture of the activities in which they are participating. Students also learn how to interpret and use fitness assessment data to set goals and develop a lifelong fitness plan, as well as to use biomechanical analysis to identify and correct functional limitations and asymmetries within normal movement patterns. Through this multifaceted program, students gain knowledge, skills, and confidence to become and remain physically active for a lifetime.

ATHLETICS

Middle School teams provide every student at Nightingale the opportunity to compete, learn skills, grow, and have fun. All teams have a no-cut policy, allowing students to experience playing on a team and to develop the skills they need to compete at the varsity level in the Upper School. Students are expected to attend all scheduled practices and competitions. The students can participate in a wide range of sports that mirror the Upper School program.

CLASSES V AND VI

Athletics in Classes V and VI are designed to be an introduction to school sports. The goals for the program are to achieve wide student participation and to develop sport-specific skills in a modified environment. The team sport choices include soccer, volleyball, and cross country in the fall; basketball, indoor track, and swimming in the winter; and lacrosse, softball, and track and field in the spring.

CLASSES VII AND VIII

The athletic program in Classes VII and VIII continues to build on sport-specific skills while introducing the use of strategy in sports. Students are expected to attend all scheduled practices and competitions. Team sport choices include soccer, volleyball, and cross country in the fall; basketball, indoor track, and swimming in the winter; and lacrosse, softball, and track and field in the spring.

LIBRARY

CLASSES V–VIII

The Middle School library program builds on the foundation developed in the Lower School. With a focus on collaboration, critical assessment of sources, citation methods, effective note-taking, and the wise use of technology to access, synthesize, and present findings, 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.

Every student in Class V has library class for one trimester as students begin to make the transition from the Lower School collection to the Middle and Upper School library. In addition, librarians, classroom teachers, and technology integrators collaborate 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. Research pathfinders (LibGuides) provide in-school and remote access to the online catalog as well as an extensive range of databases and curated 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 museums 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. Dedicated service days in the Middle School allow students to delve into the causes and consequences of social injustices such as hunger and homelessness. 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.

Nightingale has a partnership with the Manhattan Children's Center (MCC), a school for autistic and other special needs children on the Upper West Side. All Class V students receive hands-on training and then visit the center twice in small groups to spend time with children who learn and interact differently from themselves. They teach the students at MCC about socializing, friendship, and communication, while bringing joy to their new buddies. Empathy, compassion, respect, and innovation are just a few of the skills that our students develop during their time at MCC.

Each member of Class VII participates in the Sweet Readers program at Nightingale once a week for six weeks during their advising period. Sweet Readers brings adults (elders) with Alzheimer's Disease together with Middle School students to explore and create poetry and art in museum galleries and elder care centers. The goal of the program is to discover the person behind the disease.

TRIPS

Class V: Team-building excursion in NYC
Class VI: Day trips integrated into the curriculum
Class VII: Washington, DC (overnight)
Class VIII: Washington, DC (overnight)*

*In 2020–2021, the Class VIII Washington trip will be replaced with a Civil Rights trip to Georgia, Alabama, and Tennessee.

EXTRACURRICULAR ACTIVITIES

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. All the students in Class VII present a musical in March; they also have the opportunity to join with boys at Allen-Stevenson in their spring production. Class VIII girls may audition for a Shakespeare play produced by the Allen-Stevenson Drama Department in the fall; they may also try out for 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, CAFE/Inclusivity Board, and Athletic Board (Blue/Silver)
- Community service projects at each grade level
- Debate (tournament team and club)
- Sweet Readers, Class VII
- Performing Ensembles, Classes VI–VIII (see page 23)
- Current Events Club
- Two in-school club periods per week; 25 clubs were offered in 2018–2019, including Knitting Club, Math Club, Greco-Roman Club, Hip Hop Dance Club, Baking Club, Art Club, Micro:Bits Club, and Robotics Club

ENRICHMENT

MS 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

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 five major courses each semester, and certain minor courses are required for graduation (see “Required Minors” on the next page).

Students may take five or six major courses in Class IX and generally take five thereafter, although they may apply for permission to take a sixth major in Class X. Minor courses may not be combined to take the place of a major.

PLEASE NOTE: Within this Curriculum Guide, a blue “(m)” following the course name indicates that a specific course is a minor. All courses without that designation are majors.

HONOR CODE

At the beginning of each school year, Upper School students are encouraged to sign the following pledge, which was developed by Student Council in 1992 and revised in 1998 and 2000.

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

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 in 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	4 years
SERVICE LEARNING	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**

* This four-year sequence includes Class IX Agents of Change, Class X Leadership, Class XI Public Speaking, and Class XII Essential Questions of the Mind and Heart: A Capstone Course on Questions in Psychology, Philosophy, and Ethics

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

ENGLISH

CLASS IX**Class IX English**

To begin this year-long course, students discuss and write about Chimamanda Adichie's essay "We All Should Be Feminists." In preparation for the Class IX trip to London, they read Shakespeare's sonnets and *Romeo and Juliet* and prepare docent talks on Renaissance and Baroque paintings to be presented at the National Gallery, London. After reading Moisés Kaufman's *The Laramie Project*, student teams write and present their own versions of *The Verona Project*, a collaborative theater investigation into Romeo and Juliet's hometown. Lillian Hellman's play *The Little Foxes* opens a window onto the greed and excess of America's first Gilded Age. In the second semester, students immerse themselves in an interdisciplinary study of the Harlem Renaissance, from the art of Archibald Motley, James Van Der Zee, and Aaron Douglas to the literature of Nella Larsen, Langston Hughes, Zora Neale Hurston, and others. In the late spring, they read Gish Jen's novel *Typical American*. Considerable time is devoted to expository writing, effective oral expression, and standard English grammar.

CLASS X**Class X English**

Texts in the fall semester focus on the theme of transformations: Shakespeare's *Twelfth Night*, Ibsen's *A Doll's House*, Fitzgerald's *The Great Gatsby*, and Ali Smith's *Girl Meets Boy*. The semester ends with a month-long study of the Romantic movement in Europe, as students read the poetry of Wordsworth, Byron, Shelley, Keats, and Blake and survey Romantic-era paintings by Turner, Géricault, and Delacroix. The second semester begins with a six-week intensive writing workshop. The year ends with a study of two novels: Zora Neale Hurston's *Their Eyes Were Watching God* and Bharati Mukherjee's *Jasmine*.

CLASSES XI AND XII

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.

CLASS XI**Junior English**

This required one-semester 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 exchange. 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.

CLASS XII**Senior English**

This required one-semester course ranges across literary genres to explore themes of dismantled stereotypes, evolving gender roles, and love in the twenty-first century. Current readings include Claudia Rankine's lyric essay *Citizen*, William Shakespeare's comedy *All's Well That Ends Well*, William Faulkner's modernist novel *As I Lay Dying*, Emily Dickinson's poetry, and two contemporary plays, Penelope Skinner's *The Village Bike* (2015) and Lynn Nottage's Pulitzer Prize-winning *Sweat* (2017). Students write major critical papers as well as creative responses to the literature and the issues raised. Thanks to Nightingale's Drama Grant, they often attend and write reviews of a Broadway or off-Broadway play. Each student presents a final interdisciplinary project that explores thematic connections between a Dickinson poem and one other literary work from the term.

SPRING SEMESTER OFFERINGS

CLASSES XI AND XII**Advanced English: Literature of Witness**

How might art respond to unspeakable horrors when words are wholly inadequate to the task? Faced with trauma on a national or global scale, can one create an honest literature of witness that affirms the meaning in life and the value of living? This course will feature fiction, memoir, essays, drama, and poetry produced in response to four global traumas of the twentieth century: World War I, the Holocaust, the Vietnam War, and the AIDS Crisis. A brief consideration of 9/11 will serve as a twenty-first-century coda.

CLASSES XI AND XII**Advanced English: Shakespeare's Tragedies**

In classic tragedy, a hero or noble figure of title, power, and position makes a fatal error in judgment caused by ignorance or some moral shortcoming. This error leads to the hero's downfall, which causes widespread pain and suffering. Before the end, however, the hero has a moment of self-understanding. How does Shakespeare borrow from this classic model, and how does he transform it? Texts will include *Macbeth*, *Coriolanus*, *Hamlet*, and *King Lear*.

CLASSES XI AND XII**Advanced English: Masterpieces of Modern American Literature**

From Hemingway's *The Sun Also Rises* to Faulkner's *The Sound and the Fury* to O'Neill's *Long Day's Journey Into Night*, this course will explore some of the very best in twentieth-century American literature—an essential must-read list for every well-read student. 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 novel from among several options for a final reading and writing project.

CLASSES XI AND XII**Advanced English: Outlaws and Outliers: Transgressing Sexuality and Gender in Modern Literature**

This elective will consider works from the early twentieth century to our own time that explore the sexual and gender norms and identities of Western society that are currently being challenged or rethought. Gay, straight, and transgendered experience are the subjects of the fiction and drama that will be studied, along with any current films or plays that are pertinent to this theme. The readings will include George Moore's *Albert Nobbs*, Colette's *Chéri*, Vladimir Nabokov's *Lolita*, Tony Kushner's *Angels in America*, Moisés Kaufman's *The Laramie Project*, and Taylor Mac's *Hir*.

CLASSES XI AND XII**Advanced English: Homer's *Odyssey* and Modern Re-imaginings**

The beginnings of Western literature are to be found in the ill-fated judgment of Paris, the beauty of Helen, the rage of Achilles, the smoldering ruins of Troy, and a hero's 10-year journey through heartache and loss. Students in this course will read the story of Odysseus's efforts to return home, and then look at several modern retellings of this classic text. Texts are likely to include Emily Wilson's recent translation of *The Odyssey*, excerpts from James Joyce's *Ulysses*, Derek Walcott's *Omeros*, Margaret Atwood's *The Penelopiad*, and Louise Glück's poetry collection *Meadowlands*.

CLASSES XI AND XII**Advanced English: Great Women Poets**

This course will consider a range of voices, forms, and styles across the poetic canon. Our exploration of the lyric will begin with Sappho and end with influential poets writing today. Readings will include works by Emily Dickinson, Gertrude Stein, Sylvia Plath, Elizabeth Bishop, Alice Oswald, and Brenda Shaughnessy. We also will study texts by women who have commented on literary history, including Helen Vendler, Mary Ruefle, and Zadie Smith. In considering the craft of poetry, we will develop our skills as readers and practice writing our own literary reviews.

HISTORY

CLASS IX**Early Modern World History**

This course introduces students to the concepts and critical vocabulary needed to discuss and debate major themes in world history during the early modern era (1400–1750). Are there signs or markers of a truly modern era, or did traditional ways of life persist? We take a comparative approach to the study of Europe, Africa, Asia, and the Americas by exploring the political, economic, and cultural trends that characterize this period. Primary sources complement the textbook so that students learn how to critically analyze ideas and images. Special attention is paid to teaching students how to write persuasive essays and research papers.

CLASS X**Modern World History**

Many of today's most controversial issues, such as the state of Africa, the crisis in the Middle East, and America's rise to superpower status, have their origins in topics we discuss in Class X history. We begin the year by examining the Enlightenment, the Atlantic and Industrial Revolutions, and the emergence of a distinctly modern society in Western Europe. We then explore the growing capacity of these modern societies to exert influence and control over the rest of humankind through empire or less formal means like diplomatic pressure, economic exploitation, or missionary activity. The course culminates in an investigation of twentieth-century totalitarian regimes, the global impact of the two world wars, and decolonization and globalization in the contemporary world. Students analyze primary sources on a daily basis and continue to develop their essay-writing and research skills.

CLASSES XI AND XII**United States History**

United States history introduces students to major issues and themes from European settlement through the end of the Cold War. Special emphasis is given to the development of political institutions and traditions, interactions between people with competing interests, the shaping of American identity, and the role of the historian in how we view the past. To accomplish this, we rely heavily on primary sources, incorporate social and cultural history, and consider historiographic changes in interpretation. Students will learn

advanced research methods by completing a year-long project requiring archival research at the New-York Historical Society.

ELECTIVE OFFERINGS

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

CLASSES XI AND XII**Economics Now**

Economics Now is a general introduction to the study and practice of economics and its relevance in our world now. The course consists of four main units: Introducing Economics, Economic Policy, the Financial System, and the American Economy Now. We begin with Introducing Economics, where we discuss the essential principles of economics and what economists do. Economic Policy deals with the basics of monetary and fiscal policy, beginning with the ideas of John Maynard Keynes, moving to the Federal Reserve and such issues as taxes, unemployment, and the national budget. The Financial System discusses our country's financial institutions and financial crises in history, with a particular focus on the Financial Crisis of 2008 and the government's response to it. The American Economy Now covers a spectrum of issues, from Internet commerce and automation to economic inequality and maternity leave. Students read articles and essays from a broad spectrum of sources, all of which illuminate how economic issues are present everywhere!

CLASSES XI AND XII**New York City in History**

New York City is the largest city in the United States—its population is more than double that of Los Angeles, the second largest city. More than 176 languages are spoken in NYC public schools, and its GDP is roughly the same as that of South Korea. Yet some say New York City is not a city at all. Rather, it is a collection of neighborhoods, each with a character all its own. This course will use the tools of urban historians to better understand the economic and institutional foundations for New York's emergence as a premier city. Special emphasis will also be placed on distinctive social and cultural patterns of urban life, including immigrant communities, Central Park, department stores, mass transportation,

Coney Island, skyscrapers, and urban planning. Walking tours and a research project will help students take advantage of our location and get to better know New York City from the ground up.

CLASSES XI AND XII

Presidential Politics in Historical Context

To understand the history of United States elections and the evolution of the presidency is to understand the fabric of America and the social, political, and economic forces that have galvanized its citizens and leaders to action. Students will gain a comprehensive understanding of the American electoral system and presidency with immediate real-world application. The course will teach the history and structure of presidential campaigns and political parties and consider voting rights and barriers, political ideology and rhetoric, and the role of campaign finance, polling, and media. Students will explore case studies in presidential leadership, examining how presidents navigated the unique challenges of their time. Additional immersive experiences include guest speakers, field trips, strategy and design thinking projects, and a personalized research paper.

CLASSES XI AND XII

Modern Latin America

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.

MATHEMATICS

CLASS IX

Geometry

This course approaches geometry from Euclidean, coordinate, and transformational perspectives. Inductive and deductive reasoning, as well as the development of formal proofs, are taught throughout the year. Topics studied include properties of polygons and circles, similarity and congruence, constructions, geometric probability, areas of plane figures, and surface areas and volumes of solids. Algebraic skills are reinforced and enhanced in the context of geometric investigations. *The Geometer's Sketchpad* and *Geogebra* are used as illustrative tools.

CLASS X

Algebra II

Linear equations and inequalities are reviewed prior to a thorough study of systems of equations and inequalities. Students are introduced to matrices as tools in the solution of systems. Work with quadratic functions is extended to polynomial functions of higher degree, and students are introduced to exponential and logarithmic functions. Students also work with radical and rational functions. Additional topics may include probability and conic sections.

CLASS XI

Precalculus

This course is designed to prepare the student for college-level calculus. Polynomial, rational, exponential, logarithmic, and trigonometric functions are analyzed in depth. Extensive use of graphing calculators assists in analyzing translations and scale changes, as well as application of these functions. The course may conclude with a study of sequences and series and/or an intuitive approach to limits and continuity.

CLASS XII

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.

CLASS XII

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.

CLASS XII

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.

CLASSES X–XII

Probability

This semester-long course covers probability, which is the mathematical study of random events and uncertainty. Probability appears, for instance, in biology (genetics), physics (statistical mechanics and quantum mechanics), engineering (signal processing), and statistics, and it can be used to model random processes that change over time such as stock prices and temperatures. In this class, the students will develop and investigate the theory of probability and use this to model random events and processes in the real world.

CLASSES X–XII

Statistics

This semester-long course covers describing and representing data by using density curves, probability modeling, and linear regressions. Students will make extensive use of technology as a tool for helping to investigate, interpret, and describe large sets of data.

CLASSES XI AND XII

Advanced Statistics

Departmental permission required

Advanced Statistics is a year-long course that introduces students to four major themes in statistics: exploratory analysis of data, planning and conducting a study, probability, and statistical inference. Students will develop an understanding of the difference between association and causation when investigating the relationship between variables. They will examine both sampling and experimentation as methods of collecting data. Finally, they will learn how to select and defend a reasonable model for data. Students will make extensive use of technology as a tool for helping to investigate, interpret, and describe large sets of data.

INTERSCHOOL MATH COURSES

Nightingale is a member of Interschool, a consortium that also includes Brearley, Browning, Chapin, Collegiate, Dalton, Spence, and Trinity. It offers courses and programs that change from year to year depending on student interest. All Interschool courses require school permission.

CLASSES X–XII

Collaborative Problem Solving (m)

In this year-long course, students work together on one challenging problem over an extended period of time. Topics covered include combinatorics, number theory, geometry, algebra, and inequalities. Students will gradually acquire sophisticated problem-solving skills and a knowledge base that will allow them to tackle the types of problems that appear in more challenging math contests.

CLASSES X–XII

Game Theory (m)

Game Theory is the mathematical analysis of conflict and cooperation, where “players” can include individuals, corporations, governments, or even nature. The theory attempts to predict, explain, or recommend courses of action in situations where one player’s success depends on the decisions of all players. The theoretical analysis of such situations is taught through applications in economics, politics, business, evolutionary biology, religion, philosophy, computer science, and sports, as well as through games such as poker and chess.

SCIENCE

As the core scientific disciplines, biology, chemistry, and physics are all year-long, lab-based courses that develop a broad foundation of essential knowledge and skills.

CLASS IX**Biology**

Biology is the study of all forms of life and involves an understanding of increasing levels of biological organization from organic molecules and cells to organisms and ecosystems. Major themes applied in this course include the relationship between structure and function, energy transfer, continuity and change, and interdependence in nature. Specific topics studied include cellular energetics, genetics, evolution, animal physiology, and ecology. The laboratory component reinforces major concepts and builds skills, and the inclusion of current events encourages students to apply the discipline to their everyday lives.

CLASSES X AND XI**Chemistry**

*Prerequisite: One lab science
(Biology recommended)*

The principles of atomic structure, matter-energy relationships, stoichiometry and the mole concept, heat, bonding, solution chemistry, and equilibrium are among the topics studied in this course. Students develop an ability to view matter from multiple perspectives. Laboratory skills, problem solving, and independent analysis are emphasized throughout the year. Successful completion of chemistry is expected for enrollment in all Advanced science courses.

CLASSES XI AND XII**Physics**

*Prerequisite: One lab science
(Chemistry recommended)*

This is a non-calculus first-year physics course open to all students who have successfully completed at least one lab science. It stresses conceptual understanding, problem solving, and hands-on laboratory experience. Students will explore units in linear motion and non-linear motion, energy, electricity, magnetism, light, and optics.

ADVANCED COURSES

Departmental permission is required for all Advanced science courses.

CLASSES XI AND XII**Advanced Physics**

Prerequisite: One lab science (Chemistry recommended)

This is a non-calculus first-year physics course that is more challenging than the standard physics offering. The expectation is that students will acquire and then demonstrate mastery of fundamental motion, force, energy, and charge concepts while applying them in the study of a range of topics. Integrated problem solving across multiple units, conceptual understanding, and laboratory experiences are emphasized as vital components of this course. Students may not enroll in this class after completing the standard physics course.

CLASS XII**Advanced Physics I: Modern Physics**

Prerequisite: Physics or Advanced Physics

This one-semester course is an exploration of key discoveries leading to the development of modern physics. It will include topics that are not studied in the regular physics and Advanced physics courses, such as atomic structure, the wave-particle duality of light (and everything), quantum mechanics, nuclear physics, special relativity, and general relativity. There will be some experiential learning activities with opportunities taken to examine how modern physics topics intersect with other subject areas such as statistics, history, geology, astronomy, and public health. The student experience in modern physics will be a deeper dive into more complex and theoretical concepts than the first-year physics courses offer.

CLASS XII**Advanced Physics II: Topics in Calculus**

*Prerequisite: Physics or Advanced Physics;
Enrolled in Calculus A or B*

This one-semester course explores select topics in physics applying calculus concepts such as limits, differentiation, optimization, integration, and more. Offered in the second semester, it will build upon physics concepts learned in earlier courses and go beyond the treatment of linear motion that occurs in all levels of calculus. This course provides an

opportunity for students who may be considering a major in physics or engineering to get exposure to a range of topics in classical mechanics, including a thorough consideration of rotational mechanics (not currently taught at any level) and the possibility of revisiting electricity and magnetism topics, even modern physics topics, with calculus. Students will be given some choice in the selection of topics that we will ultimately study, and the focus is on the integration of physics and calculus concepts. The student experience in this course will be one of greater depth in study of topics (rather than breadth) with more complex problem-solving building upon skills they are learning in their calculus courses.

CLASSES XI AND XII

Advanced Biology I: Biochemistry

Prerequisite: 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.

CLASSES XI AND XII

Advanced Biology II:

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 examine 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.

CLASSES XI AND XII

Advanced Chemistry I: Analytical Chemistry

Prerequisite: Chemistry

Analytical chemistry is the branch of chemistry dealing with measurement, both qualitative and quantitative. This 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.

CLASSES XI AND XII

Advanced Chemistry II: Organic Chemistry

Prerequisite: Chemistry

Organic Chemistry is the study of compounds containing carbon. This semester-long 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.

ELECTIVE OFFERINGS

CLASSES X–XII

Astronomy

This semester-long course presents an overview of astronomy with a focus on our solar system and the life cycle of stars. Topics studied include positioning, time keeping, constellations, the planetary system, the sun, stellar evolution, neutron stars, and black holes. Students will be expected to do some math-based problem solving, compose a paper, and give a presentation to peers as part of a long-term research project. Additional class time may be required for trips and evening observations.

CLASSES X–XII

Public Health I: An Introduction to Public Health

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.

CLASSES X–XII

Public Health II:

Social and Behavioral Factors in Health

Prerequisite: Biology; Public Health I is encouraged, but not required

This semester-long course will take a deep dive into social and behavioral factors of health in an attempt to answer the question: do people choose their own health? Topics addressed include: an examination of the leading causes of death and their underlying behavioral influences, violence from a public health lens, a review of interventions and behavior modification models, and an analysis of how socioeconomic status and demographic variables (race/ethnicity, zip code, immigration status) can be used to predict health outcomes. Students will employ case studies and biostatistics from a national and global lens.

CLASSES X–XII

Introduction to Bioethics

Prerequisite: Biology

This semester-long course will begin by establishing conceptual guidelines used in the bioethics field that promote careful thinking about difficult cases. We will explore and learn to apply four key questions used by ethicists to clarify the issues required to make ethical decisions. Students will learn how to offer valid reasons for ethical choices and also how to handle varying opinions. We will then move on to explore ethical issues through a series of case studies. As we look at specific cases, we will review the science involved and at times spend meaningful class time reviewing biological concepts critical to understanding the cases. Case studies will cover a broad range of topics in biomedicine, including genetics, neuroscience, clinicians' professional responsibility in communicating with patients, new models of health care delivery, including direct-to-consumer companies, and issues in human subject research. All of the cases are designed for a high school audience and to encourage the practice of reasoning, reconciling competing values, and bringing theory to bear.

CLASSES X–XII

Science Seminar (m)

In this year-long course, students develop advanced scientific literary and communication skills. Students present a talk on a current topic of interest from a scientific lens or on an area previously researched in a lab or field setting. Exposure to outside speakers and attendance at educational programs enhance the experience. This class meets twice per eight-day cycle and is graded on a pass/fail basis. Science Seminar does not fulfill the science requirement and instructor approval is required to enroll. Students accepted into the Independent Science Research Program are required to enroll in the course.

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.

CLASS IX

Beginning 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.

CLASSES IX AND X

Intermediate Latin

The course is a continuation of Beginning 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. In the spring term, the class will read excerpts from such authors as Catullus and Ovid, and will study these texts within the socio-political and literary context of the Late Republic and Early Empire.

CLASS IX**Latin II**

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.

CLASSES X AND XI**Latin III**

This course will provide an overview of Latin literature and will study selections from prose (Cicero and Caesar) 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 Latin Epic course.

CLASSES XI AND XII**Advanced Latin: Latin Lyric or Latin Epic**

Latin Lyric and Latin Epic are offered in alternate years. Latin Lyric will be the Advanced Latin course offered in the 2019–2020 school 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.

CLASSES X–XII**Elementary Ancient Greek I (m)**

This fall semester course introduces students to the foundational building blocks of Ancient Greek: the alphabet along with some basic vocabulary and grammar. The course will consist of readings and exercises that aim to help students learn the language of Homer, Sappho, Sophocles, and Plato. Cultural, historical, and linguistic themes will also form an important part of this course. The course is taught in English and does not presuppose any knowledge of Ancient Greek.

CLASSES X–XII**Elementary Ancient Greek II (m)**

Prerequisite: Elementary Ancient Greek I or the equivalent

This spring semester course is a continuation of Elementary Greek I. Students will expand their knowledge of the language through readings and exercises, focusing on grammar and enriching their Greek 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.

MODERN LANGUAGES

FRENCH

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 who have no prior experience with French 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; the elementary concepts of verbal mood are introduced by the end of the year. This course is open to all students in Classes IX–XII who are beginning their study of French outside of the curriculum sequence begun in Middle School.

French 2

In addition to the review and consolidation of the grammatical structures acquired in earlier years of French language study, the subjunctive and conditional moods are studied in depth. Short readings about contemporary French culture are used to contextualize the syntactical structures and new vocabulary. Students are required to write short compositions, translations, and dictation. Students are also introduced to Francophone literature through poems and short stories. This course may be repeated for a second year if a student requires more time to consolidate her familiarity with the material.

French 3

This course is built around the student's need to recognize structure, manipulate idioms in a meaningful way, read for understanding, and internalize higher-order vocabulary. While maintaining an emphasis on the active skills of speaking and writing, readings progress from shorter fiction to a novel. The entirety of French moods and tenses is reviewed, paying particular attention to pitfalls that affect even native speakers such as past-participle agreement. In their written expression, students are required to demonstrate a variety of structural techniques, such as introductory clauses, relative pronouns, and gerunds. At the end of the course, the department determines whether the student is ready for an Advanced French course, should do a second year of this course, or should move on to French 4.

French 4/5

This is an excellent opportunity for the student requiring more time to hone her writing and speaking skills. It is a natural progression from French 3, allowing the student time to refine her writing as it relates to literary analysis, recounting events, and stating opinions. As there is a sustained emphasis on not only the practical applications of the language but also the culture to which it is related, reading is varied and includes topics related to art, music, history, and literature in the form of poetry, plays, and novels, as well as non-fictional essays and journalistic reports. At the end of the course, depending on performance and at the discretion of the department, the student may take an Advanced French course or repeat a second level of this course.

CLASSES IX–XII**French Minor (m)**

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.

CLASSES XI AND XII**Advanced French: Reading and Writing**

This semester-long course will focus mostly on reading and writing in order to provide students with broad exposure to topics of cultural importance in the French-speaking world and develop their written style in French. Current events in France, Africa, and the Middle East will drive the direction of the syllabus, and the majority of the readings will be from authentic French-language publications (including newspapers, magazines, highly regarded internet sites, and scholarly work that comes from books or essay collections). Current events that focus on basic aspects of culture—such as family, health, education, technology, and politics—will frame the

reading, writing, and in-class discussions. Through numerous writing assignments of various lengths, students will explore not only the content of what they read, but also the cultural perspectives and biases that they encounter. Thus, the goal of this course is two-fold: to become aware of important cultural issues in the French-speaking world and to read critically and observe the cultural differences that occur in the texts examined in relation to a US-based audience.

CLASSES XI AND XII

Advanced French: Listening and Speaking

This semester-long course focuses on developing a student's "French self"—one that feels at ease listening to French radio and TV shows, or expounding extemporaneously on a variety of cultural topics both formally and informally. The coursework will primarily develop competencies in listening and oral production, with an emphasis on situations students might face when traveling, studying, or working in a Francophone country. As they are exposed to a range of authentic audio (radio, television, cinema, internet video sites, poetry, news reports, etc.), students will critically assess and imitate native intonation, accent, register, and presentation styles—making them their own in the process. Furthermore, an emphasis on acquiring language through context will prepare students for continued language learning outside of the classroom in their personal, academic, and professional lives.

CLASS XII

Advanced French: Literature

This semester-long advanced course offers an opportunity for students to acquire an appreciation of French and Francophone culture through the study of literary texts. Reading a variety of plays, poetry, novels, and operas from the eighteenth through twentieth centuries (along with occasional excursions into the Renaissance period), students will deepen their understanding of the literary tradition in French and how literature has shaped the French-speaking world. In addition to readings and in-class discussion, students will have the opportunity to attend opera and films performed in French throughout the city, as well as visit the Frick Collection for a guided tour in French, connecting literature to art and situating them both in the context of pre-revolutionary French history. Students will write brief papers that

will teach them the essential techniques of French "explication de texte" (literary analysis) as well as have regular vocabulary quizzes and in-class discussions.

CLASS XII

Advanced French: Cinema

This semester-long course will introduce advanced students of French to Francophone culture through the lens of its cinematic tradition, beginning with a brief introduction to how to "read" film and progressing to a series of theoretical texts in French to introduce students to film studies. The course aims to show students how French cultural norms are translated into image, introducing cinematographic passages from Charlie Chaplin, avant-garde movies, nouvelle vague, and contemporary movies. Students will work to improve their oral comprehension and incorporate authentic idiomatic and colloquial language into their own speech, while, in the latter part of the course, considering how this oral and visual language travels to Francophone countries and gets reappropriated by local cultures (Maghreb, Canada, Caribbean, Europe, and Africa). Assessment will take the form of written analysis, as well as oral presentations, with students participating in a range of activities inside and outside of the classroom.

SPANISH

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; the elementary concepts of verbal mood are introduced by the end of the year. 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

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. The course is taught entirely in Spanish and may be repeated for a second year if a student requires more time to consolidate her familiarity with the material.

Spanish 3

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. At the end of the course, the department determines whether the student is ready for an Advanced Spanish course, should do a second year of this course, or should move on to Spanish 4.

Spanish 4/5

This is an excellent opportunity to hone one's skills in writing and speaking. The focus of the course content is on cultural readings as they relate to interests in national lifestyles, the history of art, popular music, politics, and current events. The readings are for the most part excerpts of Spanish-language magazines and newspapers. Writing assignments require in-depth analysis and presentation of a particular point of view, while incorporating sophisticated syntactical devices and higher-order idiomatic expressions. This course may be repeated with a different teacher and set of topics.

CLASSES IX–XII**Spanish Minor (m)**

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.

CLASSES XI AND XII**Advanced Spanish: Reading and Writing**

This semester-long course guides students through a broad range of writing styles and genres, enabling them to recognize and comprehend different rhetorical registers of the Spanish language. Additionally, the course requires students to produce writing that conforms to well established conventions and protocols, yet maintains a voice that is their own. In spite of this formal variety, each iteration of this course aspires to have a unifying theme, which will be announced by the instructor on the first day of the semester. As students read literary examples from a wide range of historical and cultural contexts, they will be asked to interrogate the ways in which writers present the stories they tell in the way they do. The reading list covers a wide range of historical periods: from the late Middle Ages all the way up to the twenty-first century, both in Spain and Spanish America. The class focuses on major cultural figures (such as Miguel de Cervantes, Jorge Luis Borges, Lazarillo de Tormes, Benito Pérez Galdós, Federico García Lorca, Mario Vargas Llosa, etc.) as well as major cultural phenomena (from painting to film). Students are required to do analytical examinations of the texts read for and in class, as well as produce analytical readings that can be either academic or creative.

CLASSES XI AND XII**Advanced Spanish: Listening and Speaking**

This semester-long course is an intensive study of how the spoken word affects our lives. Students are exposed to a broad range of presentational speaking in Spanish (including radio, television, cinema, spoken-word poetry, speeches) and are required to produce dialogues, skits, and presentations that respond to a broad range of real-life situations. Building on students' public speaking skills, this class highlights how a person's speaking can be perceived by others, as well as

how to communicate effectively and appropriately in different types of scenarios. Students examine their impressions and personal reactions to different styles of speech they examine in class and for homework. As they are exposed to different types of conventions, they assess critically the ways in which “effective communication” changes in relation to varying contexts, including different historical time periods, diverse socio-economic situations, and cross-cultural interactions. Finally, this course focuses on how accents, dialectical variations and inconsistent lexicons exist in the Spanish-speaking world today. Overall, the class will require intense listening and creative responding within the target language.

CLASS XII

Advanced Spanish: Literature

This advanced semester-long course is built around a fundamental suspicion: that the complex history of post-war Spain is “just” the textual interweaving of the diverse stories that were told during the period. Perhaps not accidentally, the Spanish language only has one word at its disposal to designate both history and story: “historia.” The line between history and stories begins to blur, regardless of whether the latter were intended as realistic in tone or appeared outwardly fantastic and even mysterious to their readers at the time. In fact, there is a possibility that the more imaginary the story, the more revealing of the secret forces operating in Spanish contemporary history. Students in this class will have the opportunity to read, discuss, and write about a wide range of short stories authored by some of the most prominent Spanish literary figures of the last seven decades, in the spirit of furthering their familiarity with the written word as well as serving as an introduction to Spain’s recent history.

CLASS XII

Advanced Spanish: Art

Through a targeted study of artists from the Spanish and Latin American cultural space, students in this advanced semester-long course will research, reflect on, analyze, and debate major issues involved with, next to language, one of human civilization’s highest achievements—art. After an introductory discussion of the general issues involved with the definition of art and its different forms, students will be assigned to groups, each of which will argue that a specific art form, be it literature, visual arts, performing arts,

or architecture, best achieves a more effective and intimate depiction of human nature. Based on their study of works by Latin American and Spanish painters, playwrights, musicians, dancers, architects, and authors, students will conduct individual presentations on an artist of their choice, representative of the art form to which they have been assigned. At the end of the semester, students will engage in a debate in which the groups will make the case for “their” art form being the best to reflect human nature. All written and oral work will be in Spanish.

MANDARIN CHINESE

Mandarin 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.

Mandarin 2

This course is a natural continuation of what was covered in Mandarin 1. A significant amount of new vocabulary and characters is added to this 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.

Mandarin 3

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.

Mandarin 4/5

Although students enrolled in this course continue to hone their skills in writing, reading, listening, and speaking, the materials studied focus more heavily upon contemporary Chinese society and

cultural appropriateness. Selected readings come primarily from newspaper and magazine articles. Not only are students expected to use the target language more extensively in speaking on a variety of topics, but they also write longer and more in-depth compositions in reaction to what they must read. By the end of the course, it is expected that students be able to express in considerable detail cultural differences between China and the United States. As the emphasis shifts increasingly to written expression, more classical forms of writing and idiomatic usage are to be mastered.

CLASSES IX–XII

Mandarin Minor (m)

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.

CLASSES XI AND XII

Advanced Mandarin: Contemporary China

This advanced semester-long course is designed for students who have achieved an overall high intermediate to advanced level of proficiency in Mandarin and wish to further strengthen their spoken fluency. At the same time, this course will continue to develop students' overall language skills through readings and discussion on a variety of contemporary topics about China's economy and politics, as well as social and cultural issues. Classroom activities will focus on speaking, presentations, and class discussions. Students will make connections between the readings and their own lives and opinions, employing newly learned vocabulary and structures to develop

communication skills, analyze readings more critically, and share their opinions with classmates. Written assignments, vocabulary quizzes, and oral exercises will be assigned to students as homework. Class materials used will include a textbook, supplementary articles, and video clips.

CLASSES XI AND XII

Advanced Mandarin: Cinema

This semester-long course will introduce students to the rich and longstanding cinematic tradition of the Chinese world. The class will briefly introduce important icons and traditions from early Chinese filmmaking, but the focus of the course will be on how the contemporary Mandarin-speaking world uses film to reflect contemporary culture. The class will also consider other, more minor industries that present counter-narratives to mainland China's hegemony, such as films from Taiwan and Singapore. Finally, students will consider Chinese global "blockbuster" hits of recent times and compare them to what is popular with mass-media markets within China. Students will reflect on the works presented through a variety of written and oral reflection, with presentations and discussions throughout, as well as a summative presentation at the end of the semester.

COMPUTER SCIENCE

CLASS IX**Programming (m)**

This course is a year-long introduction to web development and is built around the study of HTML, CSS, and JavaScript, the core technologies of the modern web browser. Students learn how these technologies, combined with the client-server model, are critical to the worldwide web. Using these technologies and computational thinking, students design and build their own interactive websites with increasing difficulty and sophistication.

CLASS X**Engineering and Design (m)**

This semester-long course is an elected part of the required Arts and Digital Design sequence in Class X. In this course, students learn how to apply a variety of tools and technologies to prototype and develop their own innovations and re-imaginings that have 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.

CLASSES XI AND XII**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.

CLASSES XI AND XII**Web Application Development (m)**

In this one-semester, second-level programming course, students will expand upon their introductory work in JavaScript and learn to apply those skills to server-side scripting. Using node.js, students will learn to work with Application Programming Interfaces (APIs) in the creation of web applications.

ENTREPRENEURSHIP

CLASSES X–XII**Business Development for the Young Entrepreneur (m)**

This semester-long course gives the aspiring young entrepreneur the full breadth of information needed to bring a concept for a business from idea to start-up. Students will learn how to develop a business concept, test market conditions, develop a budget and financial model, create marketing and advertising material, and plan a strategy for communicating the plan to potential lenders/donors. At the end of the semester, students will present their concepts to their peers and potential funders in a formal setting. Students may choose to work in groups or alone and will be guided throughout the semester by various experts and faculty.

HEALTH AND WELLNESS

CLASS IX**Foundations in Health and Wellness (m)**

This course establishes the foundation for health and wellness education in Upper School. Students will develop their decision-making, communication, and media-literacy skills while exploring identity and relationships, and navigating adolescence. 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. This semester-long course meets once per eight-day cycle and is required for all Class IX students.

CLASS X**Adolescent Health (m)**

Building on the skills introduced in the Class IX curriculum, students in Class X will delve further into issues affecting adolescents in our school community. Designed using the results of our most recent community health survey, this course explores areas essential to adolescent health including alcohol, nicotine, and other drug use; body image; healthy relationships; nutrition; mental health; positive and safer sexual experiences; and stress management. Students will further develop their decision-making, communication, and media-literacy skills. This semester-long course meets once per eight-day cycle and is required for all Class X students.

CLASS XI**The Brain-Body Connection (m)**

This course explores the myriad ways in which the brain is the foundation of an individual's physical, mental/emotional, and social health. In the fall, topics discussed include: brain anatomy and physiology; the promotion of brain health through nutrition, exercise, sleep, and stress reduction; the ways that alcohol, nicotine, and other drugs affect brain function; and intersections between sexuality and the brain. In the spring, students uncover how personality and behavior are rooted in the brain and nervous system through reading the book *Quiet* and considering the introvert/extrovert spectrum. This year-long course meets once per eight-day cycle (face-to face in the fall and online in the spring) and is required for all Class XI students.

CLASS XII**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. Students explore these connections in the fall by reading the book *An Unquiet Mind*, an account of one individual's experience coming to terms with mental illness as she embarks on adulthood. In the spring, topics discussed include personal health goal setting; health promotion through nutrition, exercise, sleep, and mindfulness; and developing healthy attitudes toward substance use and sex/sexuality. This year-long course meets once per eight-day cycle (online in the fall and face-to-face in the spring) and is required for all Class XII students.

GOING BEYOND BARRIERS

Going Beyond Barriers is a required four-year sequence comprised of the courses listed in this section.

CLASS IX**Agents of Change (m)**

This required seminar is a survey course designed to introduce students to the concepts of inequality, systems of power, social justice, civic engagement, and community issues. Through self-reflection, readings, and field trips, students have the opportunity to learn about their own role in their communities and to discover their potential to

make an impact. This work will inform their service and justice work during the following three years in the Upper School.

CLASS X**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.

CLASS XI**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.

CLASS XII**Essential Questions of the Mind and Heart: A Capstone Course on Questions in Psychology, Philosophy, and Ethics (m)**

In this course, seniors will explore and discuss numerous essential questions in the fields of psychology, philosophy, and ethics that have inspired humans and citizens throughout time. At the beginning of the term, students pose one essential question of their choosing, and their readings are in pursuit of that individual, overarching question.

VISUAL ARTS

CLASSES XI AND XII**Advanced Art: Projects in Art**

Prerequisites: Permission of the department head and two semesters of art electives, one of which must be in the chosen area of concentration

This is a year-long* course that offers an immersion in the techniques, aesthetics, and practice of the student's choice of one of the following four disciplines: ceramics, drawing, painting, or photography. Upon acceptance into this course, students must submit a written proposal outlining the body of work that they wish to pursue: its conceptual content, technical skills to be mastered, and genres to be explored. Every student will complete three projects exploring observation, process, and subject; one of the projects from the chosen discipline should include materials and processes from one of the other disciplines.

Students and instructors from all four disciplines will meet together once every eight-day cycle for group discussions of assigned readings, work-in-progress critiques, and museum and gallery visits. At the end of each semester, students will present their work in a completed portfolio, together with a written narrative and a research paper on an artist or art movement of their choice.

*This course may be taken for one semester with the approval of the department head.

ELECTIVE OFFERINGS

All of the courses in this section are semester-long courses.

CLASS IX**Ceramics (m)**

Students will use the pottery wheel and hand-building techniques to produce utilitarian ceramics with an emphasis on sculptural form and surface decoration. The exploration of form, volume, texture, color, and scale will lead to both traditional and experimental ceramic pieces. Ceramics from diverse cultures, past and present, will be studied. Ceramics from diverse cultures, past and present, will be studied.

CLASS IX**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.

CLASS IX**Digital Imaging (m)**

This course is oriented toward graphic design. Students will work on the computer using the software program Photoshop, and they will observe various images in the media, which will lead to projects such as posters and CD covers.

CLASS IX**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.

CLASS IX**Introduction to Painting (m)**

Students will investigate the fundamentals of painting and drawing of the still life, landscape, and the figure. They will work primarily from direct observation. Assignments will address composition, the representation of space and form, the modulation of color, and atmospheric perspective.

CLASSES X–XII**Ceramics (m)**

Students will learn to make vessels and other functional ceramics using the pottery wheel and a variety of hand-building techniques. They will explore the material properties of clay and gain an understanding of its possibilities and limitations. Discussions on the function and history of ceramics will lead to individual approaches to building with clay and applying color.

CLASSES X–XII**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 pencil, charcoal, and ink. This will include exploring the principles of measurement, while applying a variety of mark-making techniques.

CLASSES X–XII**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.

CLASSES X–XII**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.

CLASSES X–XII**Photography II (m)**

Prerequisite: 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.

ART HISTORY**CLASS X****Introduction to Art History (m)**

This semester-long course is an elected part of the required Arts and Digital Design sequence in Class X. It focuses on visual analysis through the study of projected images of western art from the Renaissance to the twentieth century. Students discuss major innovations and stylistic influences in art as they examine the historical context and formal developments of painting and sculpture. Students visit the Met, the Whitney, and MoMA to observe and write about art. The principal textbook for the course is Simon Schama's *The Power of Art*.

CLASSES XI AND XII**Advanced Art History**

This is a year-long course open to juniors and seniors who have successfully completed the Class X Introduction to Art History course and who would like to study selected art-historical topics in greater depth. The first semester will focus on the development of techniques pioneered during the Renaissance that led to modern painting (e.g., the use of perspective) and the evolution of new genres in painting, such as landscape and portraiture. The second semester will focus on the art, politics, and gender issues of Impressionism, the milieu of Vienna c. 1900 (Freud, Klimt, Schiele), and depictions of the human body in nineteenth-, twentieth-, and twenty-first century art, from Manet to our own times.

VISUAL EDUCATION**CLASSES IX–XII**

The program in visual education incorporates works of art into English, history, mathematics, art history, classics, modern languages, and art classes. Students learn to observe and analyze works of art and discuss them with reference to formal qualities as well as historical and cultural context. Through studying visual images, students learn art history and develop the ability to express and support their interpretations while learning to value the ideas of others. Students combine classroom work with visits to local museums and cultural institutions.

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.

CLASSES X–XII

Acting II (m)

Prerequisite: 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 IX–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.

CLASSES IX–XII

Spring Musical (m)

Each spring, interested Upper School students have the opportunity to audition for and present a full-scale 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.

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 a Kanye song. Each week 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.

ELECTIVE OFFERINGS

In addition to the following courses, several extracurricular performance options are available, including chamber ensembles (small group instrumental ensembles), Bassless Accusations (the Upper School a cappella group), and Gospel Girls (the Upper School gospel choir).

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 Interschool 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 Instrumental Ensemble, (ii) enrolled in a Composition class, or (iii) enrolled in Intermediate or Advanced Guitar.

Upper School Chamber Chorus is an auditioned singing group that rehearses twice in the eight-day cycle. This highly selective group (10–16

singers) performs challenging repertoire, including Renaissance, Baroque, contemporary classical, and vocal jazz pieces that are suited to a small, advanced ensemble. Students receive arts credit for participation in Upper School Chamber Chorus.

CLASSES IX–XII

Upper School Ensemble (m)

Upper School Ensemble is open by audition to any and all Upper School instrumentalists. Repertoire and song arrangements are inclusive of a variety of instruments, including strings, winds, and piano. The ensemble rehearses twice in the eight-day cycle and fulfills the prerequisite requirement for US Chamber Chorus. Students receive arts credit for participation in Upper School Ensemble.

CLASSES IX–XII

Beginning Guitar (m)

Beginning guitar is designed to help students who are new to guitar develop a basic skill set. It meets twice in the eight-day cycle and builds techniques suitable to a wide range of styles. Subjects covered include basic chords and accompaniment styles, reading guitar tablature, and playing simple guitar intros, riffs, and solos. Some time is devoted to learning songs chosen by class members.

CLASS IX

Intermediate Guitar (m)

Prerequisite: Class VIII Guitar or equivalent level (by consultation with instructor).

Intermediate guitar is designed to help students with basic proficiency expand their skills. It meets twice in the eight-day cycle and builds techniques suitable to a wide range of styles. Subjects covered include advanced chords and accompaniment styles, working with tablature from the Internet, simple solo playing, and basic chord theory. Some time is devoted to learning songs chosen by class members. The class also prepares ensemble pieces for the winter and spring concerts.

CLASSES X–XII

Advanced Guitar (m)

Prerequisite: Intermediate Guitar or equivalent level.

Advanced Guitar meets twice in the eight-day cycle. Students play music in a wide variety of styles to help refine and strengthen their technique. They learn the basic theory that will permit them to work independently, figuring out the songs they want to play and beginning to write and improvise. Students are encouraged to bring in music that interests them and, whenever possible, skills are taught through music chosen by students. The class performs ensemble pieces at the winter instrumental and spring concerts.

CLASSES IX–XII

Music Composition I (m)

In this semester-long class, students experiment with a range of small-scale composition projects to build their portfolios. Each workshop involves both analysis of music from a wide range of eras, as well as composition exercises to understand the nuts and bolts of the process. Students regularly share and revise their work. They also develop skills in notating music using Noteflight. The syllabus is catered to student interest and background, while simultaneously stretching students to experiment with new forms, instruments, and sounds. The class culminates in a final performance of new works for their peers.

CLASSES X–XII

Music Composition II (m)

Prerequisite: Music Composition I

In this semester-long, tutorial-style course, students will tackle a large-scale composition project of their choice: for instance, a piano sonata, a string quartet, or a song cycle. Classes will involve analysis of music from a wide range of eras and styles, as well as composition/theory exercises. Students will regularly share and revise their work. They will also develop skills in notating music using Noteflight. The syllabus will be catered to student interest and background, while simultaneously stretching students to experiment with new forms, instruments, and techniques. Students will attend concerts of new works throughout New York City, and professional composers and musicians will visit class to perform and critique students' works in progress. The course will culminate in a final performance of new works for their peers.

DANCE

CLASSES X

Introduction to 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 on Camera (m)

The goal of this semester-long class is to explore dance that reaches beyond conventional theatricality by using film. Through video, readings, and movement classes, this class will introduce dances that take advantage of film, video, and new digital media. The choreographers we will be studying are creating dances free of the constraints of ordinary space and time. We'll talk, dance, and share our impressions. Bring an open mind.

With the exception of Merce Cunningham, all of the artists we will be covering in this class are alive and still working in the field. In addition, we will be creating video dance projects and viewing some dance live.

ONE SCHOOLHOUSE

One Schoolhouse provides online courses for a consortium of independent schools around the world, allowing students to pursue particular academic interests beyond the relevant courses available at their home school. Participation in One Schoolhouse requires permission from a student's dean and division head. Students interested in One Schoolhouse should discuss the option with their dean. For more information, visit oneschoolhouse.org.

INDEPENDENT STUDY PROGRAM

CLASS XII

The Independent Study Program (ISP) offers seniors the opportunity to pursue an area of interest independently, under the direction of a faculty mentor. Students may drop up to two full-credit courses and physical education in the spring term to free up the time necessary to examine, in depth, a topic of their own choice. Students have regular meetings with their in-school faculty mentor and also attend a seminar at which they present a brief report on their progress. All projects involve research, as well as a written paper. At the end of the term, students present their completed projects in public, and their work is evaluated by a committee of ISP mentors.

Some examples of recent ISP topics include:

- Hydroponic Gardening in Schools: The Future of Urban Agriculture
- The Great Divide: Media and the End of Bipartisanship
- Write Here, Write Now: A Journey through the Literary Magazine Submission Process
- Status Unknown: Social Media's Impact on Mental Health
- Strangers in Town: A Documentary About Gentrification in Brooklyn
- The Inflammasome and its Role in the Adaptive Immune System
- The Social Implications of the Negro Spiritual and Early Gospel Music
- Art as Destruction: Changing Perception Through Sculpture

COMMUNITY ENGAGEMENT

CLASSES IX–XII

Community Service Requirement

Community service at Nightingale is an invaluable part of each student's life and education. Each year, all students in Classes IX–XII must demonstrate a sustained service commitment. Students in Class IX fulfill this commitment through the Agents of Change course, while students in Classes X–XII must work with one organization each year, only one of which may be within our schoolhouse (such as peer tutoring or Hobbyhorse). Many students choose to work with organizations in the surrounding community; Nightingale students in past years have worked with public school students

in nearby afterschool programs or with children living in shelters, volunteered in soup kitchens or hospitals, delivered meals to homebound elderly, and participated in projects sponsored by the Joint Schools Activities Committee or the 92nd Street Y. 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 written reflection to demonstrate their level of engagement and learning from their service commitment.

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 quarter 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, mediation, myofascial-release techniques, and other methods that explore the connection between the mind and body. Instruction will draw on both Eastern and Western techniques that are grounded in the profound way our bodies, thoughts, and emotions, as well as social and behavioral factors, affect each other.

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. As part of their work in this area, students will analyze various fitness trends and their influences.

Games and Sport

Teamwork, strategy, and comradery: these are the hallmarks of any good game or sporting event. Within this area of focus, students will participate in various games and team sports. Students will learn the history, rules, effects on culture, and influences on society of the games they play, as well as explore the business of games and sport.

If a student is on a Nightingale athletic team, she is exempt from physical education for the duration of that team's season. 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 for alternate athletic credit.

ATHLETICS

Nightingale recognizes the value and importance of athletic participation for girls. We offer a wide-ranging program of competitive teams for our students. Participation on a team fulfills a student's physical education requirements for that season.

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

The Upper School library program supports the research and reading lives of the students. Through small-group and one-on-one instruction, our goal is to hone foundational research skills, strengthen the curriculum, and foster a lifelong appreciation of literature. In collaboration with faculty from various academic disciplines including the technology department, the librarians provide information literacy for the digital age via contextual, project-based instruction. Students read widely and the library's diverse collection appeals to a range of interests and identities. Our goal is to cultivate competent, creative, and agile thinkers who love reading and are confident navigating print and digital platforms. Individual conferences with librarians provide important practice in articulating research questions, accessing professional expertise, and experiencing rigorous and robust lines of inquiry through current research methods and practices. In addition to our own collection, librarians encourage students to make use of resources throughout the metropolitan area—including online databases and catalogs at neighboring schools, public libraries, cultural institutions, and universities—in order to experience New York City as an extended classroom and engage in a global learning community.

THE ADVISORY SYSTEM

Each grade has its own dean and homeroom coordinator, who work together closely throughout the year. In partnership with the advisors (see below), class deans are responsible for supporting each individual student and being in contact with parents as needed, while homeroom coordinators keep an eye on the upkeep and programming of the grade as a whole.

When students first enter the Upper School, they are assigned to a Class IX group advisor, who guides them through the new experiences of Upper School and helps them begin to find their voice and learn to advocate for their own academic, social, and emotional needs. At the end of Class IX, each Upper School student chooses her own individual advisor (a member of the school's faculty and staff) and arranges regular meetings for support and guidance. This extensive advisory system offers individual attention to each student as she masters a demanding program that emphasizes critical thinking and active learning.

Advisors help students to develop not just academically, but morally, emotionally, and socially, guiding their advisees in making choices and using good judgment as they encounter each phase of their development. Other teachers, coaches, administrators, the school nurse, and school counselors are also all available for consultation and encouragement. The strong relationships students develop with their advisors and other adults in the schoolhouse are critical to their growth; students leave Nightingale as thoughtful, engaged, and caring citizens, ready for the challenges ahead of them in college and beyond.

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.

THE INTERSCHOOL PROGRAM

Nightingale is a member of Interschool, a consortium that includes Brearley, Browning, Chapin, Collegiate, Dalton, Nightingale-Bamford, Spence, and Trinity. It offers courses and programs that change from year to year depending on student interest, and non-academic and academic opportunities are coordinated among these schools. Class X students have a three-day trip to Frost Valley, NY, in January with other members of Interschool.

OFF-CAMPUS STUDY OPTIONS

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, Italy, Spain, South Africa, the Dominican Republic, Colombia, and Zambia.

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, one semester
- School Year Abroad (SYA) in China, France, Italy, or Spain, full year

EXTRACURRICULAR ACTIVITIES

In addition to team sports (see Athletics) and dramatic productions (see Drama), extracurricular activities include the following:

Admissions Tour Guides
 Arts Board
 Asian Culture Club
 Athletic Board
 Bassless Accusations (*a cappella* group)
 CAFE (Cultural Awareness for Everyone)
 Carmina (arts newsletter)
 Chamber Chorus*
 Chorus*
 Comedy Club
 Community Engagement Board
 Debate
 Drama Club
 Ensemble (instrumental music)*
 Environmental Board
 Film Club
 Finance Club
 Gardening Club
 Gospel Girls
 Inclusivity Board
 Ladies of Color Stand
 Latin Club
 Makers' Club
 Mathletes
 Medical Club
 Model Congress
 Nightingale Dance Collective
 Opera Club
 Peer Tutors
Philomel (Upper School literary magazine)
 Robotics Team
 Science Club
Spectator (Upper School newspaper)
 Spectrum (gay-straight alliance)
 Step Up (activism club)
 Student Council
 Teach Through Animals
 Technology Board
Time Regained (current affairs journal)
 Women's Rights Club
 Yearbook

*Students in Chorus, Chamber Chorus, or Ensemble rehearse during the school day and receive arts credit for their participation.