Upper School

2025-2026 CURRICULUM GUIDE

UPPER SCHOOL

Overview

The Upper School curriculum reflects our belief that a well-rounded liberal arts education, adapted to the modern world, is the best preparation for college and a lifetime of learning. Students establish solid foundations in our Grades IX and X Core curriculum (English, mathematics, history, science, and at least one world language), and then take advantage of our wide selection of offerings that enable students to pursue their interests and build on their strengths to engage in deeper, collaborative, and meaningful learning.

To enrich our students' experience in the Upper School, students have the option of continuing on in our exceptional liberal arts program or exploring their particular curricular interests by applying to one of our innovative STEM or Global Pathways. At the end of sophomore year, students have the ability to apply to a pathway and tailor their learning experience for Junior and Senior years with targeted coursework and research opportunities that further their knowledge of systems and enhances their critical thinking skills. Students who complete either pathway program will have an additional designation on their transcript highlighting their completion of the program, an acknowledgement of their academic achievement in their chosen area of focus.

No matter what path a student chooses in the Upper School at Nightingale, they are expected to complete twenty major courses during their high school career. Students generally take five majors each semester with the option (but not requirement) to take six majors. Additionally, specific minor and major courses are required for graduation (see "Required Minors" on the following page).

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

- Majors meet seven times per cycle.
- Minors meet three or fewer times per cycle.

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

Exceptions to these graduation requirements may only be made at the discretion of the Head and Associate Head of Upper School. Please refer to the Upper School Handbook for additional information.

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

Honor Code

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

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

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

Diploma Requirements

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

REQUIRED MINORS
Going Beyond Barriers*
Class IX Programming
Class X Arts and Digital Design Sequence**

**This four-year sequence includes Class IX Power and Patriarchy: Who Made the Rules?, Class X Leadership, Class XI Public Speaking, and Class XII Financial Literacy Seminar*

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

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

UPPER SCHOOL

By Area of Study

BEYOND BARRIERS

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

CLASS IX

Power and Patriarchy: Who Made the Rules? M

Why teach leadership to sophomores at a girls' school? Four reasons: Number one: it teaches students that leadership is accessible to everyone and is merely a set of behaviors that can be learned. Number two: it teaches adolescents how they can move from problem to progress. Number three: it heightens self-knowledge. Number four: it helps sophomores see themselves differently. And if you can see it, you can be it! The 2025/26 seminar will have a particular focus on promoting principles of kind leadership in partnership with the Riley's Way Foundation.

CLASS X

Leadership M

Why teach leadership to sophomores at a girls' school? Four reasons: Number one: it teaches students that leadership is accessible to everyone and is merely a set of behaviors that can be learned. Number two: it teaches adolescents how they can move from problem to progress. Number three: it heightens self-knowledge. Number four: it helps sophomores see themselves differently. And if you can see it, you can be it! The 2025/26 seminar will have a particular focus on promoting principles of kind leadership in partnership with the Riley's Way Foundation.

CLASS XI

Public Speaking M

Speaking in public is about more than just volume, pacing, tone, and stance. Ultimately, a good public speaker is someone who is confident in themselves and enthusiastic about what they're saying. In this class, through the development and delivery of a variety of speeches, students will not only learn the basics of rhetoric and effective speaking strategies, but they will also develop their sense of confidence by uncovering their authentic voice and unique sense of humor. After one semester of Public Speaking, students may actually find speaking in front of a crowd to be fun and freeing.

CLASS XII

Senior Financial Literacy Seminar M

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

CLASS X DIGITAL DESIGN SEQUENCE

Nightingale's Digital Design Sequence is a requirement for Class X students, who must choose two of the following semester-long courses.

Design and Digital Fabrication M

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

Music Appreciation M

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

Introduction to Art History M

Exploring selected themes in art, students view and analyze a wide variety of art works in different mediums from around the world and a range of historic periods. While this

semester-long, introductory course is not a comprehensive survey, the class presents a basic overview of art from antiquity to the present, including the achievements of artistic giants, spanning from Leonardo da Vinci to Kara Walker.

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.

PATHWAYS

Pathways is a bold re-imagining of the Upper School experience designed to make learning more relevant, interdisciplinary, and student-centered. At its core is the belief that education must reflect the interconnectedness of the world students are preparing to enter. Beginning in Grade IX, all students will participate in a common, rigorous two-year core curriculum that emphasizes academic exploration. This foundational period fosters essential competencies—critical thinking, communication, collaboration, and curiosity—and provides students with the space to explore minors and build the skills and confidence needed for deeper work in Grades XI and XII.

At the end of Grade X, students desiring a specific academic challenge and level of inquiry can apply for a personalized academic focus area, or *Pathway*, which aligns their coursework, travel, research, and real-world experiences with their interests. The two initial Pathways include STEM and Global Studies. Each Pathway offers a curriculum map with recommended courses, global experiences, culminating with the required *Senior Capstone*—a semester-long research, design, or impact-driven initiative supported by writing, deep analysis, knowledge creation, and public speaking. Importantly, Pathways are not rigid tracks; they are flexible frameworks that allow students to make interdisciplinary connections and pivot as their interests evolve in consultation with faculty and college counselors. Aligning core skill development with authentic exploration and intentional mentorship empowers students to shape a cohesive, self-driven academic narrative about who they are, their intellectual interests, and how they hope to engage with the world. As one leader put it, "*Pathways* is not simply a program; it is a vision for what transformative education can be."

STEM SCHOLAR PATHWAY:

There are two separate STEM pathways that students can choose:

- Independent Science Research Program (ISRP) - Lab-Based Focus
- Math & Computer Science Focus

STEM ISRP Pathway Requirements:

- Complete Grades IX & X Core classes
- Application and Acceptance to ISRP and STEM Pathway
- Science Seminar M in Class XI and Class XII
- Biotechnology in Class XI Spring
- STEM Summer Internship Between Class XI and Class XII
- Triple-Up on STEM Classes all four semesters of Class XI and Class XII
- Membership in a STEM Club
- Peer tutor in a STEM field
- Senior Capstone focused on ISRP internship work

STEM Math & Computer Science Pathway Requirements:

- Complete Grades IX & X Core classes
- Application and Acceptance to STEM Pathway
- STEM Seminar M in Class XI and Class XII
- Advanced Robotics & Engineering
- Triple-Up on STEM Classes all four semesters of Class XI and Class XII
- Membership in a STEM Club
- Peer tutor in Math or Computer Science
- Senior Capstone focused on Math or Computer Science

GLOBAL SCHOLAR PATHWAY:

The pathway is a combination of required classroom coursework (with key demonstrations of learning) and experiential learning requirements.

Global Scholar Pathway Requirements:

- Class IX and Class X Core classes
- Application and Acceptance to the Global Pathway
- Global Education Seminar M in Class XI and Class XII (two semesters each year).
- Reflections and demonstrations of learning of the five global competencies each year, across multiple experiences. (Through Global Education Seminar)
- Four years of a modern language
- Three History electives with a global focus
- Two English electives with a global focus
- Senior Capstone on an issue of global significance

SENIOR CAPSTONE PROJECT

The Senior Capstone is a semester-long, interdisciplinary, student-centered course that empowers Class XII students to pursue a topic of personal interest through in-depth, independent research. Under the mentorship of a faculty section leader, students work in small cohort groups that foster seminar-style learning and help build a community of shared purpose and support. Section leaders empower students to ask big questions and design original work. While projects can take many forms, from traditional research papers to performances, product prototypes, or portfolios, all include authentic research and a written component that helps students contextualize their work within a broader field of inquiry.

Through this course, which takes place in the spring of Class XII students strengthen essential academic and real-world skills—including research and inquiry, critical thinking, time management, self-direction, and the art of giving and receiving constructive feedback. They must exhibit strong

organizational skills and the capacity to adapt to changing circumstances. Each Capstone project culminates in a comprehensive research paper and a formal presentation delivered at a school-wide colloquium. This public presentation allows students to communicate their ideas clearly and confidently, demonstrating both subject mastery and dynamic presentation skills.This transformative learning experience highlights students' growth and preparedness for the next stage of their academic and personal journeys.

ENGLISH

The English program centers on the exposure to a diverse array of literature, the study of character, the analysis of text, and the deep investigation of language and meaning. Students are asked to engage with important ideas, to listen actively to and respond to their classmates, and consider different, often contradictory perspectives. Ultimately, the work of the English classroom is to learn to write - cogently, intentionally, powerfully, and effectively, and in doing so, to learn to think critically, to question assumptions, to evaluate arguments, identify biases, and synthesize information from different sources. Throughout the course of their Upper School trajectory, English students have ample opportunity to reflect on their work, incorporate feedback from their teachers and classmates, develop comfort with nuance and ambiguity, and find joy in reading, writing, and the discussion of both.

CLASS IX

English CORE IX

In English 9, students learn to read and write with curiosity and precision. Students read a variety of texts, including Jacqueline Woodson's Red at the Bone, J.D. Salinger's The Catcher in the Rye, Ali Smith's Girl meets boy, Shakespeare's Romeo and Juliet, Gish Jen's Typical American, and Moisés Kaufman's The Laramie Project. Each text disrupts what Chimamanda Ngozi Adichie calls "the danger of a single story," a concept that informs our discussions and writing assignments throughout the year. Students identify how and why our understanding of ourselves and our world is enriched when we have access to a variety of stories and storytellers. A sonnet unit, focusing on Shakespearean and contemporary sonnets, introduces students to the poetic form and gives students an opportunity to create their own original sonnet. Assessments include analytical and imaginative writing assignments, weekly reading comprehension exercises, and creative projects that students can approach independently or collaboratively. Students engage in an intensive study of English grammar and usage rooted in a study of The Beauty of the System, a comprehensive guide to improving students' written and oral communication in Standard English, authored by our department's own Brad Whitehurst.

CLASS X

English CORE X

In English X, students read a variety of texts that deal with the theme of transformation. Beginning with Tara Westover's Educated, students consider what prompts some people to change from one state to another, whether outwardly in the shape of their lives, or inwardly in their thoughts and feelings. Discussing Educated also encourages students to contemplate what the purpose of an education is. This course includes texts of different genres; students read plays (A Doll's House by Henrik Ibsen and Metamorphoses by Mary Zimmerman), novels (The Great Gatsby by F. Scott Fitzgerald and Their Eyes Were Watching God by Zora Neale Hurston), memoirs (Night by Elie Wiesel and Narrative of the Life of Frederick Douglass) and selected Romantic poetry. Students learn to read critically and to develop nuanced analytical arguments. They also complete several creative assignments, including a short story and a personal essay.

CLASSES XI AND XII

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

English XI

English XI is built around a distinctive genre: the personal essay. In this one-semester course, students explore their unique relationship to language and narrative. Students explore the following essential questions: As an essayist, what do I have to say, and what are my options for saying it? How have writers over the years used essays to explore their own thinking, and how can their examples be used as models for my own writing? How can I use the resources of fiction (anecdote, dialogue, scene-setting description, etc.) and poetry (selective word choice, figurative language, etc.) to expand my options in the personal essay genre? Students read both classic and contemporary essays and have time to workshop their work in class. The course culminates in a unit on mid-century and contemporary confessional poetry, an opportunity for students to see how language can be distilled even further.

English XII

In English XII, students learn to contribute to vital conversations about identity and citizenship in a perceptive and imaginative manner. Students read "Brokeback Mountain" by Annie Proulx (and watch the film adaptation), As I Lay Dying by William Faulkner, Citizen by Claudia Rankine, Sweat by Lynn Nottage, and selected poems by Emily Dickinson. These works differ considerably both in genre and in ostensible subject matter. They are, however, all American texts that converge on the theme around which the course is built: unmet needs. Students consider how characters facing different circumstances respond to those needs (and at what cost). We consider how we—as readers, writers, and citizens—might negotiate our own needs with those of others. To what extent can people with different needs and experiences find a shared sense of reality? Written assessments are both analytical and creative in nature.

SPRING ELECTIVES

Bible as Literature
Non-religious in approach, this course is designed for all students—whether Bat Mitzvahs or confirmands, atheists or agnostics. The number-one bestseller of all time, the Bible is first of all an anthology of ancient literature, so we will read it in its historical context. We will explore the Good Book's great literary diversity—from myth to history, from prophecy to poetry, from epistles to eyewitness accounts—and students will write their own creation myths, psalms, gospel accounts, and letters to the faithful. We also will explore ways that artists have depicted Bible stories over the centuries. At the end of the term, each student will select one biblical painting in the Metropolitan Museum of Art for a final interdisciplinary project.

Page to Screen
So many of today's most beloved films draw inspiration from literature. Most Americans spend far more free time watching screens than reading, and we can now watch films on our phones via streaming platforms and during binge-watching sessions. What is the appeal of adaptations? What makes an adaptation effective? We'll start by framing the questions filmmakers think about when they adapt literature to film, and we'll build our own visual literacy skills (including editing, sound design, cinematography, mise en scène). Then, we will examine a variety of literary texts and film adaptations, including cinematic classics (Akira Kurosawa's Rashomon, based on Ryunosuke Akutagawa's short stories), more recent blockbusters (Denis Villeneuve's Arrival, based on Ted Chiang's "Story of Your Life"), and radical reimaginations (the Coen brothers' O Brother, Where Art Thou? as a reimagining of Homer's Odyssey). Along the way, you'll have the chance to begin writing your own original adaptation and to teach to your peers an already-existing adaptation you're passionate about.

Art of the Short Story
In our internet age, when our attention seems constantly divided, the short story—which demands a mastery of precision, pacing and voice—can provide both a window into literary history and a bite-size jolt of pleasure. We'll start with Russian masters Gogol and Chekhov and move through experiments in modernism to the realism of Flannery O'Connor, James Baldwin, and Raymond Carver. Then we'll turn to contemporary stories in a range of styles, from authors such as George Saunders, ZZ Packer, Jhumpa Lahiri, Maile Meloy, and Yiyun Li. We'll also look at interviews with writers to learn about their process and gain an appreciation of craft. Ultimately, students will try their hand at their own original pieces.

World Literature
Reading a country's literature provides a crucial insight into its cultural and imaginative life. In our interconnected world, this is more important than ever. In this course, the central theme of which is bridging gaps, we will read writers from around the world. Authors may include Gustave Flaubert, Franz Kafka, Chinua Achebe, Virginia Woolf, Clarice Lispector, Kazuo Ishiguro, Nadine Gordimer, Rohinton Mistry, Kenzaburō Ōe, and Amos Oz. The course will culminate in a unit on portrayals of globalization. We may discuss the cosmopolitans one encounters in the work of Yiyun Li, Roberto Bolaño, Samanta Schweblin, Chimamanda Adichie, and Haruki Murakami. Students will have the opportunity to do both analytical and creative work in which they consider how cultural context informs literature and vice versa.

Misfits and Monsters
Everyone loves a good villain – a thoroughly unsavory character whom we are permitted, even invited, to loath utterly. Fictional worlds that draw clear lines between good and evil make it easy for us to stigmatize or demonize what we perceive as different from ourselves. But fictional worlds that are not so black-and-white, but include ambiguous shades of gray, may be more difficult to negotiate. How does one tell the good guys from the bad, especially when the drifters, misfits, ne'er-do-wells, evildoers – and even the monsters – appear to be not so very different from ourselves?

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

ENGLISH MINORS

CLASSES XI AND XII

Philosophical Inquiry into Our World M
Philosophy as an academic discipline can be esoteric, if not alienating, but we're all philosophers at heart. In this minor, we'll try to reignite the spark of wonder and curiosity we all had as children. What are you wondering about most these days, and what do you most want to discuss in community with others? We'll generate the course agenda and questions together, immerse ourselves in sources that deepen our thinking, and work on making meaning (and, just as importantly, becoming more confused) together. We'll prioritize questions wholly based on your interests, but here are some questions that have come up in the past: What constitutes success? Can time be "wasted"? How might AI impact our understanding of companionship and connection? What do you think happens after you die, and how does that affect how you live your life? Does society need hierarchies to function? This course is only for students in grades 11 and 12. This course may be taken in the fall semester, spring semester, or both semesters, since the questions we'll take on each semester will be different.

CLASSES X–XII

Creative Writing M

In Creative Writing, a one-semester elective minor course, students read select works of literature and literary criticism, regularly hear from visiting authors, and workshop their own writing via peer-review, receiving feedback on the final version from the instructor. Students gain increased familiarity with literary terminology, how to evaluate and respond to each other's work in a workshop setting, and the landscape of contemporary poetry and fiction. Each student is responsible for generating and revising a body of creative work throughout the course of the semester.

HISTORY

In the History Department, Nightingale students explore diverse human systems of the past and present, seeking enduring understandings and inspiration for the lives they will lead in an interconnected, twenty-first century world. Our classes center human ingenuity and social transformation alongside the barriers that have stymied freedom and flourishing. Dynamic class discussions, varied readings, and an inquiry-based research program equip every Nightingale student with powerful tools for lifelong learning. By analyzing primary sources, scholarship, maps, and quantitative data from divergent perspectives, we lay bare the contested process of building narratives, empowering our students to become critical consumers and creators of knowledge, as well as meaningfully engaged citizens. Our students build capacity to act with keen analytical insight, empathy, and resilience as they develop community and design impactful lives within and beyond the Blue Doors. Throughout, we focus on developing the skills of historical thinking, inquiry-based learning and research, communication, and civil discourse.

CLASS IX

Global History 1

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

CLASS X

Global History 2

During the nineteenth and twentieth centuries, technological, social, and political change ushered in a new era in global history, one often summarized by the term "modernity." But what do we mean by "modern"? How did our contemporary world of technological marvels and remarkable transformation in many aspects of life—but also extreme inequality and, in some regions, persistent violence—come to be? In Global History 2, students address these questions through critical reading, writing, and discussion in a seminar-style class. Topics include industrialization and technological change, urbanization, discourses of belonging and exclusion such as racism and nationalism, the expansion of political rights, the new wave of imperialism that reshaped the globe in the late nineteenth century, the emergence of new political ideologies and new forms of violence such as genocide, decolonization, the Cold War, and the resurgence of religion in politics in the late twentieth century. We will discuss, among other things, varied ways imperial powers interacted with those they sought to dominate, major revolutions and wars, the continuing transformation and expansion of a global economy, individualism vs. social obligations, gender roles, and the respective roles of the state, political ideologies, and national identities. Particular attention is paid to developing students' historical and social thinking, analytical writing, critical reading, discussion, and research skills, with a focus on short timed essays, historiographical analysis, and student-led discussion. In turn, these skills contribute to the consolidation of broader competencies such as critical systems thinking, inquiry-based learning, verbal and written communication, civil discourse, and strategic action.

CLASSES XI AND XII

Over the course of Class XI and Class XII, students are required to take two semesters of US history, one of which must be United States History 1. In addition to those two courses, students in Class XI and XII may also choose from a range of history electives. Additional requirements apply for students wishing to take any of the major courses below at the Advanced level. These requirements may include additional readings and assessments, as well as a significant project.

United States History 1

Through a chronological survey that begins just prior to European colonization and concludes with the Civil War, United States History 1 explores the transformations and continuities that give character to American institutions, cultures, and social structure. Using methods and ways of thinking specific to the field of history, this course helps students understand that contemporary society has been shaped by the decisions and experiences of those who came before us. As a corollary, this course aims to inspire students to active citizenship and participation in and on behalf of the communities to which they belong. We rely heavily on primary sources, incorporate social and cultural history, follow current events, and consider historiographic changes in interpretation.

United States History 2

Beginning with Reconstruction, United States History 2 explores the continued processes through which the United States has questioned and expanded its founding principles, modernized economically and politically, consolidated

geopolitical power, and assumed its contemporary national character. In this course, students will also learn advanced research methods and explore the challenges of writing history by completing their own New York City history project that requires original research, including the use of census data. The class concludes by considering the Cold War era and its legacies.

Case Studies in American Public Policy
Are corporations people? What constitutes a marriage? When, if ever, can race be a factor in the policies of educational institutions? Through case studies, students in this elective will consider how policy-making and jurisprudence have shaped American society. Discussion-based classes will encourage students to challenge one another's assumptions about democratic values and practices and draw their own conclusions about what democracy means in the United States. This course is ideal for students who are interested in deepening their practical and historical understanding of the American political process, as well as for those interested in gaining experience with the case method of instruction frequently used in business and law schools.

Alternative Americas
Conventional historical narratives often focus on the ideas and practices that "won" and became dominant. Yet there were and still are people who lean in and fight for change, or opt out and form intentional communities where gender, consumption, property, and other essential characteristics of society are rearranged. In Alternative Americas, each week we will look at communities, real and imagined, that posit solutions to the most vexing systemic problems we face. As we move through the course and begin to think about the kind of society you think would do the most good and least harm, pay attention to important themes such as the distribution of resources within each community. What kind of ownership structures are there? How do food systems work? What is the relationship between people in a community, non-human animals, and the environment? How does each community approach gender, race, and other axes of inequality in mainstream society? What is the role of religion? What are the ties that bind and the challenges that arise?

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

World Now
How might we assess the state of our world today? Which issues merit our attention and scrutiny? The World Now is an in-depth examination of the culture and politics that animate our contemporary global order. We begin by discussing the role of climate change and how it marks the landscape, focusing on the many narratives that inform this debate. Then, we move to international culture, with the state of journalism today and the ways in which social media has created common assumptions about how global citizens operate in an interconnected world. Then, we focus on international developments in the political sphere, the broad effects of the Ukraine War and international migrant crisis, and the rise of authoritarianism. We conclude the course with a discussion of how the United States operates in our world, approaching our recent politics, issues such as mass incarceration and poverty, the role of guns in American life, book bans and contraceptive rights. This course will enable students' engagement with some of the most pressing issues facing our world now, allowing them to see themselves as empowered historical actors. Students write three essays, taking positions on issues of their choice, and work on solving a contemporary problem with a policy project.

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

History and Theory of Consumer Society: an Economic History of the United States
The term "consumer society" emerged in the United States in the 20th century, and especially after World War II, to encapsulate changes associated with the expansion of industrialization and the increasing centrality of consumption and material abundance in American life. In this course, we will explore the history of consumer society and its impact on everything from the way we organize time and space to how we construct identities and distinctions and create equalities and inequalities. Among the questions we will consider are: why did America become the model for consumer society? Do individuals control consumer society or does it control us? How does mass consumption change our relationship to one another and to ourselves? Topics will include the role of mass media and technology in transforming consumer habits, the social and economic import of fashion, and critiques of and acts of resistance to consumer society. During the second half of the semester, students will complete an inquiry-based research project on a topic of their choice. Throughout the course, we will be

attentive to how lived experience both shapes, and is shaped by, larger economic, political, and social systems.

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

HISTORY MINORS

CLASSES XI AND XII

Holocaust and Human Behavior M
Holocaust and Human Behavior explores the unfolding of the Holocaust through a historical, sociological, and social psychological lens. From the emergence of a German nation-state and racial antisemitism in the late nineteenth century, through the cultural flowering of the Weimar Republic, the rise of the Nazi party and state, the outbreak of World War II, and the development of the shooting squads and death camps that implemented the so-called Final Solution, students will trace a complex narrative of choices, contingencies, and structural factors that culminated in an unprecedented historical catastrophe. The course will conclude by exploring the reconstruction of Jewish life and quest for justice and accountability in the postwar years.

MATHEMATICS

At the Nightingale-Bamford School, we believe math should be seen as beautiful and complex. We value reasoning skills, complex conceptual and abstract thinking, decision-making, and curiosity as essential components of mathematical learning. We strive to create an inclusive learning environment that supports students with a wide range of backgrounds, experiences, and learning styles where our differences are opportunities for learning and growth. We believe in the importance of empowering our students to openly engage in productive struggle and actively strive for our students to be the problem finders and problem solvers of the next century.

The Upper School math curriculum guides students toward increasingly abstract and complex mathematical concepts. Geometry challenges students to think spatially, exploring relationships between shapes, sizes, and dimensions while emphasizing logical reasoning. Trigonometry introduces the study of angles and their applications to periodic phenomena, while statistics teaches students to analyze data and make informed predictions about the real world. Finally, calculus unites concepts of change and accumulation, offering powerful tools to solve problems in science, economics, and beyond. Throughout this progression, students deepen their mathematical understanding, developing competencies in Throughout the Upper School progression, there is intentional focus on the key competencies of mathematical communication, collaboration, perspective-taking, modeling, and reasoning to cultivate a mathematical mindset and prepare them for diverse academic and real-world challenges.

CLASS IX

MATH CORE IX
Grade IX Math is Part I of an integrated sequence covering Algebra II, Geometry, and Data Science. It is also part of a semester-long interdisciplinary STEM program with Science and Computer Science IX. In this course, students explore mathematical concepts by analyzing and applying problem-solving techniques in various intra- and inter-disciplinary situations. They develop connections between algebraic and geometric principles, using right triangles and circles as the building blocks for geometry, trigonometry, vectors, families of functions, infinity, data modeling, and regression analysis. The course also goes beyond traditional boundaries by focusing on developing mapping techniques and geometric analysis of the cholera epidemic in 19th-century London. The course develops students' techniques for identifying and building strategies, mathematical modeling, and algorithmic and geometric processes. Students wrestle with abstract material and understand the necessary depth of thought to master concepts. Throughout the course, mistake-making is celebrated and harnessed as learning opportunities.

CLASS X

MATH CORE X
Math X is Part II of our integrated sequence covering Algebra II, Geometry, and Data Science topics. It is also part of a semester-long interdisciplinary STEM program with Science and Computer Science X. It is grounded in the conceptual understanding of a function. In this class, students will develop strategies for the analysis of relationships between variables, be introduced to the complex plane, and analyze the connections between quadratic, exponential, logarithmic, rational, radical and higher degree polynomial functions. Regression modeling will occur throughout the course and connect with other STEM courses. Matrices are introduced as a tool for problem solving. Students will be able to analyze and develop functions with visual, algebraic, and numeric representation and use various chemistry principles to practice this, such as the logarithmic pH-scale. A willingness to wrestle with abstract material will be emphasized in the course, as well as a necessity for depth of understanding to master concepts. Mistake-making will be celebrated and harnessed as learning opportunities.

CLASS XI

Precalculus

In Precalculus, students expand their mathematical knowledge by focusing on advanced applications of algebraic, geometric, and trigonometric concepts. The course emphasizes the analysis and application of mathematical techniques across interdisciplinary scenarios, fostering a deep understanding of function families, including polynomial, rational, exponential, logarithmic, and trigonometric functions. Students explore transformations and applications of these functions, culminating in mathematical models that connect theory to real-world phenomena.

The course delves into sequences and series as a foundation for mathematical progression and introduces students to intuitive concepts of limits and continuity to bridge the gap into Calculus. Students will analyze and develop functions through visual, algebraic, and numeric representations, applying techniques such as factoring, logarithmic rules, and polynomial division to solve complex problems. Through conceptual exploration, students will develop strategies for tackling abstract material and understanding connections between advanced mathematical topics. Mistakes are celebrated as integral to the learning process, fostering resilience and a willingness to engage deeply with challenging content.

CLASSES XI AND XII

Calculus

In Calculus, students embark on a rigorous study of differential and integral calculus, exploring foundational concepts, techniques, and real-world applications. The course begins with an in-depth examination of functions, limits, and continuity as the building blocks of calculus. Students then progress to the concept of derivatives, deriving rules for a variety of functions and their inverses, including polynomial, rational, trigonometric, logarithmic, and exponential functions. The curriculum emphasizes the relationship between differentiation and integration through the Fundamental Theorem of Calculus, providing students with a comprehensive understanding of how these tools are interconnected. Integration techniques are applied to solve problems involving area, volume, and summation, allowing students to model and analyze complex systems. Through the exploration of abstract concepts and practical applications, students develop strategies for mastering advanced mathematics. Mistakes are embraced as opportunities for growth, fostering resilience and a willingness to engage deeply with challenging material.

Advanced Calculus (B Level)

Departmental permission required

In addition to the coursework described above, topics include applications such as optimization and related rates problems, and volumes of solids of revolution.

Advanced Calculus (A Level):

Departmental permission required

In addition to the coursework described above, topics include polar coordinates, vector functions, parametrically defined curves, logistic curves, sequences and series, integration by parts and partial fractions, and elementary differential equations.

Advanced Math: Linear Algebra

Prerequisite: Advanced Calculus A and departmental permission

In Linear Algebra, students study matrix theory and linear systems. Through the axiomatic approach, they master the fundamental concepts of finite vector spaces, subspaces, bases, dimension, and linear transformations. They explore the important role Linear Algebra plays in many areas of mathematics, statistics, engineering, the natural sciences and computer science, using programs such as Octave, LaTeX, and MatLab when applicable. They develop their understanding through applications in statistics, physics, economics, genetics, differential equations, dynamical systems, and probability. Linear Algebra is a college-level course and demands a high level of abstract understanding and critical thinking from the students.

Standard/Advanced Statistics

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

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.

Collaborative Problem-Solving M

A collaborative problem-solving class where students work together on a small number of challenging problems over an extended period of time. Topics covered per seminar include combinatorics, number theory, geometry, algebra and inequalities. Students will acquire sophisticated problem-solving skills and a knowledge base that will allow them to successfully tackle the sorts of problems one sees on more challenging math contests such as the American Invitational Mathematics Examination (AIME). Although the prerequisites for this class are only algebra, geometry, and perhaps a bit of trigonometry, the comfortably-placed student will be a creative mathematical problem solver with an unusually solid mathematical background. The problems and topics covered in the class are challenging.

Chaos Theory M

Chaos theory, a cutting-edge field of math that took off with the advent of modern computing, has applications in everything from meteorology to the stock market and beyond. In this course, we will study fundamental ideas in chaos theory and the mathematical discipline of dynamical systems, an area of math focused on systems that change over time. Starting with the idea of iteration, we will explore how small changes in initial conditions can produce big differences in outcomes. We will come to understand a hallmark of chaos theory and dynamics: even the most simple and deterministic systems can produce unpredictable behavior and even the most complex systems can reveal some kind of order. Finally, we will see how these ideas apply to the beautiful world of fractals, including the Julia sets and the Mandelbrot set.

SCIENCE

The Science Department is dedicated to providing a robust and interdisciplinary approach to STEM education, developing students' competencies in science, technology, engineering, and mathematics with a focus on managing information, communicating ideas, problem solving, and critical thinking. We emphasize the integration of math, science, and computer science throughout our curriculum, striving to break down the silos between these disciplines and foster a more interconnected understanding of the world. Our core science classes lay a strong foundation, while our diverse array of semester-long elective courses allows students to explore specialized topics across a wide range of fields. These include, but are not limited to, organic chemistry, engineering, the genetics of cancer, and many other advanced topics. Additionally, we offer courses that appeal to students with an interest in the intersection of science and society, such as bioethics, public health, and psychology. For those with a creative flair, we also offer unique opportunities, like textile chemistry, where students can explore the environmental impacts of fast fashion. This comprehensive approach ensures that students are well-prepared for the ever-evolving landscape of modern science and technology.

CLASS IX

Science CORE IX: Biology

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

CLASS X

Grade CORE X: Chemistry

Prerequisite: Biology

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

CLASSES XI AND XII

Physics

Prerequisite: Biology and Chemistry

Physics is an algebra-based first-year physics course open to all students who have successfully completed other lab science courses. Physics and its applications surround us in our daily lives and we explore those connections by studying a broad range of topics and phenomena. Our major units of study include linear and non-linear kinematics, forces, momentum, energy, electricity, magnetism, and light. Physics emphasizes conceptual understanding and problem-solving while strengthening connections to mathematics and other branches of science. Experiential learning is central to our exploration of physics, and this is accomplished through hands-on laboratory activities and digital simulations.

ADVANCED COURSES

After completing the STEM CORE courses, interested students in Classes XI–XII can continue their studies in an advanced-level course. Advanced science courses involve more in-depth study, increased independent learning, and often a quicker learning process. Class XI students must enroll in physics to enroll concurrently in an advanced course in biology or chemistry.

Advanced Biology: Genetics of Cancer

Prerequisite: Biology and Chemistry

This semester-long, lab-based course investigates the central dogma of molecular biology and explores how mutation and erroneous cell signaling cause it to go awry in cancerous cells. Using the historical case study of Henrietta Lacks as a starting point, students will uncover mechanisms of carcinogen action, investigate microscopic techniques like karyotyping, and debate bioethical issues around modern cancer research. The course will culminate with a review of new targeted therapies for the treatment of cancer and their molecular mechanisms of function.

Advanced Biology: 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 water's chemical structure and properties. 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 is lab-intensive, emphasizing college-level lab methodology and skills.

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

Advanced Chemistry: Organic
Prerequisite: Chemistry
Organic Chemistry is the study of compounds containing carbon. This semester-long lab-based course covers the structure, bonding, and stereochemistry of these compounds, emphasizing functional group characteristics, structure determination by spectrometric methods, reaction mechanisms, and synthesis.

Advanced Chemistry: Analytical
Prerequisite: Chemistry
Analytical chemistry is the branch of chemistry dealing with measurement, both qualitative and quantitative. This semester-long lab-based course focuses on applications of instrumental chemical analysis techniques for environmental monitoring, forensics, and food science. Field sites in Central Park and the East River Field are used to compare data with our 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 fieldwork planning, sampling activity, sample preparation chemical analysis, interpretation of results, and reporting.

Advanced Physics: Modern
Prerequisite: Physics
What would it be like to travel at near-light speed? How is Schrodinger's cat both alive and dead at the same time? If you have ever wondered about these things and other paradoxes, then you have come to the right place. Modern physics is a semester-long exploration of key discoveries that have led to the development of relativity and the quantum world. We will study topics such as atomic structure, the wave-particle duality of light (and everything), quantum mechanics, special relativity, and general relativity. The student experience in modern physics involves more complexity and theory than our first physics offering. There will be experiential learning opportunities to examine how physics intersects with other subject areas, including statistics, medicine, astronomy, and engineering.

Advanced Physics: Topics in Physics with Calculus
*Prerequisite: Physics**
Students must also be enrolled in Calculus
Offered in the second semester, Topics in Physics with Calculus revisits physics concepts learned previously, going beyond the treatment of linear motion that occurs in all levels of calculus. We explore topics in physics by applying vector arithmetic and calculus concepts such as limits, differentiation, optimization, integration, and more. This course provides students who may be considering a major in physics or engineering opportunities to apply their knowledge to challenging problems such as optimizing projectile range, the messy motion of objects encountering drag, rocket propulsion, and more. The student experience in our course will be one of greater depth, with connections intentionally made between calculus and its applications in physics.
**With departmental approval, a student may take this course concurrently with Physics.*

Advanced Physics: Engineering
Prerequisite: Biology, Chemistry and Physics
In this hands-on project-based class, students explore applications of the core Upper School science disciplines: biology, chemistry, and physics through the lens of engineering. The engineering themes of iterative design, optimization with constraints, collaboration, and effective communication will be emphasized, and associated skills will be taught and developed.

Because the class is interdisciplinary, modules will focus on a project, or projects that combine multiple science disciplines, and specific emphasis will be placed on relating our designs to concepts studied in our prior (and concurrent) Upper School science classes, with a particular emphasis on physics. We will explore fields of engineering such as mechanical engineering, electrical engineering, chemical engineering, and environmental engineering through a variety of smaller and longer-term projects such as building vehicles and wind turbines, designing camera obscuras, building musical keyboards, optimizing processes such as coffee production, and designing air quality and flood water sensors that can be used in crowd-sourced. Science projects such as Citizen Science or a collaboration with an environmental engineering lab at NYU are also germane to this course of study.

Biotechnology
Prerequisite: Acceptance into ISRP
This intensive laboratory class prepares students for internships in research labs. Students will learn important techniques in molecular biology including gel electrophoresis, restriction enzyme digests, primer design, DNA amplification by polymerase chain reaction (PCR), nucleic acid extraction and purification, genetic engineering, bacterial/yeast transformations, DNA sequencing, protein isolation, protein purification and visualization, enzyme-linked immunoassays (ELISA), and chromatography. In the process, skills of troubleshooting, data analysis, and effective scientific communication will be emphasized. Students will also learn about the historical

development as well as ethical considerations and societal impacts of biotechnology. As a capstone, students will design and experiment to determine whether food products have been genetically modified.

SCIENCE ELECTIVES

Introduction to Bioethics
Prerequisites: 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 encourage the practice of reasoning and reconciling competing values.

Astronomy
This semester-long course presents an overview of the night sky and stellar astronomy. Topics studied include positioning, Earthly cycles, gravitation and planetary motion, properties of light, telescopes, the Sun, stellar evolution, and exoplanets. Students will be expected to do some math-based problem solving, produce a video on a topic that goes beyond the topics we study in class, and give a presentation to peers as part of a research project.

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

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

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

Public Health: Special Topics
Prerequisite: Biology; Public Health Survey 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.

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

Astronomy: The Night Sky M
What's your sign? You might be a Taurus, a Leo or a Pisces, but not an Ursa or Orion. Why not? The night sky has inspired us to look for patterns and seek the meaning in them culturally, mythologically, and both scientifically and non-scientifically from the dawn of civilization if not earlier. This semester-long course is an exploration of the celestial sphere, Earthly cycles, lunar and planetary motion, gravitation and light. The early history of astronomy and the discoveries that helped us to find our place in the solar system and cosmos are the focus. Students will complete a project on time keeping and lunar calendars, and there will

be some mathematical problem solving involving the scale of our cosmic neighborhood, measurements of space, time and periodicity.

INDEPENDENT SCIENCE RESEARCH PROGRAM (ISRP)

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

Science Seminar M

Required for ISRP students

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

MODERN LANGUAGES

The goal of the Modern Languages Department is to use the three languages we offer (French, Spanish, and Mandarin Chinese) to develop multilingualism, multiculturalism, and interpersonal, interpretive, and presentational communication skills in our students.

Across the four language skill areas of speaking, listening, reading, and writing, students learn to communicate in a foreign language, often for the first time. They learn to apply grammatical rules, identify patterns, and process unfamiliar language using context clues. They imitate native speech patterns and phonology in order to spontaneously interact with others, interpret written material, and present rehearsed speech. Students learn to make comparisons between their native language(s) and target language, appreciating differences of nuance and grammar that are reflected in the ways languages express similar concepts. They begin to appreciate the journey of lifelong learning they are embarking on, while fostering connections to those who speak the target language. Students begin to take perspective on how their own culture fits into the broader world, and how it interacts with the culture of the target language. They learn to make intercultural connections, while deepening both their own sense of belonging in their language community and their understanding of other cultures.

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

French 2

Prerequisite: French 1 or by placement

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

French 3

Prerequisite: French 2 or by placement

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

French 4

Prerequisite: French 3 or by placement

This is an excellent opportunity for students requiring more time to hone their writing and speaking skills. It is a natural progression from French 3, allowing students time to refine their 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.

French 5

Prerequisite: French 4 or by placement

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

Advanced French: Culture, Literature, and History

Prerequisite: French 5 or by placement

In this year-long advanced course, students study a variety of topics related to specific aspects of contemporary culture, society, French history, art, and some iconic works of literature. Examples of the aforementioned include: poetry of the Romantics such as Hugo and Lamartine, regional culinary specialities, Gothic architecture and the reconstruction of Notre-Dame de Paris, the history of Francophone Africa, 19th Century realism in art and literature, French New Wave cinema, immigration in France, etc. Students continue honing their speaking and writing skills on a variety of topics, thereby increasing their ability to express themselves on myriad subjects.

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. 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

Prerequisite: Spanish 1 or by placement

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

Spanish 3

Prerequisite: Spanish 2 or by placement

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

Spanish 4

Prerequisite: Spanish 3 or by placement

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.

Spanish 5

Prerequisite: Spanish 4 or by placement

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

Advanced Spanish: Culture, Literature, and History

In this year-long advanced course, students study a variety of topics related to specific aspects of contemporary culture, society, history, art, and some iconic works of literature of the Spanish-speaking world from Europe and the Americas.. Examples of the aforementioned include: poetry of the Golden Age, regional culinary specialities of the Caribbean, Catalan modernist architecture, Simón de Bolívar and the wars of South American independence, the films of Almodóvar, bolero and tango, the art of Goya and Velásquez, social realities in Central America and the Caribbean, Pre-Columbian civilizations, etc. Students continue honing their speaking and writing skills on a variety of topics, thereby increasing their ability to express themselves on myriad subjects.

CHINESE

Chinese 1
This introductory course in Mandarin focuses on the fundamentals of reading, writing, and speaking. As with any beginning language course, the focus is on practical skills relevant to the daily lives of students. Students in this course should prepare themselves for a considerable amount of memorization, especially given the use of characters in writing. This course is open to all students in Classes IX–XII who are beginning their study of Mandarin outside of the curriculum sequence begun in Middle School.

Chinese 2
Prerequisite: Chinese 1 or by placement
This course is a natural continuation of what was covered in Chinese 1. A significant amount of new vocabulary and characters is added to the curriculum, as students expand their grasp of Chinese grammar, idiomatic expression, and cultural references. Authentic readings are incorporated in the instruction to allow students to contextualize their understanding of written and spoken Mandarin.

Chinese 3
Prerequisite: Chinese 2 or by placement
In this course, special attention is given to the mastery of written Mandarin in a variety of social and academic situations. Authentic texts, including contemporary media used in everyday life in China, are incorporated to help students gain practical skills in Mandarin. In conversation, students are taught to speak more colloquially; furthermore, grammar becomes increasingly abstract.

Chinese 4
Prerequisite: Chinese 3 or by placement
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 have read. By the end of the course, it is expected that students will 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. At the end of the course, depending on performance and at the discretion of the department, the student may take Advanced Chinese or repeat a second level of this course.

Advanced Chinese
Prerequisite: Chinese 4 or with departmental approval
These advanced courses are designed for students who have achieved a high intermediate to advanced level of proficiency in Mandarin and wish to strengthen their spoken and written fluency. Students continue to develop their skills through readings, written practice, and discussions of a variety of topics as these relate to contemporary China and Taiwan. These topics range from the environmental, to the artistic, to pop culture, to the economic, to societal changes, etc. Students develop their skills through the study of authentic printed materials, recorded segments, or Chinese-language films. The student's work at both levels of study varies from written compositions to oral presentations in the target language.

CLASSICS

Latin teaching in the Upper School has two separate tracks: one for students without prior knowledge of Latin (Elementary and Intermediate Latin) and one for students who began their study of Latin in Middle School (Latin 2 - Advanced). 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.

The Latin program is supplemented by two other elective courses of study: Ancient Greek and Ancient Philosophy, both of which are offered as semester-long minors.

Elementary Latin
Through the reading method, this course will introduce students to the fundamentals of Latin morphology and syntax, and will build their vocabulary in preparation for reading authentic Latin texts. Emphasis will be placed on the etymological relationships between English or the Romance languages and Latin. Lessons on Roman history and culture will also form an important component of the course. Central areas of focus include critical thinking and problem solving, interdisciplinary connections, and the development of a growth mindset.

Intermediate Latin
The course is a continuation of Elementary Latin and will introduce students to more advanced concepts of morphology and syntax. Vocabulary acquisition and retention will be a main objective of the course in order to facilitate the transition from textbook Latin to authentic literary texts, such as Ovid, Seneca, and Pliny the Younger. Discussion of historical and cultural influences within these works are also featured. Central areas of focus include reading comprehension, literary analysis, contextual understanding, translation proficiency and interpretation, and the development of discussion and presentation skills and a growth mindset.

Latin 2
This course will begin with a review of basic grammar before the introduction of new advanced morphological and syntactical concepts. Continuous reading will be emphasized in preparation for authentic Latin literature. In the spring term, the class will study selections from poetry (Catullus and Ovid). Discussion of historical and cultural background and analysis of literary figures and meter will supplement the readings. Students will improve their reading and comprehension through progressively challenging Latin texts, deepen their understanding of Latin

grammar, learn to analyze and interpret Latin poetry by studying the themes, stylistic and rhetorical techniques used by Latin poets, and develop their critical thinking, research, discussion, and presentation skills.

Latin 3
This course will provide an overview of Latin literature and will study selections from prose (Caesar, Cicero, Sallust, and Apuleius) and poetry (Ovid). Students will work toward grammatical and lexical mastery and will build their reading skills. A considerable amount of time will be devoted to literary analysis and to grammar review in preparation for the following year's Advanced Latin courses. Students will deepen their understanding of Latin grammar, through the analysis and interpretation of Latin literature and poetry, and enhance their critical thinking, research, discussion, and presentation skills.

Advanced Latin: 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. This course represents the culmination of a student's study of Latin at Nightingale and offers the opportunity for deep analysis, interpretation, research, and presentation of learning.

CLASSICS ELECTIVES

Ancient Greek 1.1 M
This course introduces students to the foundational building blocks of Ancient Greek: the alphabet along with some basic vocabulary and grammar. It will include readings and exercises that aim to help students learn the language of Homer, Sappho, Sophocles, and Plato, and will address historical, cultural, and linguistic themes within these texts. The course will conclude with the Ancient Greek 1.1 Microproject, which challenges students to trace the history and evolution of a word from Greek into English, noting its transformation in use and application over time and space. Throughout, there is an emphasis on vocabulary building, language mechanics, interdisciplinary connections, understanding in context, and developing research, discussion, presentation skills and a growth mindset through the study of challenging content.

Ancient Greek 1.2 M
In this course, students will continue to expand their knowledge of the Ancient Greek language through readings and exercises, focusing on grammar and enriching their vocabulary. In addition, they will translate excerpts from texts in the original Greek and continue to engage with themes central to the history and culture of the Ancient Greeks. The course will conclude with a capstone project that students will develop with the guidance of the instructor and present to the class. Furthering the work of the introductory course, there is a continued emphasis on vocabulary building, language mechanics, interdisciplinary connections, understanding in context, and developing research, discussion, presentation skills and a growth mindset through the study of challenging content.

Ancient Greek 2.1/3.1 M
In this course, students will engage with the Ancient Greek language and culture through the translation, examination, and analysis of excerpts from such texts as the Homeric Hymn to Aphrodite, Plato's Symposium, Homer's Odyssey, and Sophocles's Antigone. Students will continue to study morphology, syntax, and vocabulary tailored to the demands of each text. Readings in English will focus on the contributions of the Ancient Greeks to literature, art, history, and science. The course will conclude with a capstone project that students will develop and present to the class.

Ancient Greek 2.2/3.2 M
In this course, students will continue to engage with the Ancient Greek language and culture through the translation, examination, and analysis of excerpts from texts such as Euripides' Medea and Bacchae, Sappho's Odes, Herodotus' Histories, and epics from the Homeric cycle. Students will continue to study morphology, syntax, and vocabulary tailored to the demands of each text. Readings in English will focus on the contributions of the Ancient Greeks to literature, art, history, and science. The course will conclude with a capstone project that students will develop and present to the class.

Ancient Philosophy 1 M
This course provides a wide-ranging introduction to ancient philosophy as it was conceived and practiced in the Greco-Roman world. Over the course of the semester, students will study the questions that Greek philosophers posed about the world around them, their answers to those questions, and, not least, how their answers influenced other aspects of their society, including religion and science. Our ambitious inquiry will begin with the natural philosophers or "Presocratics," who attempted to address the origins and the nature of the cosmos. From there, we will turn our attention to the figure of Socrates and the writings of Plato, which expand upon early theories regarding rhetoric and the immortality of the soul. Throughout the focus will be on developing students' critical thinking, philosophical argumentation, persuasive communication, and cultural competency as they take on, challenge, and defend radical ideas from ancient thinkers.

Ancient Philosophy 2 M
This course provides a different, also wide-ranging introduction to ancient philosophy as it was conceived and practiced in the Greco-Roman world. Over the course of the semester, students will study the questions that Greek philosophers posed about the world around them, their answers to those questions, and, not least, how their answers influenced other aspects of their society, especially ethics. Our ambitious inquiry will focus on what it means

to live a happy life. As such we will study Aristotle, Plato's student and Alexander the Great's tutor, who wrote on a range of topics from the natural sciences to poetics and politics. From there, the class will explore the Epicureans and the Stoics and how these Hellenistic thinkers transformed philosophy and influenced Western thought. Students will engage with the reading through homework responses, class activities, discussions, and lectures. They will also work on an independent research project to be presented in the final two weeks of the course. Throughout the focus will be on developing students' critical thinking, philosophical argumentation, persuasive communication, and cultural competency as they take on, challenge, and defend radical ideas from ancient thinkers.

COMPUTER SCIENCE

The Upper School Computer Science Department works to develop three primary competencies in its students: programming, systems thinking, and a creative, problem-solving and growth mindset. From introductory through upper level courses, students learn to write code to manipulate data and to perform analysis, as well as to present their findings through dynamic visualizations. Students develop logical thinking and problem-solving skills and are introduced to frameworks for understanding the interconnectedness of data, technology, and broader societal concerns. Throughout the arc of the program, students are asked to grapple with increasingly complex and abstract material in a cycle of design, feedback, and iteration, necessitating commitment, focus, and the ability to work through setbacks.

CLASS IX

Programming & Data Analysis
This year-long course introduces students to the fundamentals of data analysis and artificial intelligence through hands-on learning and real-world applications. In the first semester, students explore Python programming, focusing on data structures, analysis, and visualization using libraries like Pandas, while incorporating tools like ArcGIS StoryMaps. These tools are introduced within the context of the STEM IX Ghost Map curriculum. The second semester shifts to the foundations of AI, where students learn about generative and predictive models, gaining practical experience with machine learning frameworks through tools like TensorFlow. Along the way, students develop and train their own AI models, deepening their understanding of how AI works. The course also examines the broader societal impacts of AI, fostering critical thinking about its ethical and cultural implications. By the end of the year, students will be well-equipped with technical skills and a thoughtful perspective on the evolving role of data and AI in our world.

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

CLASS X

Computer Science X: Programming Fundamentals M
This minor course introduces students to the fundamentals of text-based programming, circuitry, and electrical systems through a physical computing framework centered on Arduino microcontrollers and the C++ programming language. The course emphasizes hands-on learning to explore the integration of hardware and software using Arduinos. Students will learn to build and program circuits using inputs, outputs, and sensors, combining hardware and software to create interactive systems. Students will also use programming concepts to collect, analyze, and visualize data from the world around them.

CLASSES XI AND XII

Advanced Programming I
This semester-long advanced course focuses on Java and aims to equip students with a comprehensive understanding of programming. Students will cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures. The start of the course will cover essential concepts such as primitive types, if-statements, and iteration before moving on to more advanced object-oriented programming concepts such as recursion and inheritance.

Advanced Programming II
Prerequisite: Advanced Programming I
As a continuation of Advanced Programming I, this course deepens students' understanding of Java programming with a focus on more advanced topics such as classes, objects, file input/output, inheritance, and recursion. Students will apply their knowledge through projects that involve designing and implementing larger programs, encouraging creativity and problem-solving. The course highlights best practices in program design, debugging, and testing while continuing to build students' confidence in working with increasingly complex coding tasks. By the end of the semester, students will have developed the skills to approach advanced programming challenges with independence and critical thinking.

Design and Digital Fabrication II M
Prerequisite: Design and Digital Fabrication I
This minor elective is open to students who have completed Design and Digital Fabrication I. Over the course of a single semester, students will engage deeply with the iterative design process, transforming initial ideas into fully realized projects. Through repeated prototyping and refinement, they will develop their concepts using a variety of tools and technologies, including laser cutters, 3D printers, AR

and VR systems, and physical computing devices. The design journey is enriched by critiques, field trips, historical discussions, and in-class activities, which expand students' understanding of design principles and their applications. By the end of the course, students will not only have created tangible outcomes but also gained insights into the broader impact of design in everyday life.

Advanced Robotics and Engineering
Prerequisite: Advanced Programming I
This semester-long course immerses students in the exciting world of robotics engineering through hands-on exploration of engineering principles and programming techniques. Students will begin by understanding the fundamentals of robot design, including chassis construction, drivetrain systems, and manipulator integration. They will then dive into programming with Java, learning to create both autonomous and driver-controlled robot functions while integrating advanced concepts. This course equips students with the technical skills, critical thinking, and collaboration necessary to excel in robotics engineering and beyond.

HEALTH AND WELLNESS

The Health Education Department strives to prepare students to navigate and care for their personal health. We approach health as a multi-dimensional and essential part of an individual's identity, and encourage students to give attention to each area of their well-being. We focus on skill-building as a key component of managing personal health. As students move through our program, they demonstrate their increasing ability to manage more complex realistic health scenarios for students their age.

CLASS IX

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

CLASS X OR XI

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

CLASS XII

Personal Health Beyond the Blue Doors 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 healthcare on college campuses, navigating appointment-making, living with a roommate, drinking culture on college campuses, sexual and reproductive health in adulthood, and more. Student input and current issues in wellness are considered throughout the duration of the course.

Mind Over Matter: A Course on Stress Management M
This course is designed for the busy high school senior looking to develop their stress-management skills. Students learn about the science behind stress before exploring and practicing health-enhancing stress management strategies. Students analyze the impact of stressors on personal health, build a self-care toolbox, evaluate the effectiveness of a range of stress management strategies, and demonstrate the ability to apply these strategies both in and out of the classroom.

Beyond Barriers, Binaries, and Bad Takes M
This course builds on and deepens previous health class discussions of gender, sexuality, anatomy, and the context in which we receive and internalize this information. Students analyze and work through both personal and socio-political barriers, explore and unpack binary approaches to health concepts, and utilize media literacy skills to approach "bad takes" in the age of misinformation, especially as they pertain to health advice, social media, relationships, and our bodies.

VISUAL ARTS

ELECTIVE OFFERINGS

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

CLASS IX

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

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

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

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

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

CLASSES X–XII

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

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

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

Photography I M
Students master the use of the manual SLR through a series of assignments designed to address composition, proper exposure, and the creative use of depth of field. Additionally, students learn basic black-and-white darkroom skills and are given a general introduction to the history of photography. Contemporary trends in the medium are also introduced through illustrated lectures, reading assignments, and visits to galleries and museums.

Photography II M
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.

CLASSES XI AND XII

STUDIO MAJORS

Studio Art Majors are offered to students who have taken at least two semesters of elective art courses and want the opportunity to refine their skill set and create a substantial portfolio with the guidance of a member of the art department. Students are encouraged to express their interest to the relevant instructor in advance of registering. Students may register for Studio Art in one of four areas of concentration: ceramics, drawing, painting, or photography.

Ceramics
Ceramics for academic credit offers an immersion in ceramic history, techniques, aesthetics and practice. Some options for more in-depth processes include creating plaster molds and slip casting, making custom decals, and working with underglaze chalk, china paint and luster. Every student will present their work in a completed portfolio accompanied by a written narrative at the end of each semester.

Drawing
Drawing for academic credit offers an advanced studio experience for a student who desires to specialize in a drawing medium and/or explore an in depth study of specific content. An emphasis will be placed on developing original content and drawing from live observation and imagination. Students may work in a range of drawing materials and should anticipate completing multiple finished works. Student work will be displayed and accompanied by an artist statement at the end of each semester.

Painting
Painting for academic credit offers an advanced studio experience and in depth study of painting. Students will be asked to create a series of works based on a theme and focus on developing mastery in a medium of their choice. Oil, acrylic and watercolor are options. An emphasis will be placed on developing original content and students will need to work from live observation or imagination. Student

work will be displayed and accompanied by an artist statement at the end of each semester.

Photography
Photography for academic credit is an option for the student who has demonstrated a commitment to the medium and wants to continue to hone their skills and build a thematic portfolio that reflects a personal vision rather than a collection of assignments. A written statement about the work is submitted along with the portfolio at the end of each semester. Experimental projects, combined media, digital imaging, and alternative processes are possible areas of exploration.

ART HISTORY

CLASSES XI AND XII

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

PERFORMING ARTS

We believe that performing arts are fundamental to the human experience and integral to students' education and growth. The vision of the Performing Arts Department is for Nightingale students to be emboldened through the creative process so they can connect with themselves and engage with curiosity and compassion within the classroom and in the global community. To that end, in Theater, Music, and Dance, students are offered the opportunity to: experience diverse genres, artists, repertoire, and instructional practices; cultivate habits that foster patience, resilience, and critical thinking; emphasize personal and collective growth through meaningful collaboration; and explore the role of performing arts in challenging conventional boundaries. Throughout every Performing Arts course, students have the chance to explore the process of and practice creating and performing, and responding and connecting to art.

THEATRE

Theatre 1 M
This semester-long course is an intensive workshop in theater arts and focuses on voice and movement, improvisation, and scene study. Students are encouraged to participate in a fall production working either on stage or backstage. This course also emphasizes New York's role as a main resource to the theater community and includes attendance at Broadway and Off-Broadway plays.

Theatre 2 M
Prerequisite: Theatre 1
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 work on scenes in classical drama from Greek tragedy to Shakespearean comedy. This course is taught by a professional guest actor.

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

Spring Musical M
Each spring, interested Upper School students have the opportunity to audition for and present a 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

CLASSES IX–XII

Upper School Chorus M
Upper School Chorus is a non-auditioned singing group. The ensemble performs at the annual winter and spring concerts as well as the Interschool Choral Festival. Through their study, students learn the physiology of the voice and gain an understanding of how fundamental vocal technique applies to various styles of singing. Literacy skills include applying solfege and rote teaching to learn repertoire, thus expanding students' knowledge of how music is taught around the world. Repertoire is chosen from a wide variety of styles, periods, cultures, and genres. Students receive arts credit for participation in Upper School Chorus.

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

Upper School Guitar M
The Upper School Guitar program offers a series of courses designed to meet the needs and interests of all students. Beginning students develop a basic skill set and build techniques suitable to a wide range of styles. Subjects covered include learning basic chords and accompaniment styles, reading guitar tablature, and playing guitar introductions, riffs, and solos. Students with previous experience learn

more advanced chords and accompaniment styles, simple solo playing, and basic chord theory. Students with a strong background play music in a variety of styles to help refine and strengthen their technique. All interested players will be placed in an appropriate section after consultation with the instructor. Students receive arts credit for participation in any guitar class.

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

CLASSES X–XII

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

Upper School Chamber Chorus is an auditioned singing group. This highly selective group (14-20 singers) performs challenging repertoire, including Renaissance, Baroque, contemporary classical, and vocal jazz pieces that are suited to a small, advanced ensemble. The singers serve as ambassadors of Nightingale at school functions, regularly perform around the city, and participate in NYSSMA, the New York State School Music Association festival. In recent years, Chamber Chorus has toured both domestically and internationally. Students receive arts credit for participation in Upper School Chamber Chorus.

DANCE

The Dance program centers cultural awareness, artistic expression, the development of an artistic/creative voice, contextualizing Contemporary dance and performance, and critical reflection and analysis. 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 Elective: Dance and Politics M
This course will explore dance that reaches beyond convention into the political category. All the artists covered in this course are alive and still working in the field. Through video, readings, informal talks, and classes with guest artists, this class introduces dance that reaches into political expression to comment on contemporary issues. This class is designed to combine watching videos, reading and/or hearing about the background and reception of these dance projects, sharing our responses, and ultimately creating and participating in a similar dance project.

PHYSICAL EDUCATION

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

Mind/Body
Students will explore yoga, Pilates, meditation, myofascial-release techniques, and other methods that explore the connection between the mind and body. Self-reflection and stress reduction techniques allow students to explore methods of self-regulation and build resilience.

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

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

ATHLETICS

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

Fall Season
JV and Varsity Volleyball | Varsity Cross Country
Varsity Soccer | Varsity Tennis

Winter Season
JV and Varsity Basketball | Varsity Indoor Track
Varsity Squash | Varsity Swimming

Spring Season
Varsity Badminton | Varsity Lacrosse
Varsity Softball | Varsity Track and Field

LIBRARY

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

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

The library's diverse collection reflects the community's wide range of interests, perspectives, abilities and identities. Student-driven book clubs and the Library Advisory Board give students leadership opportunities to engage in library programming and collection development. Our goal is to cultivate curious, independent, and agile thinkers who will thrive in a college environment, equipped with skills for life.

VISUAL EDUCATION

The visual education program is an essential component in Upper School classes. Works of art are incorporated 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.

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.

OFF-CAMPUS STUDY

Nightingale is deeply committed to providing opportunities for its students to engage in global studies and develop comfort and confidence as members of an interconnected, global world. 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 optional trips have included travel to China, Cuba, Iceland, France, Italy, Spain, South Africa, the Dominican Republic, and Colombia.

CLASS X

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

CLASS XI

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

COLLEGE COUNSELING

The college process is, first and foremost, an educational one: We encourage our students to explore new ways of envisioning themselves and think about future options they may not have considered before. It is also highly personal: finding the right college is about finding a good match. The rigorous academic program at Nightingale ensures that each of our graduates will be prepared to succeed in a challenging undergraduate curriculum.

Each year, 100% of Nightingale seniors are accepted to colleges designated as selective and most selective in the U.S. and abroad. College counseling begins with course selection in the Upper School to ensure that each student completes the courses recommended for college admission and graduation from Nightingale. The college office also assists with standardized testing recommendations and requirements for domestic and international colleges and universities. Throughout their Nightingale years, students are encouraged to challenge themselves in the classroom, explore and develop passion and expertise in their extracurricular interests, and 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 officially begins in the junior year. Students and their parents/guardians work with the college counselors to develop a list of colleges that are appropriate for each student. Through individual meetings and college counseling classes, the counselors assist students with:

- Understanding the application process
- Researching colleges
- Essay writing
- The financial aid process
- Interview prep

All of this is done in service of our overarching goals of encouraging independence, developing mature decision-making skills for all of our graduates, and allowing each student to feel confident in their final college decision.