



Upper School Course Catalog¹

¹ Some of the courses listed in this catalog are offered on a rotating basis. Please refer to the Course Request Sheet for your grade level to see what is being offered in the upcoming academic year.

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Graduation Requirements

THE **MINIMUM** LOAD OF CLASSES EACH SEMESTER IS EQUIVALENT TO 20 OF 28 BLOCKS² PER ROTATION

It is highly recommended that students carry 22-24 blocks per rotation.

English	4 years ³ including specific courses in grades 9 and 10: Justice, Power, and Revenge; The Ties that Bind (and Unbind)
History	<u>Classes of 2024 and 2025</u> : 3/12 year requirement, including The Development of Our Global World, Historical Methods: Research, Writing & Presentation/Citizenship and the American Experiment, and United States History <u>Classes of 2022 and 2023</u> : 3 year requirement including The Development of Our Global World and United States History
World Language	Completion of a 300 level course in one language, or a 200 level course in two different languages
Arts	1 year in Performing or Visual Arts
Math	3 years - Algebra I, Geometry, and Algebra II
Lab Science	3 years - Chemistry or Integrated Chemistry, Biology, and a third lab science of any kind
Physical Education	4 Semester Classes <ul style="list-style-type: none"> ● Class of 2021- two semester classes ● Class of 2020 - one semester class
Community Service	9th/10th grades - 15 hours of service 11th/12th grades - 15 hours of service
Freshman Seminar	9th grade Health/Social-Emotional Learning Course (meets 2 blocks - Fall or Spring semester)
Successful Completion of Bancroft Senior Cooperative (BSC)	

For the purpose of college admissions, students should take the most challenging curriculum available while demonstrating strengths in those classes. Additionally, they should continue their studies for four years in any subject whenever possible.

² A full-time course is equivalent to 4 blocks

³ A year is equivalent to a 4 block class both semesters

English

[refer to end of document for course sequence map]

Justice, Power & Revenge

EN-100 (offered 2021-2022)

“I have always found that mercy bears richer fruits than strict justice.”

-- Abraham Lincoln

What is the difference between mercy and justice? How does power - or a lack thereof - influence one's choice to be just or merciful? In a discussion-based classroom, freshmen develop critical reading and critical writing skills to venture toward independent understanding of challenging texts. Through an intensive writing unit during the first quarter, students learn the foundations of analytical writing by practicing creating claims, identifying textual evidence, and structuring a cohesive argument. Students read multi-genre texts that emphasize themes of justice, revenge, and ethical decision-making, which include *Montana 1948*, *The Odyssey*, a choice-based literature unit, short stories, and poetry. Throughout the year, explicit instruction using the writing process allows students to master new skills in both analytical and creative endeavors. Ninth graders also regularly study grammar and contextual vocabulary.

4 blocks - full year

Prerequisites: *None. This course is required for all freshmen*

The Ties that Bind

EN-200 (offered 2021-2022)

“You can cut the ties that bind but not without losing a part of yourself.”

-- Lisa Unger, author

What are the ties that bind? Family, friendship, nationality, ethnicity, religion, tradition. Good leadership can bring people together, but the thirst for power can also corrupt. By exploring both fiction and non-fiction texts, prose and poetry, this discussion-based class invites students to analyze the implications of leadership and power in both government and family structures. The readings span across several centuries and continents: *Macbeth*, *Things Fall Apart* (post-colonial Africa), *How the Garcia Girls Lost Their Accents* (Latin America), and *Persepolis: The Story of a Childhood* (the Middle East). A choice-based literature unit rounds out the course. Students engage in the writing process through a variety of assignments designed to advance their critical writing skills; other projects are designed to showcase student creativity, develop their individual voices and bring in an outside audience. Consistent grammar and vocabulary instruction and assessment are also integral to the course.

4 blocks - full year

Prerequisites: *Justice, Power & Revenge. This course is required for all sophomores*

AP English Language and Composition

EN-350 (offered 2021-2022)

In this survey course, students experience each movement in American literature by reading a variety of texts, including classic Transcendentalist essays, modern poetry and novels such as *The Great Gatsby* and *Their Eyes Were Watching God*. The goals of this class are to introduce students to the rich literary history of this “wide, green and beautiful U.S.A.” (to borrow a phrase from Raymond Chandler); to help students understand how people use the techniques of language to, as Joseph Conrad writes, “make you hear, make you feel, ... make you see;” and to improve students’ ability to think critically and express complex thoughts in speech and writing. All of these goals advance students’ understanding of the written and spoken word and, along with rigorous practice writing on demand essays and answering multiple choice questions, prepare them for the Advanced Placement English Language and Composition Exam in May.

4 blocks - full year

Prerequisites: *Department approval*

AP English Literature and Composition

EN-450 (offered 2021-2022)

This course focuses on literature not only from the Western tradition but also from other cultures and parts of the world. Connections between texts and units develop students’ understanding of how humanity has been expressing itself through literature over the centuries and how, although emerging from definite cultural and historical moorings, the artists present visions of humanity that move beyond their place and time and transform our understanding of ourselves. Therefore, besides continually working to construct a definition of “culture,” the course also examines how writers explore articulations of the “self” and frameworks for the building of nations and communities. Students analyze the major genres of poetry, drama, the short story and the novel; accordingly, they develop critical thinking, reading, and writing skills in assignments ranging from discussion facilitation to research papers, such as the independent Senior Thesis research project. Consistent practice of writing on demand essays and answering multiple choice questions prepare the students for the Advanced Placement English Literature and Composition Exam in May.

4 blocks - full year

Prerequisites: *Satisfactory performance in AP Language and Composition and/or department approval*

Fall English Selectives for Grades 11 and 12

Challenged, Banned, Censored: Who Gets to Decide?

EN-501 (offered 2021-2022)

“Insensitive.” “Unsuitable.” “Anti-government.” These are just a few reasons books -- such as the *Harry Potter* and the *Captain Underpants* series -- are banned. In fact, in 2020 there were 156 challenges to materials used in schools. Is this a version of cancel culture?! Is banning books an effective tool to ensure educational materials remain suitable? Is it a vehicle to limit intellectual freedom? Who gets to decide what is appropriate for students to read? Can a book be valuable even if it offends? These questions will drive this course as we explore the history of censorship and read some challenged or banned books; you will also have an opportunity to select some of your own titles. The culminating project of the course will be a display/presentation/outreach of some sort that the class designs together in order to educate our community.

Possible texts: *The Absolutely True Diary of a Part-Time Indian* by Sherman Alexie, *All American Boys* by Jason Reynolds and Brendan Kiely, *George* by Alex Gino, *The Curious Incident of the Dog in the Night-Time* by Mark Haddon, poetry and essays.

Gender Perceptions

EN-502 (offered 2021-2022)

As we grow up, our culture provides us with “scripts” that we enact, sometimes without realizing it. What are the gender scripts we follow and how might they affect us across the sexuality and gender spectrum, whether we are cis, hetero, or LGBTQ+? In this course we will examine how literature reflects back our cultural understanding of femininity and masculinity, while also wondering how literature can help to reveal the possibilities of gender experience and expression. We will read a selection of novels, short stories, poems, and non-fiction (essays, news, memoir) that reveals the spectrum of gender roles and experiences, while asking us to question how these roles are constructed, and why.

Possible texts: Short stories (“Girl” by Jamaica Kincaid, “The Swimmer” by John Cheever); non-fiction and essays (“I Want a Wife” by Judy Brady Syphers, “Boys to Men and the Women who Love Them” by Ryan Brown); films (*Boys Don’t Cry*; *Hedwig and the Angry Inch*); poetry (“Mad Girl’s Love Song” by Sylvia Plath); student-selected novels

Blowing it All Up: Disruptive Texts

EN-503 (offered 2021-2022)

Have you been frustrated that the literature we read in English class is not representative of your own experience, or is too narrowly focused on one type of story? In this course, we will look at how writers unsettle traditional texts, giving voice to the voiceless, and recasting heroes as flawed human beings. Text disruption comes in two flavors: on one hand, writers choose famous works of literature and reveal the perspective of underrepresented characters (in *The Penelopiad*, Odysseus’s wife, Penelope, tells her side of the story, adding a female perspective to a largely male-oriented narrative). On the other, a writer might choose to “re-present” the experience of groups that have traditionally been stereotyped (in *Kindred*, Octavia Butler uses time travel to transport a contemporary black woman to the antebellum South). We will read a selection of fiction and nonfiction, novels, essays,

short stories, and poems that recast “traditional” stories and help us to participate in the experiences of those who have been marginalized. What would you like to disrupt with *your* writing?

Possible texts: Selections from indigenous writers like Layli Long Soldier and Sherman Alexie; novels like *Kindred* by Octavia Butler and *The Red Tent* by Anita Diamant; paired poems like “The White Man’s Burden” and “The Brown Man’s Burden”

Speculative Fiction: Our Future Selves

EN-504 (offered 2021-2022)

“If you find this world bad, you should see some of the others.” So begins science fiction author Philip K. Dick’s 1977 essay about speculative fiction. But what exactly characterizes this genre? Generally speaking, speculative fiction is an umbrella term for stories involving imaginative elements like the supernatural, the fantastical, or the futuristic. Just how fictional are these stories, though? Is it possible that we are, in fact, headed for a bleak future about which countless authors have warned? Or can we heed these authors’ warnings and redirect the course of humanity? That’s quite a tall order -- maybe not *entirely* feasible for a single course -- but together we will engage with a variety of texts that paint a picture of our future selves, as inspiring or as frightening as they may be.

Possible texts: *The Handmaid’s Tale* by Margaret Atwood, *Brave New World* by Aldous Huxley, *The Road* by Cormac McCarthy, and a number of short stories by authors like Ray Bradbury, Shirley Jackson, Kurt Vonnegut, and Nana Kwame Adjei-Brenyah. In addition, we’ll watch select episodes from *Black Mirror* and examine critical essays that all illustrate our potential future selves.

The List: New York Times Best Sellers

EN-505 (offered 2021-2022)

School takes up a lot of time. Juggling homework, studying, sports, extracurriculars, and other commitments likely leaves you with little to no time to simply *read*. Wouldn’t it be exciting if there were an English class designed entirely around your love of reading, where YOU had full control over the texts you read AND the assessments you completed? Well, look no further than *The List*.

In this course, our goal is to create a community of readers whose focus is on contemporary texts and current voices: what are people drawn to reading? what features make a memoir or novel a bestseller? You will propose your own reading list for this course and then, through a series of self-designed assessments, demonstrate your understanding of these texts and how they contribute to a broader conversation about modern society. Maybe you’ll film a video essay, produce a movie trailer, present a TED Talk, write a book review, add a chapter in the author’s style...the possibilities are endless! This approach is much easier said than done, though -- motivation, initiative, and a deep love for reading and discussing are paramount. Does this sound like you? If so, join us!

Second Semester Courses for Grades 11 and 12:

American Voices

EN-310 (offered 2021-2022)

Strength lies in differences, not in similarities
~ Stephen Covey, American educator and author

In this course, students deepen their appreciation for and understanding of what makes America, America by focusing on the myriad and diverse voices that contribute to our national makeup. Through a series of fiction and nonfiction texts that highlight the distinct perspectives of Black, Indigenous, Asian-American, and European-American authors -- including articles, podcasts, and poems that reflect current and ongoing national conversations -- students expand their knowledge of the stories and experiences that define America. Juniors continue to practice close reading skills by identifying salient passages and discovering writers' slants and then expressing their ideas through both analytical and creative assessments. Systematic vocabulary and grammar preparation round out the course.

4 blocks - Spring semester

Prerequisites: Fall semester course; sophomores by department approval

Composition & Argumentation

EN-410 (offered 2021-2022)

In this course, students will develop their composition skills, specifically in the areas of argumentation and inquiry. This course will culminate with a concentrated focus on the Senior Thesis, through which students will choose their own areas of interest to explore and write an 8-10 page essay synthesizing myriad sources to support their argument. After completing their research paper, students will identify broader audiences and/or platforms for their work that can include presenting their findings to a class in another department, writing a letter to their elected officials, creating an infographic poster to hang around the school, etc.

4 blocks - Spring semester

Prerequisites: Fall semester course

History

[refer to end of document for course sequence map]

The Development of Our Global World

HI-100 (offered 2021-2022)

This course examines selected themes in World History, from the 1400's to the modern age. Major topics include the Golden Age of Islam, the Renaissance, the Reformation, the Scientific Revolution and the Enlightenment, the emergence of modern political ideologies, nation-building and Imperialism in the nineteenth century, Industrialization, the World Wars, and the post-WWII era. Students will gain a broad, global perspective of the historical eras that had the most significant impacts on the creation of the modern, interconnected world. This course highlights the diversity of historical experiences and cultures through the lenses of different genders, races, or related cultures, and reiterates the connections and relevance that these factors have on the daily lives of global citizens. Students will work to develop the skills of a historian, including careful reading, critical thinking, primary-source analysis, and analytical writing.

4 blocks - full year

Prerequisites: None. Required for all freshmen.

Historical Methods: Inquiry, Writing, & Presentation

HI-201 (offered 2021-2022)

Understanding research methodology is one of the key components in developing oneself as a student of history. This course sets out to give students the opportunity to gain important research and writing skills in the historical field, all while exploring and engaging with exciting topics of their choice. At the semester's end, each individual will complete both a written paper and a comprehensive presentation on their topic, sharing with the class the culmination of their findings as well as the credibility of their approach.

4 blocks - Fall semester

Prerequisites: *The Development of Our Global World*

Citizenship & the American Experiment

HI-202 (offered 2021-2022)

"We the People" -- the opening words of the US Constitution reflect the importance of each citizen in the US government. Students will learn about their roles and responsibilities as citizens of the US, and develop understanding about the formation, structure, and role of democracy in the United States. We will explore: What is the purpose of government? What is democracy? What are the roles of the three branches of government? How is the Constitution a living document? What is the role of political parties? How do campaigns and elections work? What are the rights and responsibilities of an American citizen? Students will examine these topics through class activities and discussions of historical and current events and by reading a wide variety of materials.

4 blocks - Spring semester

Prerequisites: *The Development of Our Global World & Historical Methods: Inquiry, Writing, & Presentation*

Full Year History Courses for Grades 11 and 12

AP European History

HI-450 (offered 2021-2022)

AP European History is designed to prepare students for the AP test given in the spring. The course provides students with an understanding of the complex forces dominating the European historical experience between 1400 and 2000 and their impact upon world culture, values and institutions. The course is a demanding one with a substantial amount of nightly reading, synthesis of an extensive range of factual and conceptual material, a great deal of analytical writing and an expectation of daily participation of class discussion. Sitting for the AP exam in May is required if enrolled in this course.

4 blocks - full year

Prerequisites: *United States History or Advanced United States History, junior or senior standing and department approval.*

Research and Historical Inquiry

HI-600 (offered 2021-2022)

Research and Historical Inquiry is a class for motivated students who seek an opportunity to craft an independent history research project on a topic of their choice. In this class, students will strengthen their critical thinking, research, and problem-solving skills, and have the opportunity to submit their projects to the National History Day competition! In class, students will be asked to discover and explore primary and secondary sources to create either a paper, performance, documentary, website, or exhibit that fits within the framework of the NHD annual theme. Students are required to participate in the Regional Massachusetts History Day competition in early March, where they will receive feedback from a panel of judges. Some students could possibly advance to the Massachusetts State History Day competition in early April, and from there to the national level of the National History Day competition in June. Regardless of competition outcomes, upon completion of this class all students will gain early exposure and practice in college-level reading, research, communication and time management skills.

4 blocks - full year

Prerequisites: *United States History or Advanced United States History, junior or senior standing and department approval.*

Fall & Spring Selectives for Grades 11 and 12

Aristocrats, Autocrats, and Oligarchs: A Russian History Survey Course

HI-501 (offered 2021-2022)

This one semester course will use the discipline of historical study to understand the dramatic social, political, and economic shifts of the Russian Nation. We will explore the impact of centuries of Czarist rule and how that contributed to the Russian Revolution. We will investigate the dictatorship of the proletariat under the Union of Soviet Socialist Republics (USSR), and the reasons for its eventual decline. We will probe the origins of the modern Russian Federation and the “new” leadership of the state. Using historical and contemporary texts, this class will endeavor to provide students with an understanding of the historical role of Russia as well as its place in a modern, global context.

4 blocks - Fall semester or Spring semester

Prerequisites : *United States History or Advanced United States History*

Brown, the Board, the Ballot, and the Bullet: Civil Rights in the USA

HI-502 (offered 2021-2022)

Thought to have formally begun in 1954 with the landmark Brown vs. Board of Education case, the American Civil Rights Movement has perhaps been the most persistent and prevalent social and political movement of the 20th century and into today. This course offers a cohesive and encapsulating look into the ever-changing role of race, equity, and representation in the U.S. through its exploration of Black sub-movements, leadership models, successes, and setbacks in the ongoing fight for racial equality. Gain a deeper understanding of our most pressing modern issues through this dive into the American past.

4 blocks - Fall semester or Spring semester

Prerequisites : *United States History or Advanced United States History*

Freedom Struggles in the Colonized World

HI-503 (offered 2021-2022)

This one semester course will explore how colonized peoples across the world won independence from European colonial rule and created dozens of new nation-states across Africa and the Middle East. Through case studies of Algeria, Vietnam, India, and Israel/Palestine, with comparisons to other movements and places, students will learn about the role of colonialism, decolonization, and human rights in shaping current conflicts around the world today.

4 blocks - Fall semester or Spring semester

Prerequisites : *United States History or Advanced United States History*

La Lucha Sigue: Making of the Modern Americas

HI-504 (offered 2021-2022)

While many high school history courses overlook the development of Latin America in favor of a more Eurocentric worldview, this course strives to provide a comprehensive look into the past and present of South & Central Americas, as well as the island nations of the Caribbean. With specific in-depth vignettes exploring the complexities of Cuba, Chile, and Venezuela, "La Lucha Sigue" aims to analyze historical and political patterns as they continue to impact Latin American peace and prosperity into contemporary times.

4 blocks - Fall semester or Spring semester

Prerequisites : *United States History or Advanced United States History*

What in the World? An Exploration of Contemporary Current Events

HI-505 (offered 2021-2022)

This one semester course delves into modern global issues to learn and understand the whole picture, not just the sound-bytes. Students explore the role of the media in disseminating information and also the responsibility of citizens in searching for truth. There will be ample time to discuss, in depth, topics chosen by the class. A team-based debate will provide public speaking experience and the opportunity for in depth research of issues of interest to the students.

4 blocks - Fall semester or Spring semester

Prerequisites : *United States History or Advanced United States History*

World Language - French

[refer to end of document for course sequence map]

French I

WL-100F (offered 2021-2022)

In French I, students acquire the basic structures of the French language and high-frequency vocabulary and expressions in an immersive target language environment focused on communication skills and proficiency. French I students frequently interpret music, stories, articles, photos and videos and they use actions, gestures, drawings or words they do know to express what they want to say without reverting into English. They are encouraged to take risks and own the language because it is developed in real-life, authentic situations.

4 blocks - full year

Prerequisites: None

French II

WL-200F (offered 2021-2022)

In this course, students will reinforce the foundations and continue the development of the four communication skills of speaking, reading, understanding and writing. There is great emphasis on the acquisition of new vocabulary and sentence structures around themes such as hobbies, free time, sports and entertainment, daily routines, clothing, and technology. The immersive setting enables grammar to be taught in context and practiced in authentic ways. Students also continue to broaden their knowledge of French-speaking cultures and civilization through readings and videos.

4 blocks - full year

Prerequisites: French I

French III

WL-300F (offered 2021-2022)

In French III, students use the target language in activities that embed structures and vocabulary in real-life contexts while developing competence in all modes of communication, including interpersonal communication, interpretive reading, interpretive listening, presentational speaking and presentational writing. Vocabulary and advanced grammatical structures are learned implicitly and in various contexts, such as food, education, relationships, and the environment. Students improve their proficiency in French by interpreting culturally authentic materials such as films, articles, infographics, songs, websites and comic books.

4 blocks - full year

Prerequisites: French II

French III/IV Honors

WL-350F (offered 2021-2022)

The French III/IV Honors course prepares students to reach level V courses in the following year (AP French and Contemporary French Culture). At an accelerated pace, students are encouraged to express themselves in the target language to develop proficiency and develop a better understanding of French and French-speaking cultures. They read the novel *Le Petit Prince* by Antoine de St-Exupéry, short stories, and magazine articles from authentic sources. The writing required of French III/IV students ranges from expository to creative in nature. Throughout the year, emphasis is placed on listening, speaking, reading, and writing skills through individual and group work.

4 blocks - full year

Prerequisites: A- or higher in French II and department recommendation

French Seminar: Connecting with the World in French

WL-400F (offered 2021-2022)

Students explore and interact with the Francophone social, educational, and professional worlds. They practice reading, listening, writing, and speaking through email interactions, online profiles, skits, and television programs. Projects include creating fictional Facebook profiles, writing professional cover letters and résumés, researching exchange programs and emailing organizations, launching new creative products and promoting them in a similar manner to the Shark Tank TV show. Their final project consists of creating videos illustrating the thematic units covered in the course.

4 blocks - Fall semester

Prerequisites: French III

French Seminar: People and Places

WL-400F (offered 2021-2022)

Students explore relationships with people and the world we live in. They practice reading, listening, writing, and speaking through emails, letters, videos, and readings. They learn how to describe their family and community, express desires, give relationship advice, write personal letters, and make travel plans. They engage in listening comprehension activities and create skits presenting real-life situations. Students also explore current environmental challenges, looking at their origins and reflecting on potential ways to resolve them. As a team, they create a public service announcement video presenting what Bancroft is doing and/or should be doing to prevent or limit climate change.

4 blocks - Spring semester

Prerequisites: French III

French Seminar: Current Events in Conversation

WL-401F

Students discuss everything from daily activities to in-depth social debates, all in French. Beyond the focus on current events (newspaper articles, podcasts and newscasts), students also explore a variety of informal topics such as French culture, life experiences, politics, or any other topic of interest to them and their classmates. Some particular grammar points will be reviewed based on the individual needs of the students.

4 blocks - Fall semester

Prerequisites: French III

French Seminar: Global challenges in the Francophone World

WL-401F

This course offers a view into the Francophone World through various themes: social justice and equity, economic issues, environmental issues, health issues, human rights, nutrition and food safety, as well as peace and war. Students will explore the concept of “Francophonie”, its pillars, and what its future may look like. There will also be a focus on the influence of the French language in contemporary history, as well as on French colonization. Students will reflect on current global challenges through reading, listening, and watching contemporary materials related to the latter themes, in order to expand their cultural literacy and facility with the French language. Assessments will take the form of student-driven projects, presentations, and creative writing.

4 blocks - Spring semester

Prerequisites: French III

Contemporary French Culture

WL-410F (offered 2021-2022)

In this advanced course, students will deepen their knowledge of French culture by observing changes in contemporary society, mainly through the lens of film. France is the birthplace of cinema and French cinema has remained very well acclaimed and respected all around the world. Other media such as graphic novels, commercials, short documentaries, archives, artworks, photos, and articles, will also be used to further analyze cultural themes. Performances in this course will be assessed through essay writing, class discussions, presentations, productions of short films, and other creative projects.

4 blocks - full year

Prerequisites: *French III/IV Honors, or AP French Language and Culture, or one year of 400-level Seminars and department recommendation*

AP French Language and Culture

WL-450F

Students engage in the preparation for the AP French Language and Culture exam learning new vocabulary from various readings, watching videos, listening and recording podcasts. English will only be used when discussing the nuts and bolts of the exam, such as study skills, exam review techniques, and format of the exam. All grammar forms will be reviewed, as well as verb tenses, and constructions. The following themes will be discussed throughout the academic year: families and communities, personal and public identities, contemporary life, global challenges, science and technology, beauty and aesthetics.

4 blocks - full year

Prerequisites: *A- or higher in French III/IV Honors and department recommendation; or one year of 400-level Seminars and department recommendation*

World Language - Latin

[refer to end of document for course sequence map]

Latin I

WL-100L (offered 2021-2022)

In Latin I, students follow the adventures of the real Pompeian family of Lucius Caecilius Iucundus by reading Latin stories that gradually build from simple sentences to complex selections. Utilizing the Latin textbook series Cambridge Latin, the course builds reading fluency from the start and prepares students to eventually read unadapted classical text. Students not only learn the fundamental Latin constructions including all declensions, conjugations, and tenses, but they also gain insights into many aspects of Roman life in the first century such as family, dining, entertainment, enslavement, religion, and politics. Projects and interactive lessons on daily life allow the students to explore cultural topics in more depth.

4 blocks - full year

Prerequisites: None

Latin II

WL-200L

In Latin II, students continue to forge ahead in the Cambridge Latin series, furthering their study of grammatical concepts with a concentration on refining their translation and reading comprehension skills. In addition to the text, students read novellas throughout the year to gain proficiency. They also do some of their own creative writing. Life in the provinces of Alexandria and Roman Britain serves as the cultural backdrop of this course, and there are opportunities for students to investigate these cultures more fully in independent projects.

4 blocks - full year

Prerequisites: Latin I

Latin III

WL-300L (offered 2021-2022)

In Latin III, students will return to imperial Rome and complete their readings in the Cambridge Latin series. They will also read more advanced novellas and transition to reading unadapted passages from a variety of Roman authors. Cultural topics include the city of Rome itself, Roman marriage, religious beliefs and social dynamics. There will continue to be opportunities for students to pursue their interests and deepen their knowledge in a variety of independent projects.

4 blocks - full year

Prerequisites: Latin II

Latin Seminar: Love and Friendship

WL-400L (offered 2021-2022)

In this course, students will look at what Romans valued in their relationships, from friendly to romantic. The poems of Catullus about both his friends and his relationship with his love Lesbia as well as selections from Cicero's *De Amicitia* will give us much insight into the lives and feelings of these seemingly remote figures. Students may be surprised to see how easy it can be to relate to these Roman writers. Creative projects will give students many outlets to explore these themes and make meaning for themselves.

4 blocks - Fall semester

Prerequisites: Latin III

Latin Seminar: Women in the Greco-Roman World

WL-400L (offered 2021-2022)

In this course, students will read a variety of myths and historical accounts in which women are the focus. Starting with Pandora, the first woman created, we will trace how the perception of both the nature and the roles of women in the ancient Greco-Roman world developed and how that legacy continued through the ages up to our time. Beauty, familial relationships, and power are some of the themes that will guide our study.

4 blocks - Spring semester

Prerequisites: *Latin III*

Latin Seminar: Ovid's *Metamorphoses*

WL-401L

This course will allow students to read in the original Latin many of the stories they may have read as children, such as Orpheus and Eurydice, Apollo and Daphne, and Daedalus and Icarus among others. We'll take a close look at the overarching themes in the work that are relevant and relatable to us today and also at the enduring influence these tales have had in art and literature up to contemporary times. Students will also learn about poetic stylistic conventions and learn to scan dactylic hexameter. There will be opportunities for creative projects as well.

4 blocks - Fall semester

Prerequisites: *Latin III*

Latin Seminar: Divine Intervention

WL-400L

What beliefs and perceptions did the Romans have of their gods? We've all heard that Cupid used his bow and arrow to make people fall in love, but did the Romans really believe that? Where did they think the gods came from? What powers did the gods have? How did they think gods and humans interacted and for what purposes? Were oracles truly the voice of the gods? We'll answer all these questions through a study of ancient religious practices and a variety of readings in unadapted Latin about the Olympians and their dealings with humans.

4 blocks - Spring semester

Prerequisites: *Latin III*

Latin Seminar: Heroes and Villains

WL-401L

In this course, students will read stories in unadapted Latin of those praised for their virtue and those vilified for their vice. Early historical figures such as Lucretia and Cincinnatus were looked upon for centuries as models of ideal Romans, while Catiline and Nero stand out as examples of those viewed as having brought ruin to Rome. We'll also look at mythological heroes to learn what these meant to the ancients. We'll find rich discussions comparing these ancient models to those of our own times. We'll also see how our own nation was directly inspired by Roman heroes and virtues.

4 blocks - Spring semester

Prerequisites: *Latin III*

AP Latin

WL-450L

This course will follow the syllabus as outlined by the AP course description book in preparation for the AP exam in May. It is a rigorous course, requiring a great deal of translation along with supplementary reading on pertinent historical information. Also included are an introduction to meter and figures of speech. Grammar

review will be given as needed. Caesar's Gallic Wars will be the focus of study for the first semester and Vergil's epic, the Aeneid, will be our concentration in the second. Sitting for the AP exam in May is required if enrolled in this course.

4 blocks - full year

Prerequisites: *A- or higher in Latin III and department recommendation; or A- or higher in one year of 400-level Seminars and department recommendation*

Advanced Studies in Latin Literature

WL-500L

This course is designed for those students who have successfully completed the Advanced Placement Latin –Vergil and Caesar course. It will include a survey of the literature and leadership of Rome from the time of Julius Caesar through Nero. Latin readings will be tailored to student interest and offer a good balance of prose and poetry. Authors may include, among others, Catullus, Cicero, Augustus, Horace, Petronius and Tacitus. In addition to the Latin, students will read several secondary sources on these important figures and their times. Students will have opportunities to explore their own interests and research in tandem with our study.

4 blocks - full year

Prerequisites: *AP Latin and department recommendation*

Roman Gardens: Design and Build

WL-600 (offered 2021-2022)

Romans loved their gardens. In this design/build course, we will explore the significant role that gardens played in the daily lives of people all over the Roman Empire and then we will design and build our own Roman-style garden. Since Bancroft is already the host to one Roman garden, this one will be built off campus at a site which is still to be determined and which focuses on children and learning (e.g. library or elementary school). Students will be responsible for researching and designing all facets of the garden, including plant selection, artistic elements, architectural features, and hardscape. A field trip to Tower Hill Botanic Garden is planned. No knowledge of Latin is required for this course. The course will meet twice per rotation for the entire school year and is open to Juniors and Seniors only.

2 blocks - full year

Prerequisites: *Junior or senior standing*

World Language - Mandarin

[refer to end of document for course sequence map]

Mandarin I

WL-100M (offered 2021-2022)

In this beginning-level course, students first learn the pronunciation system of Mandarin Chinese (“Pinyin”) as well as the basics of the Chinese writing system, represented in characters. Students learn to start simple conversations on a specific set of topics, and gradually immerse themselves in Mandarin during class. They will have opportunities to hone their language skills through mini projects such as creating a family tree and storybooks, writing diaries and performing skits. Chinese culture is introduced through subject matter in the texts and supplemented by videos, crafts, and other activities.

4 blocks - full year

Prerequisites: None

Mandarin II

WL-200M (offered 2021-2022)

Mandarin II students will be exposed to increasingly complex vocabulary and sentence structures and will explore more diverse topics, such as dining, travel, weather, sports, dating etc. They are expected to use only the target language in class. Emphasis is placed simultaneously on all four major linguistic practices—speaking, listening, writing, and reading. Students will be required to produce longer typed compositions. Cultural aspects of the language are emphasized through presentations, discussions, skits, hands-on activities and other projects throughout the year.

4 blocks - full year

Prerequisites: Mandarin I

Mandarin III

WL-300M (offered 2021-2022)

This course builds on Mandarin II and will continue to emphasize proficiency in everyday situations. Students will engage in meaningful communication using more complex structures, vocabulary and idiomatic expressions. Students will also give oral reports and debate on more complicated topics. Authentic news, storybooks, and dialogues in movies and TV shows will be used in addition to the textbook dialogues. Finally, the class will also incorporate a deeper discussion and exploration of Chinese culture.

4 blocks - full year

Prerequisites: Mandarin II

Mandarin Seminar: Culture Through Tales & Traditions

WL-400M

China’s folklore is part of the country’s proud tradition, with hundreds of stories beloved by both young and old. Many of the folk tales and fairy tales are used to teach certain admirable characteristics in individuals. These values include moderation, the value of promises, respect for one’s elders, why you should follow the ways of the culture, justice and injustice, and the power of wisdom. In this course, students will read a variety of fables, myths and legends, love stories, and wisdom of classical philosophers. They will explore Chinese culture associated with these stories, engage in discussions about traditional Chinese values, and compare them with those in the United States and other cultures.

4 blocks - Fall semester

Prerequisites: Mandarin III

Mandarin Seminar: Biographies & Pop Culture

WL-400M

In this course, students will continue to develop their Mandarin proficiency in all four aspects of the language and gain a deeper understanding of the modern Chinese culture through the study of a variety of celebrity figures. Students will learn about world-renowned personalities from fields such as sports, music, and fashion through books, news reports, TV shows, and movies. Celebrities may include Jay Chou, Ang Lee, Yao Ming, and Vera Wang. Students will also choose a celebrity of their interest to research and create a biography on their own as a final project.

4 blocks - Spring semester

Prerequisites: *Mandarin III*

Mandarin Seminar: Social Dynamics in Chinese Culture

WL-400M (offered 2021-2022)

In this course, students will explore all types of relationships in China to learn what influences and shapes them and also compare these relationships with those in the United States and other cultures. Specifically, they will learn to use Mandarin to describe and discuss interactions with a significant other, parents, friends, teachers and potential employers. Chinese movies, TV shows, short stories and news articles will be some of the resources for learning, and students will engage in projects like debates, skits, mock interviews and other similar activities to increase their oral and cultural proficiency.

4 blocks - Fall semester

Prerequisites: *Mandarin III*

Mandarin Seminar: China: Past, Present and Change

WL-400M (offered 2021-2022)

China is a country with a long history of 5000 years and has gone through drastic changes in recent decades. Students in this course will first learn more about modern China, such as its geography, provinces and cities, and attractions. Then they will travel back in time and explore China's long history including the important Qin and Tang dynasties. Towards the end of the semester, students will examine how China has changed in recent decades after the Reform and Opening-up Policy in 1978, and what those changes mean to Chinese people. All the materials will be introduced in Mandarin. Students will conduct independent research and complete projects as major assessments in this class.

4 blocks - Spring semester

Prerequisites: *Mandarin III*

World Language - Spanish

[refer to end of document for course sequence map]

Spanish I

WL-100S (offered 2021-2022)

In Spanish I, students acquire the basic structures of the Spanish language and high-frequency vocabulary and expressions in an immersive target language environment focused on communication skills and proficiency. Spanish I students frequently interpret music, stories, articles, photos and videos and they use actions, gestures, drawings or words they do know to express what they want to say without reverting into English. They are encouraged to take risks and own the language because it is developed in real-life, real-interest situations.

4 blocks - full year

Prerequisites: None

Spanish II

WL-200S (offered 2021-2022)

Spanish II is a comprehensive course reviewing and building on the language acquired in Spanish I. Through short stories, videos, short films, novels, songs and more students continue to build their knowledge of the cultures of the Spanish-speaking world, as well as their vocabulary, and their ability to narrate and to describe in past, present, and future. Frequent in-class paired and small-group conversations help students build their interpersonal speaking skills, and in-class writing activities help them build their presentational writing skills.

4 blocks - full year

Prerequisites: Spanish I

Spanish III

WL-300S (offered 2021-2022)

In Spanish III, students develop their proficiency in Spanish through communicative activities that embed more advanced structures and vocabulary in real-life contexts while developing competence in all modes of communication, including interpersonal communication, interpretive reading, interpretive listening, presentational speaking and presentational writing. Students also interact with music, stories, TV shows, articles, photos and videos.

4 blocks - full year

Prerequisites: Spanish II

Spanish III/IV Honors

WL-350S (offered 2021-2022)

The Spanish III/IV Honors course prepares students to take the AP Spanish Language course in the following year. At an accelerated pace, students expand their vocabulary and acquire the advanced structures of the language by interacting with each other on a wide variety of topics, reading novels, stories and articles, listening to music and watching videos. Throughout the year, emphasis is placed on listening, speaking, reading, and writing skills through individual and group work.

4 blocks - full year

Prerequisites: A- or higher in Spanish II and department recommendation

Spanish Seminar: Trailblazers in the Spanish-Speaking World

WL-400S

Who are the people who forged their own path and changed the course of history? Who are the current change-makers in the Spanish-speaking world? Hispanic American and Spanish leaders in music, politics, medicine, literature, film, sports, humanitarian work and more have been, and continue to be, on the forefront of change in our world. Students will read biographies and watch documentaries of famous Latino figures in history, and will keep up with current events and the people involved in them. The class will be conducted solely in Spanish, and students will be expected to participate actively in discussions. Written book reviews, descriptive and narrative writing, student blogs, and individual class presentations will be just a few of the class activities and assessments.

4 blocks - Fall semester

Prerequisites: *Spanish III*

Spanish Seminar: 20th Century through Spanish-Language Film

WL-400S

Using film as our medium, students will study some of the major events of the 20th Century in Spain, Cuba, Chile, Mexico, and Bolivia. Students will watch 4-5 feature length films during the semester, learning about the historical and cultural references surrounding each film. In addition to viewing the films, a variety of sources including short stories, documentaries, and articles will be a springboard for discussion and research. The class will be conducted solely in Spanish, and students will be expected to participate actively in discussions. Written film reviews, video presentations, descriptive and narrative writing will be just a few of the class activities and assessments.

4 blocks - Spring semester

Prerequisites: *Spanish III*

Spanish Seminar: Current Events in the Spanish-speaking World

WL-400S (offered 2021-2022)

In this course students will learn about the most recent political and cultural events in both Spain and Latin America. A variety of sources will be used including newspapers, online media, newscasts, and other resources provided by the teacher. The class will be conducted solely in Spanish and students will present weekly oral presentations in Spanish, as well as write personal commentaries about chosen articles. This course will not only increase students' awareness of the world around them, but also give them the opportunity to heighten their Spanish skill in all four areas of speaking, reading, listening and writing.

4 blocks - Fall semester

Prerequisites: *Spanish III*

Spanish Seminar: Challenges and Triumphs

WL-400S (offered 2021-2022)

In this course students will explore the themes of challenge and triumph in Spanish and Latin-American history and culture. Topics will range from personal struggles and victories to those that affect a much larger group in a timeline from the distant past up to contemporary times. Resiliency, strength and courage will be a common thread in the study. A variety of sources including short stories, articles, journals and films will be a springboard for discussion and research. The class will be conducted solely in Spanish and give students the opportunity to heighten their Spanish skill in all four areas of speaking, reading, listening and writing.

4 blocks - Spring semester

Prerequisites: *Spanish III*

AP Spanish Language and Culture

WL-450S (offered 2021-2022)

According to the College Board, “AP Spanish Language and Culture is equivalent to an intermediate level college course in Spanish. Students cultivate their understanding of Spanish language and culture by applying interpersonal, interpretive, and presentational modes of communication in real-life situations as they explore concepts related to family and communities, personal and public identities, beauty and aesthetics, science and technology, contemporary life, and global challenges.” Authentic sources including podcasts, news reports, short stories, articles, films and more help students continue to improve their language skills and their cultural competence. Frequent in-class writing and speaking activities will help them polish their language skills in preparation for the AP exam in May. Sitting for the AP exam in May is required if enrolled in this course.

4 blocks - full year

Prerequisites: *A- or higher in Spanish III/IV Honors and department recommendation; or one year of 400-level Seminars and department recommendation I*

Advanced Studies in Spanish: The U.S. Latinx Experience

WL-410S (offered 2021-2022)

This immersive course is designed for advanced learners. Students will increase their knowledge and fluency in the Spanish language both through select readings of contemporary Latinx-American literature and through research regarding current events in Hispanic countries and local and international Hispanic figures. Students will analyze narratives of various Hispanic communities in the US to learn about bilingualism, code-switching, life on the border, and immigration experiences. In addition, students will collaborate on the *Latino History Project of Worcester's* final catalog, for which they will transcribe oral interviews, summarize and categorize information for Historians from Worcester State University and College of Holy Cross.

4 blocks - full year

Prerequisites: *Completion of AP Spanish Language and Culture and department recommendation.*

Computer Science

Computer Science Principles

CS-100 (offered 2021-2022)

This course provides students with an introduction to fundamental principles of Computer Science, including an understanding of the history of the modern computer, the hardware and operation of computers and computer networks, the Internet and issues of cybersecurity, and the digital representation and storage of data. Students will learn to create useful programs implementing simple algorithms and will study basic software design principles using the Processing programming language. Exposure to career possibilities and discussion of ethical issues relating to computers will also be important threads in this course. A laptop is required for this course.

4 blocks - Fall semester

Prerequisites: None

Web Design and Programming

CS-101 (offered 2021-2022)

This course is appropriate for students who have no previous knowledge of web development as well as those who have some introductory experience. Through a series of projects students will learn the basic web development technologies HTML, CSS and JavaScript. As students build their skills the projects will grow in complexity to include user interaction. The course will then explore intelligent ways to add dynamic content, using Application Programming Interfaces (APIs) to connect to sites such as Google Maps and Facebook. Students complete the course by creating a web application of their own design. A laptop is required for this course.

4 blocks - Spring semester

Prerequisites: None

AP Computer Science

CS-200 (offered 2021-2022)

AP Computer Science A emphasizes object-oriented programming methodology with an emphasis on problem solving and algorithm development and is meant to be the equivalent of a first-semester college course in computer science. The programming language for the Computer Science AP exam is Java. A laptop is required for this course. Sitting for the AP exam in May is required if enrolled in this course.

4 blocks - full year

Prerequisites: Computer Science Principles or instructor permission

Programming in C# with Unity

CS-305 (offered 2021-2022)

C# is a powerful and versatile programming language that can be applied in a wide array of application areas. If you seriously want to learn how to build games and applications in Unity you will increase your success if you first have a solid foundation in C# programming. This course will present the core concepts of programming in C#, including variables, classes, and object-oriented programming. Also in this course, you will develop the understanding you need to design and develop the functionality necessary to create your own 2D games and applications in Unity. This class is not a beginner course. It is recommended for students who have a solid understanding of an object-oriented programming language.

4 blocks - Fall semester

Prerequisites: AP Computer Science or equivalent knowledge of OOP programming.

Game Programming in Unity

CS-310 (offered 2021-2022)

This is the course you have been waiting for. Game programming in Unity. It is time to bring your programming skills to the table and create the next world-class 3D game in Unity. Up your game mechanics techniques, build physics engines into your game, teach the computer to problem solve and use AI to create the ultimate virtual competitor. Design your own music and graphics for use in your games. This course is intended for those who are ready to show the world the power of game development. *Note: This class will require time outside the classroom for code development.*

4 blocks - Spring semester

Prerequisites: C# Programming for Games and Applications

Physical Computing

CS-400 (offered 2021-2022)

Physical computing refers to the design and construction of physical systems that use a mix of software and hardware to sense and respond to the surrounding world. Such systems blend digital and physical processes into toys and gadgets, kinetic sculpture, functional sensing and assessment tools, mobile instruments, interactive wearables, and more. This is a project-based course that deals with all aspects of conceiving, designing and developing projects with physical computing: the application, the artifact, the computer-aided design environment, and the physical prototyping facilities. The course is organized around a series of practical hands-on exercises which introduce the fundamentals of circuits, embedded programming, sensor signal processing, simple mechanisms, actuation, and time-based behavior. The key objective is gaining an intuitive understanding of how information and energy move between the physical, electronic, and computational domains to create a desired behavior. The exercises provide building blocks for collaborative projects which utilize the essential skills and challenge students to not only consider how to make things, but also for whom we design, and why the making is worthwhile.

2 blocks - full year

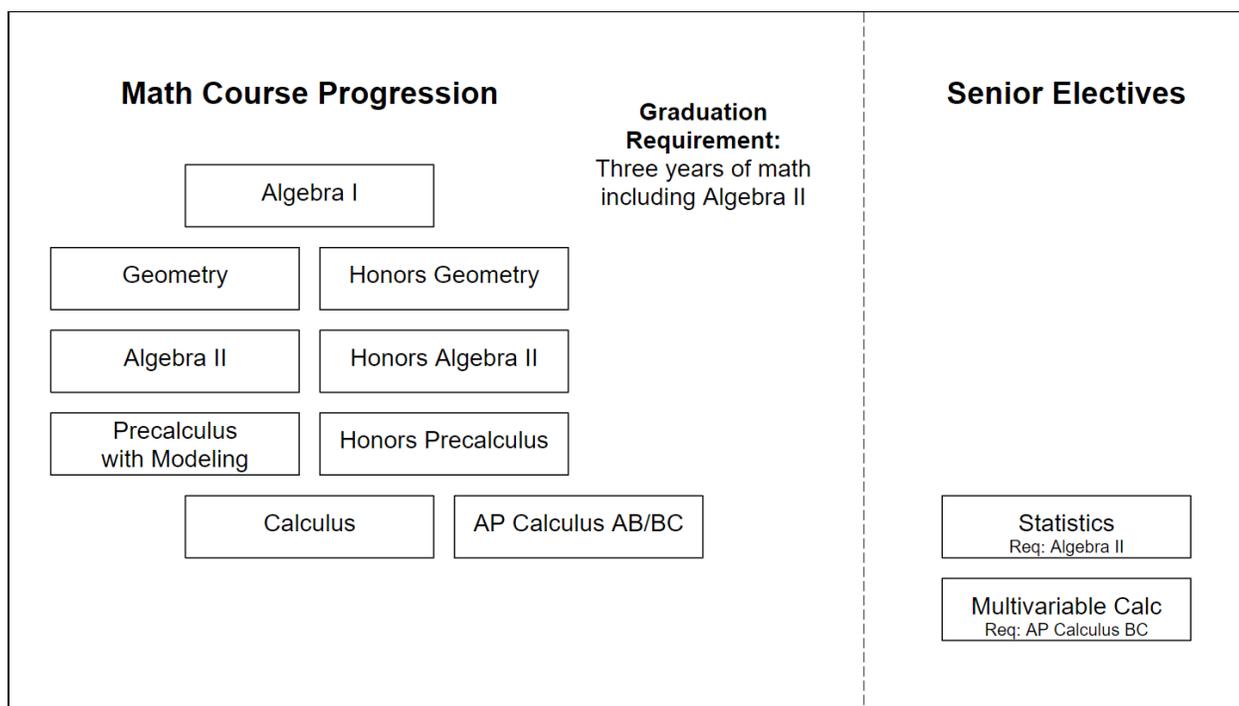
Prerequisites: Computer Science Principles or other programming experience

Mathematics

The course designations, expectations, prerequisites, and recommendations below are designed to inform students and parents to give students the best opportunity to own their learning and find their own individual success.

Course Progression

At Bancroft, we aim to provide students with an ideal progression of courses that allows them to grow as mathematicians at a developmentally appropriate pace. Students enter the math curriculum at many different points, but we have structured the course progression to be flexible enough to allow for student choice, challenge, and opportunity.



Course Designations and Expectations

Honors/AP Course Designation

Courses with an Honors or AP designation are designed to meet the needs of a learner who thrives in an **independent** learning environment.

- The classes move at an accelerated pace and introduce new ideas in a more theoretical and abstract form.
- Students in these classes are expected to have a thorough mastery of material from prior courses and consistently take responsibility for their own mathematical progress and learning.
- Select homework problems may be reviewed during class time.
- Many problems are introduced which require students to investigate, analyze, synthesize, evaluate, and solve unique and unfamiliar problems with minimal guidance.

- Proofs are embedded within the curriculum, and students will be asked to establish mathematical identities with minimal guidance.
- Certain concepts and procedures are introduced and studied for the sake, enjoyment, and advancement of mathematics.

Regular Course Designation

Courses with no additional designation are designed to meet the needs of a learner who thrives in a **guided** learning environment.

- The classes move at an appropriate pace and introduce new ideas with a balance of concrete and abstract approaches.
- Students in these classes are expected to have a working knowledge of material from prior courses and take an increased responsibility for their own mathematical progress and learning.
- Select homework problems will often be reviewed during class time.
- Many problems are introduced which require students to investigate, analyze, apply concepts, and solve problems with moderate guidance.
- Proofs are included in the curriculum where appropriate, and students may be asked to establish mathematical identities with guidance.

Course Prerequisites and Recommendations

The course prerequisites constitute what background the mathematics department feels is necessary for student success in each course.

- If a student is taking a regular class, we recommend students move to the next regular class in the course progression upon successful completion of the class.
- If a student is taking an honors class, we recommend students move to the next honors class in the course progression if they achieve a grade of B+ or higher.
- If a student is taking a *regular* class and is interested in moving to the next *honors* class in the course progression, we recommend that the student have achieved an A in the regular class and is required to receive a teacher recommendation.
- Students who do not meet these general prerequisites may still be recommended for classes, and department approval supersedes these prerequisites.
- Classes beyond the minimum graduation requirements may have alternate prerequisites.

Calculators

Students should have a calculator for use in class and at home. Although phones and calculators contain myriad calculator options for most casual use cases, Bancroft recommends the TI-Nspire CX CAS graphing calculator for all students, as it will be useful for all courses at Bancroft as well as all College Board exams. Please note, though, that a graphing calculator is not required for our Algebra I, Geometry, and Honors Geometry courses, so families may opt to wait and purchase this calculator once their student is enrolled in an Algebra II course.

Accelerating Through the Course Progression

Students occasionally look to learn mathematics outside of the classroom environment, either through summer classes, after-school programs, private tutoring, or independent study. The mathematics department generally discourages this practice; most students are better served taking a full-year course at Bancroft rather than a condensed or incomplete experience elsewhere. However, students can request a placement review to gain pre-approval for outside study to advance in the course progression, either during the school year or over the summer. In most instances, students will be required to take an end-of-study exam to determine whether they may move to the next class at Bancroft.

To begin this process, please fill out a Math Placement Acceleration Form no later than May 15 for summer study or one month prior to the start of a school year program. Students who do not submit a form will not be permitted to change their math course or level at a later date. The form will be reviewed by the mathematics department, the department chair, and the Head of Upper School, and the student will be notified of the decision in a timely manner.

Course Descriptions

Algebra I

MA-050 (offered 2021-2022)

This course covers fundamentals of algebra such as solving and graphing linear equations and inequalities, solving and graphing quadratic functions, multiplying and factoring binomials, and simplifying and solving rational expressions and equations. Applications to everyday life are embedded. Coverage will include operations with integers, decimals, percentages, and fractions and rational numbers.

4 blocks - full year

Prerequisites: *Successful completion of a pre-algebra course.*

Geometry

MA-101 (offered 2021-2022)

In this course, students explore geometric relationships with a wide variety of tools, including compasses, computers, and graphing calculators. Instead of just memorizing rules and definitions, students perform constructions, measure figures, observe patterns, discuss their findings, write their own definitions, and formulate their own geometric conjectures. The course has a heavy focus on critical problem-solving skills that help students become self-motivated, independent thinkers. Geometric proofs are included in the curriculum where appropriate.

4 blocks - full year

Prerequisites: *Successful completion of Algebra I.*

Honors Geometry

MA-151 (offered 2021-2022)

In Honors Geometry students will attempt to construct the fundamental concepts and ideas in geometry in a logical and systematized fashion. Proofs are given center stage as our primary tool for discovering and verifying mathematical truths. Topics covered include inductive and deductive reasoning, parallel lines and planes, congruence and similarity, transformations, right triangles and the Pythagorean Theorem, right triangle trigonometry, polygons, analytic geometry, circles, area and volume.

4 blocks - full year

Prerequisites: *B+ or above in Algebra I and teacher recommendation.*

Algebra II

MA-200 (offered 2021-2022)

Algebra II is a full year course which continues the study of Algebra through both concrete and real world applications to prepare for further study in mathematics. Students build up an understanding of functions through multiple representations (graphs, tables, symbolic manipulation, and analysis) which are utilized to grow and communicate core concepts and skills. Topics that are standard in the course include functions, transformations, quadratics, exponentials, function operations, radicals, logarithms, polynomials, rationals, and matrices. A TI-Nspire CX CAS handheld is required for this course.

4 blocks - full year

Prerequisites: *Successful completion of Algebra I and Geometry/Honors Geometry.*

Honors Algebra II

MA-250 (offered 2021-2022)

Honors Algebra II is a full year course which continues the study of Algebra through abstract and real world applications in preparation for more advanced mathematics courses. Students build an understanding of functions through multiple representations (graphs, tables, symbolic manipulation, and analysis) which are utilized to grow, communicate, and cultivate core concepts and skills. Topics include functions, function transformations, quadratics, matrices, complex numbers, exponentials, function operations, radicals, logarithms, polynomials, and rationals. Additional topics may include an introduction to trigonometric functions, sequences and series, continuity, and systems of non-linear equations. The TI-Nspire CX CAS handheld is required for this course.

4 blocks - full year

Prerequisites: *B+ or above in Honors Geometry.*

Precalculus with Modeling

MA-300 (offered 2021-2022)

Precalculus is a full-year course designed around functions and their properties; the fundamentals of trigonometry; and probability and combinatorics. Each topic is viewed through the lens of mathematical modeling, which is using mathematics to represent various phenomena and learn about them. Topics include representations and analysis of data, regression and using functions as models, transformations of graphs and data, trigonometric functions and the unit circle, right triangle trigonometry, probability, combinatorics, and inferential statistics. Students will learn to use Google Sheets and Desmos to analyze data, and will also use a TI-Nspire CX CAS calculator (which is required for the course).

4 blocks - full year

Prerequisites: *B- or above in Algebra II.*

Honors Precalculus

MA-350 (offered 2021-2022)

Honors Precalculus is a full-year course designed for students to establish strong connections between advanced concepts, procedures, and theorems by engaging with the course material through multiple representations (graphical, algebraic, numerical, and analytical). The first third of the year will be spent studying trigonometry, with topics including the unit circle; trigonometric functions and their graphs; inverse trigonometric functions and their graphs; and trigonometric identities, formulae, equations, and applications. The middle third of the year will focus on alternate representations, including parametric equations, polar equations, complex numbers, DeMoivre's Theorem, vectors in two and three dimensions, and matrices. The final third of the year will focus on sequences and series, probability and combinatorics, and limits and continuity. The TI-Nspire CX CAS graphing calculator is required for this course.

4 blocks - full year

Prerequisites: *B+ or above in Honors Algebra II.*

Calculus

MA-400 (offered 2021-2022)

Calculus is a full-year course designed to show how Calculus can be used to solve real-world problems and to prepare students to find success in a first-year college Calculus course. Students begin the year by reviewing functions, and are introduced to limits, differentiation and its applications, and integration and its applications as the year progresses. Applications play an important role in this course and are drawn from business, social and behavioral sciences, life sciences, and physical sciences. Since technology is widely incorporated into the course, students are required to use the TI-Nspire CX CAS graphing calculator.

4 blocks - full year

Prerequisites: *B- or above in Honors Precalculus; B+ or above in Functions, Statistics & Trigonometry.*

AP Calculus AB

MA-420 (offered 2021-2022)

AP Calculus AB is a full-year course that represents the equivalent of a single-semester of college calculus. Students should have a strong interest in mathematics and a foundational understanding of polynomial, trigonometric, exponential, logarithmic, rational, and inverse functions. Topics covered include limits and continuity, the definition of the derivative, derivative rules, existence theorems, L'Hopital's Rule, implicit differentiation, related rates, curve sketching, optimization, The Fundamental Theorem of Calculus, Riemann sums, antiderivatives, basic integration techniques, area between curves, volume of rotational figures, figures with similar cross sections, and differential equations. Preparation for the AP exam will happen throughout the year, and sitting for the AP exam in May is required if enrolled in this course. The TI-Nspire CX CAS is required for this course.

4 blocks - full year

Prerequisites: *B+ or above in Honors Precalculus.*

AP Calculus BC

MA-450 (offered 2021-2022)

AP Calculus BC is a full-year course that represents the equivalent of two semesters of college calculus. Students should have a very strong interest in mathematics and a thorough understanding of polynomial, trigonometric, exponential, logarithmic, rational, and inverse functions. In addition to the topics covered in the AP Calculus AB curriculum, topics include more complicated integration techniques; arc length, and surface area; polar and parametric coordinates; vector-valued functions; Euler's Method; Newton's Method; logistic models; convergent and divergent series; Taylor and Maclaurin series; and the Lagrange Error Bound. Preparation for the AP exam will happen throughout the year, and sitting for the AP exam in May is required if enrolled in this course. The TI-Nspire CX CAS is required for this course.

4 blocks - full year

Prerequisites: *A- or above in Honors Precalculus.*

Statistics

MA-500 (offered 2021-2022)

Statistics includes the topics of: sampling strategies and experimental design, numerical and graphical methods of describing data, probability concepts, probability distributions (both discrete and continuous), sampling distributions, confidence intervals, hypothesis testing and simple linear regression. Emphasis will be on data visualization and analysis using spreadsheets and graphing calculators.

4 blocks - full year

Prerequisites: *B- or above in Algebra II and senior standing; or department approval. This course can be taken concurrently with another math course.*

Multivariable Calculus

MA-550 (offered 2021-2022)

This course covers vector and multivariable calculus. Topics include vectors and matrices, parametric curves, partial derivatives, double and triple integrals, and vector calculus in 2- and 3-space. By the end of the course you will know how to differentiate and integrate functions of several variables. The capstone to the course will be the three theorems (Green's, Stokes' and Gauss') that relate vector derivatives and integrals.

4 blocks - full year

Prerequisites: *A- or above in BC Calculus; and teacher recommendation.*

Science

[refer to end of document for course sequence map]

Environmental Science

SC-100 (offered 2021-2022)

This class is an introductory level environmental science course intended for freshmen. The course emphasizes how our planet's climate is changing, how scientists measure that change, and how global warming impacts humans and the environment. As part of this exploration, students will learn about each of Earth's systems and how environmental policy can play a role in creating change on a larger scale. Students engage in case study analysis, experimentation, and fieldwork in order to develop an understanding of how our natural environment and human activity are interrelated. This is an interdisciplinary course covering topics in biology, chemistry, physics, and psychology. Emphasis is placed on developing scientific writing, mathematical and inquiry skills by performing research, asking questions, developing hypotheses, collecting, organizing and analyzing data, and communicating both verbally and in written lab reports.

4 blocks - full year

Prerequisites: None

Integrated Chemistry

SC-200 (offered 2021-2022)

A study of topics including the structure and interactions of matter, stoichiometry, phases of matter, chemical equilibrium, acid-base and oxidation-reduction chemistry. This course is designed around uncovering key chemical principles encountered in everyday life. Using an interactive, contextual approach will allow students to increase proficiency with scientific writing, enhance the use of mathematical skills in the sciences, and improve inquiry skills in the laboratory setting.

4 blocks - full year

Prerequisites: *Environmental Science*

Chemistry

SC-210 (offered 2021-2022)

A study of core topics in chemistry, including the structure and interactions of matter, reaction stoichiometry, chemical bonding, intermolecular forces and the phases of matter, chemical equilibrium, and acid-base and oxidation-reduction chemistry. Emphasis is placed on understanding chemical phenomena in terms of what occurs on the level of atoms and molecules. Students spend a significant portion of the class time involved in collaborative activities, such as group problem solving and laboratory work. Specifically, the laboratory component of the course provides several opportunities for guided inquiry, including a multi-week group project during the second semester.

4 blocks - full year

Prerequisites: *Placement test or B+ or higher in Environmental Science*

AP Chemistry

SC-250 (offered 2021-2022)

This rigorous course is designed as an equivalent to college General Chemistry. It builds on concepts introduced in Chemistry, providing students with a broader and deeper understanding of core chemical principles. Topics include the structure of matter, chemical reactions, chemical bonding, intermolecular forces, kinetics, equilibrium, and thermodynamics. Emphasis is placed on developing student self-confidence and

independent study skills. Students also develop hands-on and computer-based laboratory skills through a challenging lab curriculum. A minimum of twenty-five percent of the class is dedicated to lab-related work, as mandated by the College Board. A significant portion of the class is devoted to collaborative problem-solving and inquiry-based laboratory experiments during which students are encouraged to take intellectual risks. Thus, students hone their abilities to think clearly and express their ideas, both orally and in writing, with clarity and logic. Sitting for the AP exam in May is required if enrolled in this course.

4 blocks - full year

Prerequisites: *Completion of Chemistry and teacher recommendation.*

Students must have demonstrated effective study skills, as well as the ability to learn independently and self-assess their mastery of chemical concepts. They should also have shown an understanding of experimental design and how to construct a scientific argument using experimental data, in connection with the appropriate scientific concepts. Furthermore, students should have demonstrated an ability to represent concepts through the use of models, diagrams, and graphical analysis. They must also have the ability to recognize patterns and make connections across units.

Biology

SC-300 (offered 2021-2022)

This course will study major biological topics including molecular biology, cellular structure and function, genetics, biotechnology, evolution, energy transference, and ecology. Emphasis will be given to using an inquiry approach in the study of biological systems and interactions. Students will develop scientific skills such as designing experiments and analyzing data, making models and forming scientific arguments. There will be a number of hands-on labs and activities to support and assess the material learned in each unit. Students will gain an understanding and appreciation for the biological systems of the natural world both on a micro and macro scale.

4 blocks - full year

Prerequisites: *Chemistry or Integrated Chemistry*

AP Biology

SC-350 (offered 2021-2022)

This course is the equivalent of an introductory level college biology course. It will provide students with the concepts, factual knowledge, and the analytical and inquiry skills necessary for advanced level college biology courses. We will cover 8 major topics; Organic Chemistry, Cellular Structure, Cellular Energetics, Cellular Communication and the Cell cycle, and Heredity, Gene Expression and Regulation, Evolution and Ecology. The course also includes a substantial laboratory component, giving students many opportunities to engage in open inquiry, where students ask their own questions and design their own experiments. Sitting for the AP exam in May is required if enrolled in this course.

4 blocks - full year

Prerequisites: *Completion of Chemistry and teacher recommendation.*

Students must have demonstrated study skills, independent learning and the ability to self-assess understanding. Students should have an understanding of experimental design and how to make a scientific argument using experimental data connected to appropriate scientific concepts. Students should have the ability to represent concepts through the use of models, diagrams and graphical analysis. Students should also have the ability to recognize patterns and make connections across units.

Motion, Interaction, and Constraint (Introductory Physics)

SC-370 (offered 2021-2022)

Motion, Interaction, and Constraint is an algebra-based introductory physics course. It provides a solid grounding in basic Newtonian physics and frequent hands-on laboratory work, emphasizing the evolution of ideas from experimental observation to mathematical modeling. There are three main ideas: the description of motion (kinematics), the description of interactions and their effects on motion (forces and Newton's laws), and universal constraints on interactions (conservation of momentum and energy). Problem-solving technique is a central focus of the class. Upon successful completion of this one-semester course, students are eligible for additional physics electives. Students enrolling in this course should have a solid grounding in algebra, including solving systems of equations, and some familiarity with basic trigonometry, as well as the ability to analyze experimental data.

4 blocks - Fall semester

Prerequisites: *Completion of Algebra II in good standing and science department approval.*

Physics of Engineering

SC-400 (offered 2021-2022)

Physics of Engineering is an algebra-based introductory physics course with an emphasis on the application of physical principles to engineering problems. Engineering projects are a core part of the coursework. Topics may include: torque and statics, oscillations and waves, fluids and material properties, or others, based on student interest. Students enrolling in this course should be able to use kinematics, Newton's laws, and conservation laws competently in solving physics problems.

4 blocks - Spring semester

Prerequisites: *Completion of Motion, Interaction, and Constraint in good standing.*

AP Physics C (Mechanics)

SC-450 (offered 2021-2022)

The Advanced Placement Physics C (Mechanics) course is a rigorous, calculus-based introduction to Classical Mechanics, the foundation of any study in the physical sciences or engineering. Students enrolling in this course are expected to take the AP Physics C (Mechanics) Exam in May. The first few weeks will be spent on a review of the material in Motion, Interaction, and Constraint with the introduction of additional mathematical rigor from Calculus; the remaining time will be spent on three additional topics: rotation of rigid bodies, oscillations, and gravitation. Calculus will be used routinely throughout the year whenever it is needed, so students should have a working knowledge of basic operations with vectors, derivatives, and integrals (or be enrolled in a Calculus class), along with strong algebra and geometry skills. A major focus of the course is on quantitative problem-solving; students will spend a good deal of class time on this skill. The AP Physics course also includes a strong, hands-on laboratory component. Students will work with electronic probes and data collection software, along with other measurement apparatus, and spreadsheets will be used as a tool for processing collected data and developing mathematical models for physical phenomena. Sitting for the AP exam in May is required if enrolled in this course.

4 blocks - Spring semester

Prerequisites: *Completion of or current enrollment in a Calculus class; completion of Motion, Interaction, and Constraint in good standing; and science department approval.*

Science & Engineering Inquiry: Research & Proposal

SC-601 (offered 2021-2022)

Research and Inquiry are fundamental skills for scientists and engineers. This course will help students to begin building this foundation. SEI will familiarize students with foundational skills such as learning how to find and read primary research articles, choosing a scientific or engineering topic to explore and then developing a question or engineering goal within that topic, and writing a formal literature review and proposal. Students will learn to master basic lab and/or engineering skills and will rotate through a variety of foundation labs.

4 blocks - Fall semester or Spring semester

Prerequisites: Junior or senior standing and department approval

Science & Engineering Inquiry: Design & Experimentation I

SC-602 (offered 2021-2022)

This course follows the first semester of SEI and students are expected to perform research, design and conduct an experiment or engineering project, and present their work at the Worcester Regional Science & Engineering Fair in March, and at the Massachusetts State Science & Engineering Fair if selected to do so. Participation in the Regional Science & Engineering Fair during either Junior or Senior year is mandatory as is a poster presentation and final research paper.

4 blocks - Fall semester or Spring semester

Prerequisites: Successful completion of Research and Scientific Inquiry: Research and Proposal, Junior or senior standing and department approval.

Science & Engineering Inquiry: Design & Experimentation II

SC-603 (offered 2021-2022)

This course is for students continuing a research project from Science & Engineering Inquiry: Design & Experimentation I.

4 blocks - Fall semester or Spring semester

Prerequisites: Successful completion of Research and Scientific Inquiry: Research and Proposal and Research and Scientific Inquiry: Experimentation 1. Students must also have received approval on a new research proposal.

Fall & Spring Science Electives for Grades 11 and 12

Psychology I

SC-501 (offered 2021-2022)

How and why do we, as humans, behave the way we do? Psychology, as a science and as a discipline attempts to answer this question. Using the scientific method as its standard, this course examines the themes of nature vs. nurture, the mind/body connection, evolution, and the role of perspective. The course surveys the main areas within the discipline: research methodology, physiological psychology, learning and memory, developmental psychology, personality psychology, and abnormal psychology.

4 blocks - Fall semester

Prerequisites: Junior or Senior Standing

Note: This course is not a lab science and does not count towards the science graduation requirements.

Psychology II

SC-502 (offered 2021-2022)

This course will focus on the application of the basic theories of psychology. The theories of Freud, Skinner, Rogers, Jung, Bandura and others will be applied to the following topics among others: sleep and dreams, prejudice, therapies, ethics and morality, war and aggression, obedience to authority, advertising, death and grief, and stress. Topics covered and the order of units are influenced by student choice and interest.

4 blocks - Spring semester

Prerequisites: Psychology I

Note: This course is not a lab science and does not count towards the science graduation requirements.

Case Studies in Psychopathology

SC-504 (offered Spring 2023, and every other year thereafter)

This course focuses on understanding and exploring psychological disorders using film as the catalyst. We will use the psychology textbook, web resources, and journal articles for background information. Reading quizzes will measure how well you understand these details. We will then watch the appropriate film and then set to work on papers and projects that flesh out how that film dealt with the reality (or not) of the disorder and how the film might give insights into the experience of having that disorder. Grading will be based on the quiz and paper grades as well as class discussion participation.

4 blocks - Spring semester

Prerequisites: Psychology I

Note: This course is not a lab science and does not count towards the science graduation requirements.

Social Psychology

SC-505 (offered 2021-2022)

Humans are inherently social creatures and, therefore, we create systems for promoting and managing social interactions. In this course, students will explore how people think about, influence, and relate to others as well as how culture impacts personal and group behavior. The course begins with an overview of social psychology theory: the development of self & group identity, understanding other people's behavior, human behavior experiments, and the influence of culture and media on social norms. We then shift to a series of units determined by student choice. These units may include topics such as: criminology, the social structure of games, the psychology of love & attraction in relationships, and the seduction of cults.

4 blocks - Spring semester

Prerequisites: Psychology I

Note: This course is not a lab science and does not count towards the science graduation requirements.

Anatomy and Physiology: Sports and Exercise

SC-510 (offered 2021-2022)

This course looks at the structure and function of the human body in relation to sports and exercise. Particular attention is focused on the major body systems involved in exercise, specifically at how the musculoskeletal, cardiovascular, respiratory, and nervous systems respond to physical activity. We also investigate the importance of exercise on physical and emotional health and consider how the body reacts differently depending on activity type, environmental condition, and participant age. Dissections of several organs and organisms will support learning, along with labs that explore structure and function relationships in the body.

Problem solving activities will promote an understanding of the physiological interactions required to participate in physical exercise. Student projects will allow individual exploration of areas of sport.

4 blocks - Spring semester

Prerequisites: *One semester of Biology*

Anatomy and Physiology: Human Health

(offered Spring 2023, and every other year thereafter)

This course is an overview of anatomy and physiology with an emphasis on human health, homeostasis, immunology and diseases. The themes of this course are levels of Organization, homeostasis and the integration of Systems. This course will pay particular attention to the human body systems involved in health; the immune system, the integumentary system, the endocrine system and the nervous system. Students will learn the structure and function of the tissues from the level of the cell to the level of the organism. Dissections of several organs and organisms will support learning, along with labs that explore structure and function relationships in the body. Problem solving activities will promote an understanding of the physiological interactions involved in human health. Student projects will allow individual exploration of human health, for example different diseases and conditions impacting human health and how these can be treated.

4 blocks - Spring semester

Prerequisites: *One semester of Biology*

Marine Science

SC-520 (offered 2021-2022)

This course will introduce topics related to the ocean environment including geology of the ocean, seawater chemistry, waves and tides. A study of marine ecology including different ocean and coastal habitats will occur. Photosynthetic life including phytoplankton and marine algae as well as coastal plants will be studied. An overview of invertebrates including a dissection of starfish, clam and squid takes place. Laboratory work includes microscopic studies, dissections of marine life as well as seaweed identification and pressing. A study of the geologic history of Cape Cod will complement our fieldwork in this area of New England. Students will participate in fieldwork related to New England coastal ecology with a focus on the intertidal zone.

4 blocks - Fall semester

Prerequisites: *Junior or senior standing and completion of or concurrent in Biology*

Science Summer Offerings

Bermuda Marine and Island Ecology

SC-530- TBD

This course will introduce students to the marine and terrestrial environments of Bermuda. We will study the geologic and natural history of the Islands with emphasis on the marine habitats. We will visit and learn about different types of reefs, ponds, sandy shores, and rocky shores. Our daily field trips will include limestone caves and Nonsuch Island, where restoration to the pre-colonial natural environment is taking place. Snorkeling will occur every day, at a different field site. Other field trips include a visit to the Bermuda Aquarium and Museum of Natural History and the Royal Dockyard and Maritime Museum. The group will be based at the Bermuda Institute for Ocean Sciences. We study two days at Bancroft School in Worcester, and then go to Bermuda for seven days, returning for one more day of class at Bancroft.

Note: Sign up for this course is separate from regular course selection.

2 blocks - summer **Prerequisites:** *Sophomore standing or age 14 years, 9 months*

Sustainability in the Land of Ice And Fire

SC-570-TBD

This course will offer an immersive study of geology, sustainable engineering, climate change and renewable energy in Iceland to develop an understanding of how these concepts interrelate and inform plans for our future. Learn about Volcanic geology on site at recently active volcano Hekla, visit and hike through the continental divide at Pingvellir National Park, and study geothermal activity on several sites around the Reykjanes peninsula. We will learn about soil erosion at the Icelandic Soil Erosion Center, and participate in reforestation efforts in the Icelandic countryside with organizations that are rebuilding biodiversity and decreasing the Icelandic carbon footprint. Students will also participate in discussions with science professionals in the field of geology, Icelandic culture, renewable energy and climate science. Students will hike on a glacier and visit a glacial lagoon in order to better understand the regions studied by these professionals. Students will investigate Iceland's use of renewable energy sources, and their sustainably operated schools. These inquiry-based experiences will culminate with students presenting on the interrelationship between the major areas of study, and allow them to develop a plan for improving one or more sustainability aspects for their local communities.

Note: Sign up for this course is separate from regular course selection.

2 blocks - summer **Prerequisites:** *None*

Ecological Study of the Greater Yellowstone Ecosystem

SC-580-TBD

This course will be a travel Ecology class to Montana and Yellowstone National Park. The Greater Yellowstone Ecosystem offers a unique location to learn about ecology because it is a hub of ecological and conservation research. The extensive protected ecosystem, including Yellowstone Park, offers numerous opportunities to conduct studies such as: species populations, ecosystem interactions, the reintroduction of wolves, protection of the bison, invasive plants, migration routes, climate change, and land usage issues. Students will be able to get hands-on experience in field research in a center for worldwide ecological studies.

Note: Sign up for this course is separate from regular course selection.

2 blocks - summer **Prerequisites:** *None*

Performing Arts

[refer to end of document for course sequence map]

Acting

PA-100 (offered 2021-2022)

This course seeks to give students insight into the discipline of modern, realistic acting and is structured to give students the tools necessary to feel comfortable speaking on stage, to understand the terminology of the theater, and to evaluate, analyze and present scenes with thought and polish. Initial emphasis will be on improvisation and practical exercises; as the class progresses, this will lead to formal scene work. By the end of the class, students should know how to approach improvisation, monologues, scenes and character analysis.

4 blocks - Fall semester

Prerequisites: None

Acting II

PA-200 (offered 2021-2022)

This course will include studying a Shakespeare play, American theatre classics, acting theory, and improvisation. Particular plays will differ from semester to semester, but will include such material as *Twelfth Night*, *Othello*, *Our Town* and *Who's Afraid of Virginia Woolf?* Characterization techniques, advanced text analysis, and improvisational skills will be built throughout the course. We will use Stanislavsky's approach to acting as a model to apply to our work. You may take up to two semesters of this course over your time at Bancroft.

4 blocks - Fall semester or Spring semester

Prerequisites: Acting I or instructor permission

Acting III

PA-300 (offered 2021-2022)

This is a third level of acting class, with important additional responsibilities and expectations beyond Acting II. Students will study with the Acting II class and will participate in all class activities. They will take on additional leadership positions including scene direction (extra readings to prepare them for this: *Thinking Like a Director: A Practical Handbook* by Michael Bloom) and leading acting exercises. Students will be assessed on their daily class participation, their leadership in the class, their weekly acting journal, their performances, and their scene directing. You may take up to two semesters of this course over your time at Bancroft.

4 blocks - Fall semester or Spring semester

Prerequisites: Two semesters of Acting II or instructor permission

Technical Theater

PA-110 (offered 2021-2022)

This course will focus on a design and practical approach to stagecraft. Theory will be applied to lighting, set design, set construction, costuming, sound design, make up, stage management and property design.

Projects will be directly applied to existing productions at Bancroft (Eighth grade play, US drama, US musical, LS play) as well as concerts and other performances in our theater. *This course can be taken for credit more than once.*

2 blocks - Fall Semester or Spring Semester

Prerequisites: None

Advanced Theatrical Design

PA-350 (offered 2021-2022)

This course introduces students to the fundamentals of theatrical design in four major areas: sets, costumes, lighting and sound. Within each of those four areas, students will learn the skills needed to design and document their ideas. Students will first create theoretical designs and then contribute to the design of departmentally-produced shows in the second semester. This class involves substantially more homework than in our Technical Theatre classes. Due to the nature of the class, students must be self-motivated and able to pace themselves on large projects spread over a long period of time. This class will meet two periods/cycle; students will also be scheduled into one of the normal Technical Theater classes. In addition, each student will be required to attend work calls for department productions on a consistent basis.

4 blocks - Full year - course meets first and second semesters; 2 meetings per rotation plus work calls. Students will be scheduled into Technical Theater for the entire year.

Prerequisites: Technical Theater and permission of instructors

Performing Arts in Our World

PA-120 (offered 2021-2022)

This is a course for non-performers and performers alike. We will be exploring the design of various disciplines in the performing arts (music, theater, dance and film) and their intersections with each other in modern culture. We will be studying the elements, structure, and historical context by experiencing and discussing important examples (e.g., West Side Story, The Mandalorian, Hamilton, etc.) in these disciplines. Students will then create projects within one or more disciplines of their choosing. Projects could take the form of research papers, presentations, original performances, etc. By the end of the course, students will have a better appreciation of the performing arts and their place in our culture.

Prerequisites: None

4 blocks - Fall semester or Spring semester

Chamber Ensemble

PA-140 (offered 2021-2022)

This course is for students who play an instrument and are interested in playing music of varying genres arranged for chamber groups. Students interested in this course should have at least one year of experience on their instrument. *This course can be taken for credit more than once.*

2 blocks - full year

Prerequisites: Reasonable proficiency on instrument

Rock Band

PA-150 (offered 2021-2022)

Rock band members will have lots of fun working on rock and pop music from a variety of eras, including classic rock from the 60s and 70s through today. We'll also explore some of the roots of rock and roll in jazz and blues. Students will have a strong voice in choosing the repertoire we perform. Through these various styles, we'll learn some fun music, strengthen ensemble skills and instrumental technique, and work on improvisation skills and concepts. Virtually **all** instruments are welcome, but particularly drums, guitar/piano, and bass. You must provide your own instrument (except piano or drums). *This course can be taken for credit more than once.*

2 blocks - full year

Prerequisites: Reasonable proficiency on instrument

Music Theory

PA-170 (offered 2021-2022)

This course is for students who have a firm grasp on the fundamentals of music notation. Students who are most likely to benefit are those currently studying an instrument. The class will cover basic harmonic theory, and aural and visual interval and chord identification and construction. Students will also learn the basics of the overarching formal structures of music.

4 blocks - Fall semester

Prerequisites: *Ability to read music*

Music Laboratory

PA-185 (offered 2021-2022)

This is a project-oriented class where you propose the project and we work together to make it happen. Maybe you always wanted to learn piano, or guitar, or drums, or trumpet, etc. Have you ever wanted to know more about a composer or his/her music? Interested in some theory lessons? Let's do it! You will primarily be spending time designing and proposing a project, then working independently (with guidance) to complete it, then presenting your work. This is a great opportunity to experiment with music.

4 blocks - Spring semester

Prerequisites: *None*

Visual Arts

[refer to end of document for course sequence map]

Introductory Studio Art

VA-100 (offered 2021-2022)

An introductory skill-building course emphasizing drawing, painting, sculpture, and design.

This course is a prerequisite for the majority of Visual Art Courses. Contemporary and historic artists of diverse cultural and geographic backgrounds will form the foundation of our studio practice. As well as emphasizing skill development, and the visual elements of design, students will be encouraged to develop their own personal voice and integrate that into all of their creative endeavors.

4 blocks - Fall semester or Spring semester

Prerequisites: None

Intermediate Studio

VA-200 (offered 2021-2022)

This course will focus on more advanced drawing and painting projects including: acrylic, watercolor and ink. Other projects include sculpture with various materials, relief block prints, etchings, and more.

4 blocks - Spring semester

Prerequisites: Introductory Studio Art or instructor permission

Studio III (a)

VA-300f (offered 2021-2022)

This course will focus on more advanced art projects and approaches using 2 and 3 dimensional media. Possible media covered will be: Book Art Sculpture, Fashion and wearable art, Collage and cut paper, and etching. Upper classmen will be expected to commit extra time in homework and classwork to work toward the creation of a college portfolio for the Advanced Visual Portfolio Class. Field trip to regional and local art museums will be part of this course, such as the MFA, ICA, or Mass Moca (if Covid safe).

4 blocks - Fall semester

Prerequisites: Intro Studio or instructor permission

Studio III (b)

VA-300s (offered 2021-2022)

This course will focus on more advanced art projects and approaches using 2 and 3 dimensional media. This often includes drawing, oil and watercolor painting, and relief printmaking. Other projects include sculpture with various materials, relief block prints, etchings, and more. Juniors will be expected to commit extra time in homework and classwork to work toward a college portfolio for the Advanced Visual Portfolio Class. Field trip to regional and local art museums will be part of this course, such as the MFA, ICA, or Mass Moca (if Covid safe).

4 blocks - Spring semester

Prerequisites: Intro Studio or instructor permission

Advanced Visual Portfolio

VA-400 (offered 2021-2022)

This is an intensive studio based portfolio class. Students will create visual art portfolio for college application in the fall term. Students will use the portfolio process as a jumping off point for a high level research based artistic project. This may be in any media, but should be grounded in their previous work. The course will be open to anyone who has taken two full credits of visual arts. The result will be a solo exhibition of thesis level work and a written piece including artist's statement. Extra time in the studio outside of class may be required to complete this course. Field trip to regional and local art museums will be part of this course, such as the MFA, ICA, or Mass Moca (if Covid safe).

4 blocks - Full year

Prerequisites: 4 semesters of visual art in a concentration or permission of instructor

Introduction to Digital Photography

VA-102 (offered 2021-2022)

Students will develop skills in the technical and aesthetic use of digital cameras. Elements of composition, rules of photography, will be taught. The course will be grounded in contemporary photography and historical developments. Digital editing will be taught using the Adobe suite and students will learn to produce high-resolution digital prints.

4 blocks - Fall semester or Spring semester

Prerequisites: None

Digital Photography II

VA-202 (offered 2021-2022)

Students will study the History of Photography and develop advanced skills in the technical and aesthetic use of both film and digital cameras, related darkroom and computer equipment and applications such as Adobe Photoshop to produce high-resolution digital and film based prints. Students are expected to develop a body of work with a strong personal voice of professional quality. Field trip to regional and local art museums will be part of this course, such at the MFA, ICA, or Mass Moca (if Covid safe).

4 blocks - Spring semester

Prerequisites: Introduction to Digital Photography

Global Art History - Culture, Countries, and Creativity

VART-201

This course is a chronological survey of varied artworks including but not limited to drawings, paintings, ceramics, sculpture, architecture, and photography from cultures around the world. Students will build a vocabulary of art and architectural terms through textbook readings, guided and independent research, homework assignments, class discussions, and creative projects. Critical thinking skills will be developed through image comparisons as well as written assignments. A fundamental part of this course is offering hands-on studio art projects that relate and connect to content learned. This will give the students an opportunity to understand art by creating art. Field trips to local museums, class projects, research papers, oral presentations, and tests add to the dynamic and meaningful understanding of visual art.

4 blocks - full year

Prerequisites: Sophomore, Junior or Senior standing

Digital Media - Visual Culture & Postmodern ideas (Virtual)

VA-101 (offered 2021-2022)

This course involves the creation of original and imaginative graphic design projects using state-of-the-art computer applications. A focus on relevant communication of visual ideas, symbolic context, 2D and 3D concepts, and 21st century visual culture provides dynamic learning and personal meaning to students. The international industry standard applications used include Adobe Illustrator, Adobe Photoshop, and InDesign. New creative apps and 3D concepts will be explored and experimented with as well.

4 blocks - Fall semester

Prerequisites: None

Digital Painting and Animation (Virtual)

VA-210 (offered 2021-2022)

Animation art involves various methods of media use. Use of hand drawing, computer applications, and apps will be utilized. Students will learn basic methods as part of the introduction to building characters, stories, and settings. An investigation of the beginnings of animation and unique creation of 21st century student visual cultures will be part of the exciting project based learning structure of this course. Field trip to regional and local art museums will be part of this course, such as the MFA, ICA, or Mass Moca (if Covid safe).

4 blocks - Spring semester

Prerequisites: Introductory Studio Art or instructor permission

Introductory Ceramics

VA-104 (offered 2021-2022)

This is a basic course in the three most common methods of working in the most pliable and enjoyable art medium - clay! Students will be hand-building in the pinch, coil, and slab methods of construction. Assignments have been designed that will allow students to plan and analyze their own creative interpretations while also building skills. An introduction to the potter's wheel will be covered as well as glazing techniques on earthenware and stoneware clay.

4 blocks - Fall semester

Prerequisites: None

Ceramics II

VA-204 (offered 2021-2022)

Students will build on previously learned skills while improving their knowledge of design when applied to sculptural and functional clay work. Altering forms, creative surface design treatments, and atmospheric firing methods will be covered. A look at ceramic history and a field trip workshop to a local ceramic studio complete this course and enable the students to create unique work fired in an alternative atmosphere - either Raku or high-fire gas reduction.

4 blocks - Spring semester

Prerequisites: Introductory Ceramics

Ceramics III

VA-301-Spring (offered 2021-2022)

Students will continue to improve learned skills while stretching themselves to design unique sculptural and functional clay work. A choice of forming methods constructed at an advanced level will be expected. Creating coordinated pieces that can also hold their own as good design will be taught, simultaneously while thoroughly understanding the importance of good form, structure, and surface decoration. Two semesters of ceramics prior will add to the experience.

4 blocks - Spring semester

Prerequisites: *Ceramics I and II*

Working with Wood: Tools, Materials, and Methods

VA-220 (offered 2021-2022)

This hands-on course will explore a wide variety of tools and methods of working in wood with a focus on developing the skills that will give students confidence in working with their hands turning their plans into reality. Participants will develop an understanding of wood as a material in order to properly design and construct projects out of hardwoods.

As part of the construction process students will learn how to safely use, sharpen and care for a variety of hand and power tools while building the project they designed.

2 blocks - full year

Prerequisites: *Introductory Studio Art or instructor permission*

Physical Education

PE for Health and Wellness

PE-100

For students who want a general introduction to the PE department, this course will offer a variety of sports and physical activities.

2 blocks - Fall semester or Spring semester

Prerequisites: None

Fab 4 Team Sports

PE-101

For the active, team sport fanatic who wants to play, run and compete.

Ultimate Frisbee, Flag Football, Basketball, Floor Hockey

2 blocks - Fall semester

Prerequisites: None

F.I.T. (Functional Interval Training)

PE-102

Gain core strength, endurance, power and flexibility in this cross training fitness class. Get fit, and stay strong! This class will focus on core fitness using a variety of equipment, weight training, circuits, and fitness hustle classes to help you get in shape and stay in shape.

2 blocks - Fall semester or Spring semester

Prerequisites: None

Racquet Sports

PE-103

Tennis, Badminton, Racket Ball, Pickle Ball, Ping Pong, Table Ball

Learn rules, skills, and strategy while playing these fun lifetime sports.

2 blocks - Spring semester

Prerequisites: None

Yoga and Pilates

PE-104

The class will follow beginner Yoga poses, introducing balance, strength and flexibility. Proper breathing patterns and techniques for relaxation will be practiced. As the semester goes on, methods of Pilates will be taught to help improve posture, body alignment and core development.

2 blocks - Fall semester

Prerequisites: None

Play, Play, Play

PE-105

This class includes favorites like Ultimate Ball, Mat Ball, Boom Ball, Lord of the Rings and more.

2 blocks - Spring semester

Prerequisites: None

Health and Wellness

Freshman Seminar

FS-100

Awareness and management of our emotions and social connection directly impact our success in personal and academic spheres. In Freshman Seminar, we will study human neurological, emotional, and social development from adolescence through early adulthood. This course will provide opportunities to think critically about and discuss the academic, social and developmental challenges that students face and provide skills for managing those challenges. The course will focus on the understanding of thoughts, emotions, reactions to stress, and dealing with conflict, and will look more closely at human relationships and human sexuality.

2 blocks - Fall or Spring semester

Prerequisites: None. Required for all freshmen

Learning Support

Academic Support

AS-1

This class provides academic support for students who may need support for a variety of reasons, including but not limited to, executive function weaknesses, health impairments, and learning differences. Individualized support is given to meet the student's needs. This class is intended to improve student's self-awareness, self-advocacy skills, and independence as a learner. Additionally, help students to balance their academic strengths with their weaknesses and help students work towards reaching their full potential.

1-4 blocks- Fall and Spring Semester

Prerequisites: Department approval

Learning Strategies

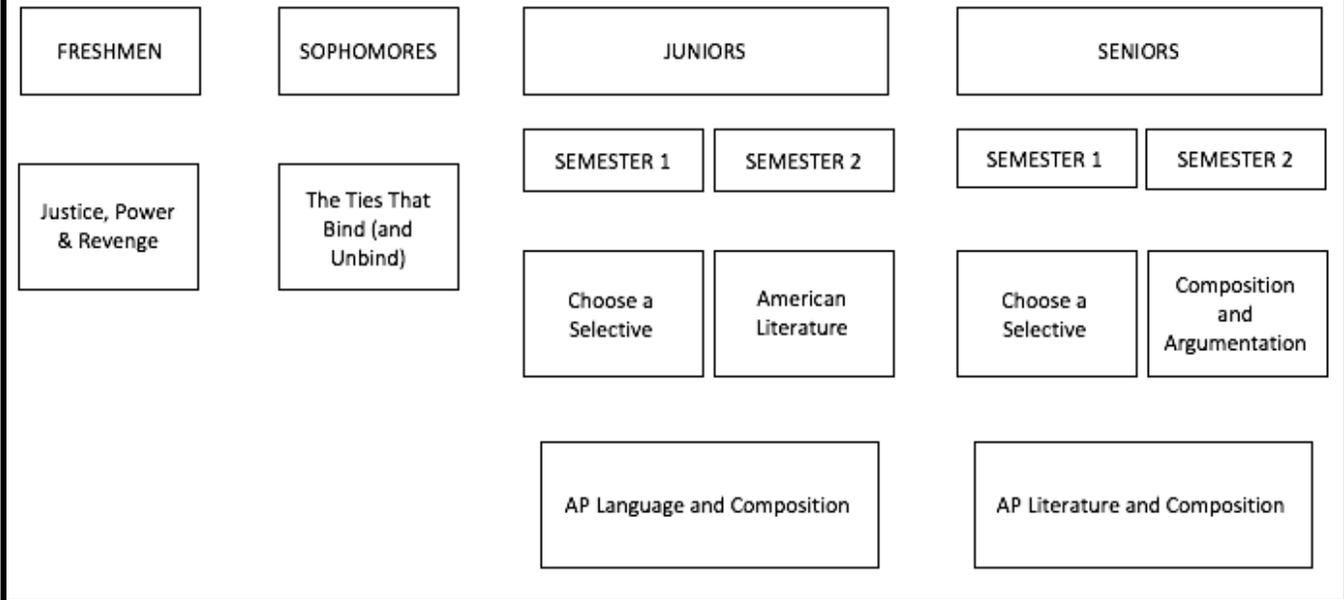
AS-50

This course is designed specifically for 9th grade students and focuses on executive functioning skills including planning, time management, and focus as well as explicitly teaching study skills and organization through real classroom assignments. It is intended for freshman who may need extra support in the transition from middle school to high school. The goal of this class is to have the student understand his/her strengths, learn to self-advocate, and improve their executive functioning skills.

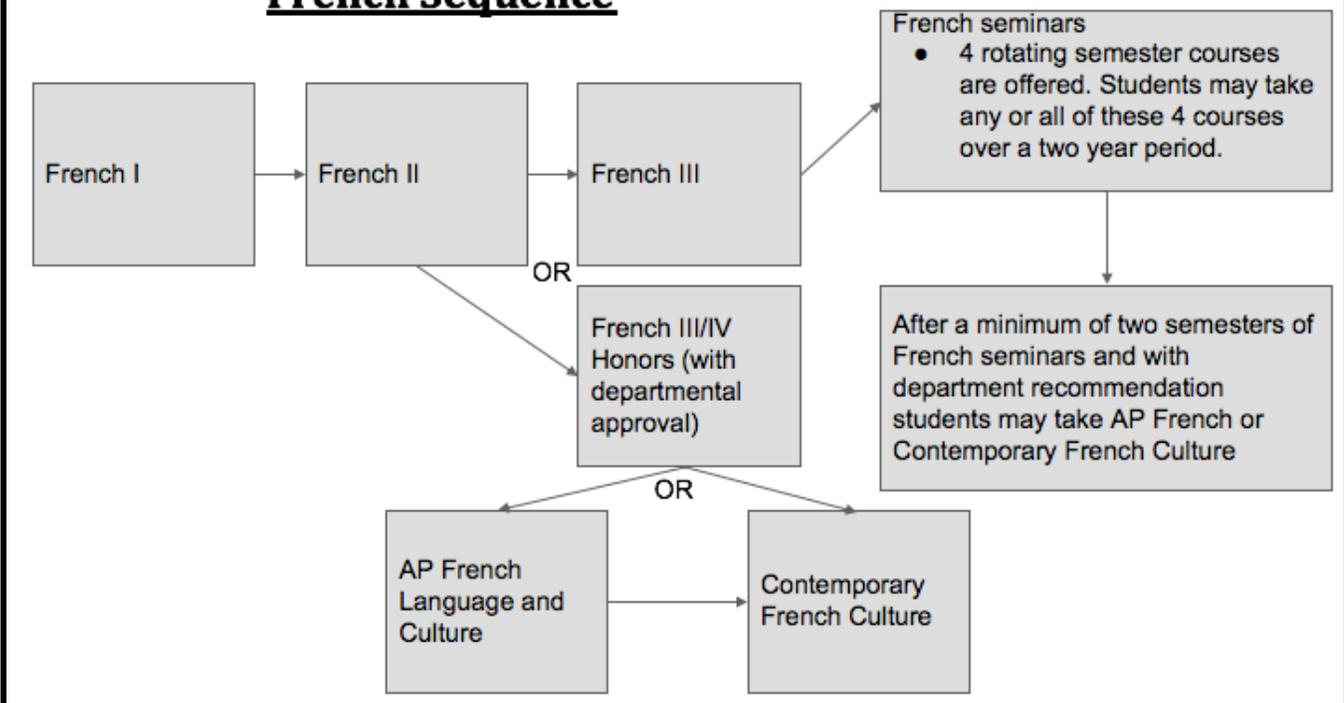
4 blocks-Fall and Spring semester

Prerequisite: Department approval

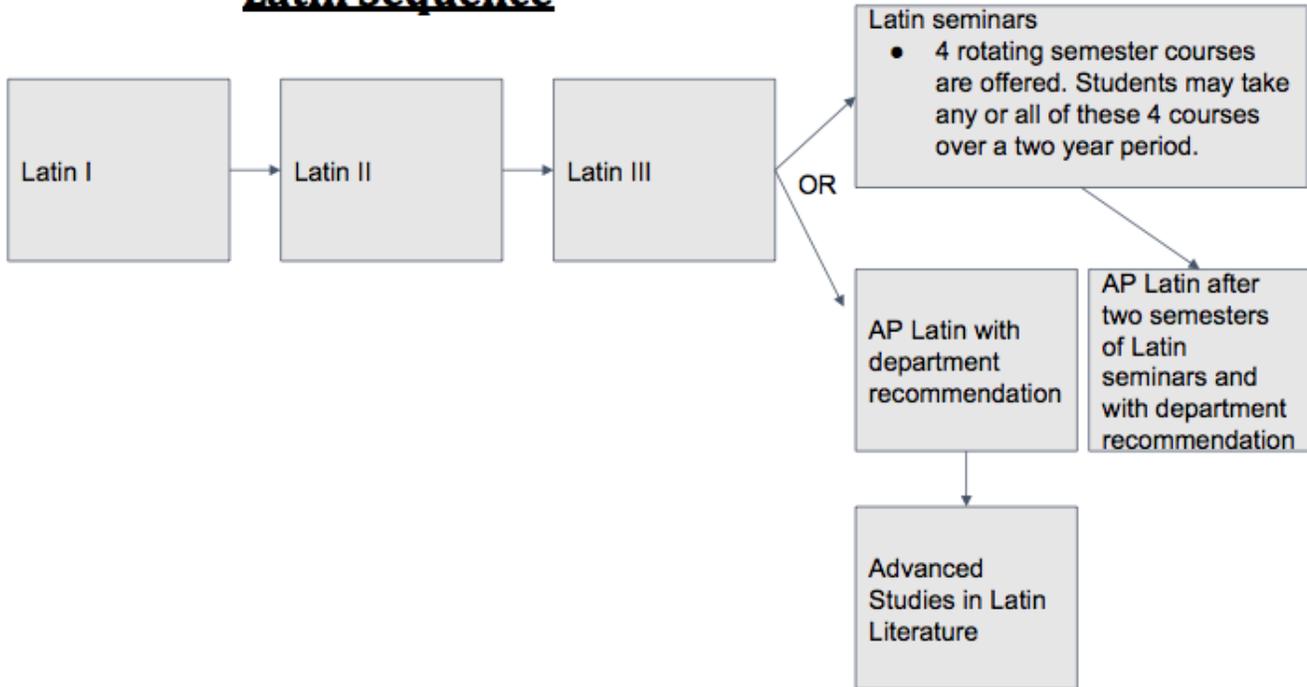
ENGLISH COURSE SEQUENCE



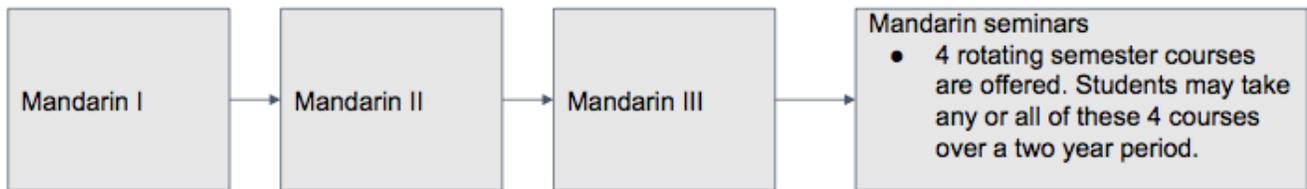
French Sequence



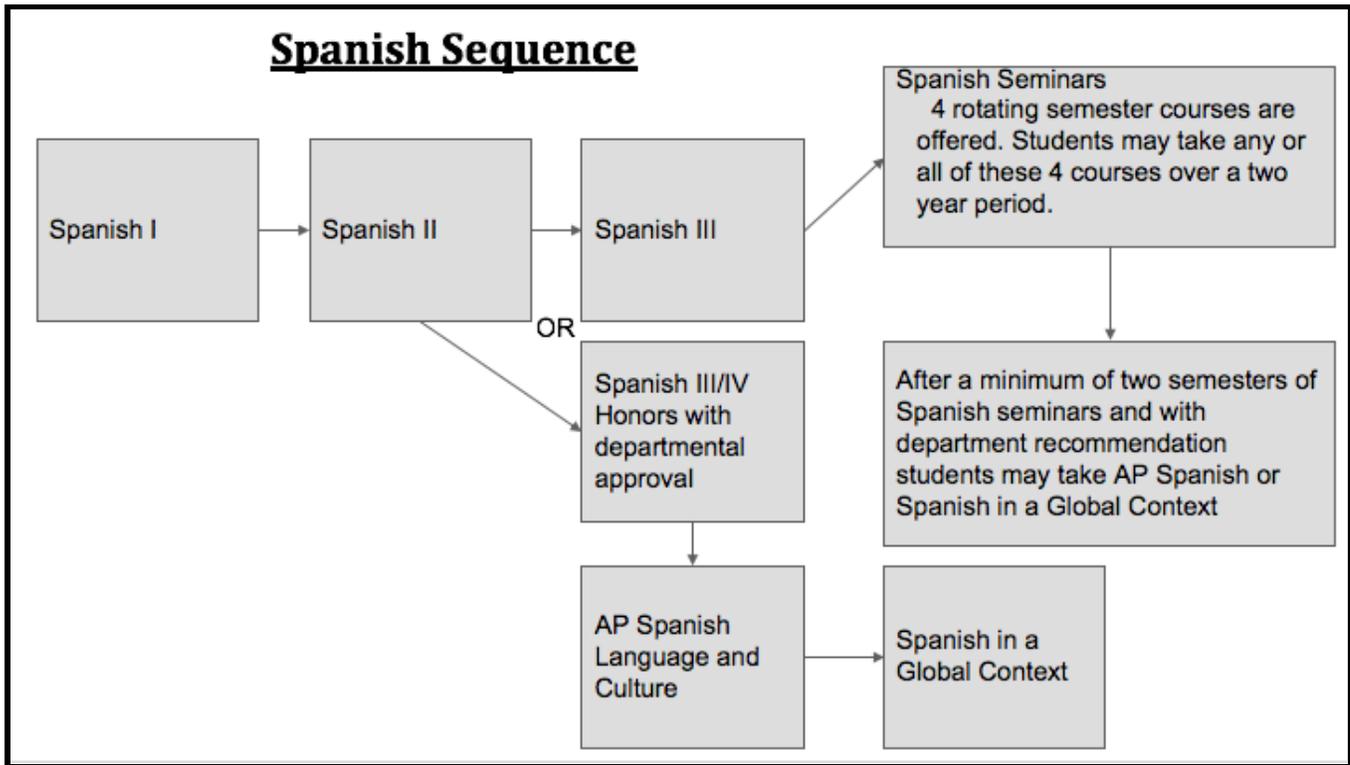
Latin Sequence



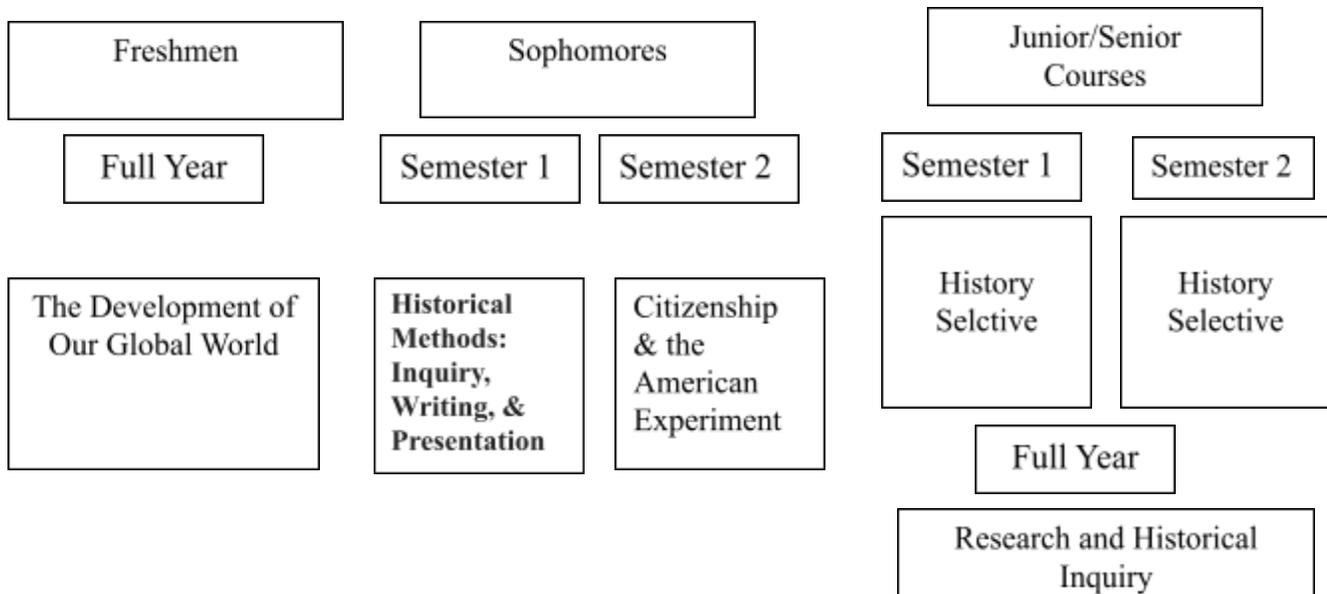
Mandarin Sequence



Spanish Sequence



History Course Sequence 2021-2022



Performing Arts Sequence

- Acting I, II and III
- Technical Theater
- Chorus (full year)
- Song and Stage (spring)
- Orchestra
- Chamber Ensemble
- Rock Band (full year)
- Music Theory (fall) and Music Laboratory (spring)

SCIENCE COURSE SEQUENCE

Introductory Science Course
Environmental Science

Chemistry Courses
Integrated Chemistry
Chemistry
AP Chemistry

Life Science Courses
(prereq: 1chem or chem)
Biology
AP Biology
Marine Science *(fall)*
Anatomy *(spring)*

Physics Courses
*(all semester classes
prereq: Algebra II)*
MIC: Intro Physics
AP Physics C M
AP Physics C E/M
Physics of Engineering

Behavioral Science Courses
*(all semester classes, prereq: junior or
seniors only, not lab sciences)*
Psychology I *(fall)*
Psychology II *(spring)*
Case Studies in Psychopathology
or Social Psychology *(spring)*

Research Courses
*(prereq: teacher
recommendation)*
SEI I
SEI II
SEI III
SEI IV

Visual Art Program 19/20

Intro Studio

Digital Media

Intro to Dig Photo

Intro to Ceramics

Global Art History



Studio II/III:
Celebrity
Sports
Fantasy
Music/Fashion

Digital Paint
& Animation

Digital Photo II

Ceramics II

Studio Electives



Ceramics III



(4 semesters of visual art in a concentrated area; digital, studio, or ceramics)



Advanced Visual
Portfolio