



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.

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	3 years including The Development of Our Global World and United States History
Foreign 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, Biology, and a third lab science (Physics strongly recommended)
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

Computer Science

Computer Science Principles

CS-100

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

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

Robotics Engineering

CS-105

This course is for students who want to learn to build and program robots. Students will work in a professional manner that documents their robot project development. The student will periodically present their project work to the class for review and suggestions. The goal of the course is for students to grow in many areas related to robotics such as programming, design and engineering, technical writing and analysis, testing and presenting to a non-technical audience.

2 blocks - full year

Prerequisites: None

AP Computer Science

CS-200

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 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

Algorithms and Data Structures

CS-300

This course is intended for students who have completed AP Computer Science. Choosing appropriate data structures in a program is essential for sound software design and creating software that meets speed and memory requirements. In this course, we will study linear and linked-linear data structures, trees and graphs, recursion, searching and hashing, sorting and searching algorithms. The class will analyze the efficiency of the data structures and algorithms studied. The target language for this class will be C++. Students will work on projects individually and in teams. A laptop is required for this course.

4 blocks - full year

Prerequisites: AP Computer Science

Science & Engineering Inquiry: Research & Proposal

SC-601

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 or spring semester

Prerequisites: Junior or senior standing and department approval

Science & Engineering Inquiry: Design & Experimentation I

SC-602

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 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

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

4 blocks - fall 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.

English

[refer to end of document for course sequence map]

Justice, Power & Revenge

EN-100

“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*, *The Merchant of Venice*, and a selection of 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 (and Unbind)

EN-200

“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, in this discussion-based classroom students will analyze the themes of leadership and power in both government and family structures. The readings will span across several centuries and continents, beginning with Shakespeare's *Macbeth* and ending with tales of power and family from post-colonial Africa (*Things Fall Apart*), Latin America (*How the Garcia Girls Lost Their Accents*), and the Middle East (*Persepolis: The Story of a Childhood*). Students will 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

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

This course focuses on literature not only from the Western tradition but also from other cultures and parts of the world in four main thematic units: Tragedy; Society and the Individual; Madness, Fantasy and Reality; and Cross Cultural Encounters. 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 in the various thematic units; 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.

4 blocks - full year

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

Fall Selectives for Grades 11 and 12 - offerings will vary year to year:

English 11/12: The Power of Storytelling

EN-514

“After nourishment, shelter and companionship, stories are the thing we need most in the world.”
— Philip Pullman, contemporary British writer

Stories surround us -- from novels to plays to Facebook posts, insta/snapchat stories and even TikTok (well, the verdict may be out on that one!). In this course we will learn about -- and harness the power of -- storytelling via writing, film, poetry and podcasts... and you will experience, as well as create, in each of these modes. The goal of this course is to equip you with the tools to use storytelling to persuade, to problem solve, and to participate in (and make meaning of) society. We will learn why stories are such an effective mode of expression, craft our own stories, and conclude with a “real world” project on a topic of your choice. (adapted from *Kaleidoscope*)

Possible selections include: *The Glass Castle* by Jeanette Walls, *They Called Us Enemy* by George Takei, stories from “This I Believe” and “The Moth,” TEDTalks, short stories, poems, lyrics and non-fiction essays.

4 blocks - fall semester

Prerequisites: *The Ties that Bind (and Unbind)*; sophomores by department approval

English 11/12: Rebel, Rebel

EN-505

“We are rebels for a cause, poets with a dream , and we won't let this world die without a fight.”
- Albert Camus

In this course, students will study the rebellious actions of individuals and characters in order to strive to understand the motives and reasoning behind their actions. What is it that suppresses them? Is it government, society's laws, a personal grudge? Are the terms “misfit,” “outcast” and “non-conformist” always synonymous with the moniker “rebel”? Does being labelled a rebel necessitate action? We will grapple with these key questions as we consider our own inner rebel.

Possible selections include: *Animal Farm* by George Orwell, *One Flew Over the Cuckoo's Nest* by Ken Kesey, *Fight Club* by Chuck Palahniuk, *The Help* by Kathryn Stockett , *Into the Wild* by Jon Krakauer, the film *Dead Poets Society*, various short stories, poems, lyrics and non-fiction essays.

4 blocks - fall semester

Prerequisites: *The Ties that Bind (and Unbind)*; sophomores by department approval

English 11/12: Yourself, Myself: Identity Through The Lens of Memoir

EN-515

The most profound art is often that which explores the most inner self. From poetry collections, to movie monologues, to self-titled albums, and entire books that explore the course of one life or one simple experience, to be alone as just creator and consumer, we develop a deeper understanding of both our subject and ourselves. Memoir does just this.

Over the course of the semester spent in this class, we will aim to engage with the depth of the memoir as a form of literary and artistic expression. What makes up an identity? What impacts a life? Which moments change us most and why? Through engaging with memoirs written by modern authors, watching films that explore the individual self, and finally writing a memoir of your own, students will strive to answer these questions both of others and of us in this self-reflecting course.

Possible selections include: *Educated* by Tara Westover, *Becoming* by Michelle Obama, *Born a Crime* by Trevor Noah, *The Liars Club* by Mary Karr, *Boy Erased* by Garrard Conley, *Undocumented* by Dan-Ei Padilla-Peralta, selected essays, poems, songs from David Sedaris, Amy Poehler, Mindy Kaling, Anne Lamott, Julia Alvarez, Alice Walker, Jhumpa Lahiri, Warsan Shire, “The National,” Kendrick Lamar, JCole

4 blocks - fall semester

Prerequisites: *The Ties that Bind (and Unbind)*; sophomores by department approval

English 11/12: Not Just for Laughs: Humor & Satire in Literature

EN-516

What do *Saturday Night Live*, Stephen Colbert, and *The Onion* all have in common? On the surface, it might not seem like much; however, each of these falls under the category of “satire,” a tool you might be even more familiar with than you think. Generally speaking, satire is defined as “the use of humor, irony, exaggeration, or ridicule to expose and criticize people's stupidity or vices” (Lexico).

In this course, we'll examine the use of humor and satire in a diverse range of media, art, and literature. We'll also develop a deeper understanding of the various tones that exist within the world of satire, from *haha, that's funny!* to *ouch, that's scathing*. Ultimately, we will sharpen our ability to identify, unpack, and use satire to expose the problems that comedians, authors, and even we see in society.

Possible selections for this course include *Brave New World* by Aldous Huxley, *1984* by George Orwell, “Waiting for Godot” by Thomas Beckett, *The Metamorphosis* by Franz Kafka, and more. We'll also work with a number of satirical short stories and essays by authors like Kurt Vonnegut, David Brooks, Mark Twain, and Jonathan Swift. We'll watch excerpts from performances by comedians like John Mulaney and Hasan Minhaj, as well as clips from shows like *Saturday Night Live* and *The Late Show*. Get ready to laugh and, above all, to satirize!

4 blocks - fall semester

Prerequisites: *The Ties that Bind (and Unbind)*; sophomores by department approval

English 11/12: No Dead White Men Here: The “Other” Voices in Literature

EN-517

Think about your Spotify library, your Netflix history, or your Instagram account. Do you listen to only *one* artist, watch only *one* show, or follow only *one* page? Of course not. With seemingly countless options out there, that would be silly and, quite frankly, boring. Now, let's apply that logic to English. Have you ever found yourself thinking, “*Another* dead white author?!” Surely, there are other voices out there, yet it seems like our scope is often limited. What about female authors? Or people of color? Or non-American authors? Let's add some flavor and spice things up a bit, shall we?

In this course, we'll engage with a number of works by authors who represent The Other. We'll experience different cultures, upbringings, traditions, and walks of life to ultimately gain a better understanding of and appreciation for the experiences about which we don't often read. These perspectives all matter, and together, we'll give them the attention they, too, deserve.

Possible selections for this course include *The Joy Luck Club* by Amy Tan, *The House on Mango Street* by Sandra Cisneros, *Purple Hibiscus* by Chimamanda Ngozi Adichie, and *Exit West* by Mohsin Hamid. We will also work with a variety of short stories, essays, slam poetry performances, interviews, TedTalks, and even podcasts (like “The Moth” and “NPR”) authored by voices representative of The Other. If, like Chimamanda Ngozi Adichie, you feel there is “danger [in] a single story,” then this is the class for you.

4 blocks - fall semester

Prerequisites: *The Ties that Bind (and Unbind)*; sophomores by department approval

Second Semester Courses for Grades 11 and 12:

American Literature

EN-310

“America is not a country; it’s an idea.”
- - Bono

In this course, students learn about the American “voice.” Juniors’ writing assignments strengthen their close reading skills and their ability both to find salient passages and to discover a writer’s “slant;” in addition, students will read myriad non-fiction essays and synthesize their thinking to write persuasive pieces on high interest topics. Systematic vocabulary and SAT-related grammar preparation, as well as opportunities to write drafts of a college essay, round out the course.

Possible selections include: *The Great Gatsby*, *Their Eyes Were Watching God*, *Interpreter of Maladies*, various short stories, poetry and essays.

4 blocks - spring semester

Prerequisites: Fall semester course; sophomores by department approval

Composition & Argumentation

EN-410

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

Foreign Language - French

[refer to end of document for course sequence map]

French I

FL-100F

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

FL-200F

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 friends and family, celebrations, food, school, technology, daily routine *etc.* 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

FL-300F

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 life at school, past vacations, future plans, fairy tales and love/friendship. 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

FL-350F

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 teacher approval*

French Seminar: Connecting with the World in French (offered 2020-2021)

FL-400F

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 (offered 2020-2021)

FL-400F

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

FL-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

FL-401F

This course offers a view into French-speaking cultures around the 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 discuss global challenges after 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 traditional comprehension activities as well as student-driven projects, presentations, translation, and creative writing.

4 blocks - spring semester

Prerequisites: French III

Contemporary French Culture

FL-410F

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, one year of 400 level seminars with department approval, or AP French Language and Culture

AP French Language and Culture

FL-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: French III/IV Honors or one year of 400 level seminars with department approval

Foreign Language - Latin

[refer to end of document for course sequence map]

Latin I

FL-100L

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, slavery, religion, and politics. Some of the more in-depth cultural explorations feature a unit on Roman breadmaking and bathing, where students acquire an understanding of these central components of daily life in Rome and share their findings through an interactive lesson with a Lower school classroom, and a study of Romano-British gardens, in which students choose various plants and experiment with them, testing the Roman use for each species.

4 blocks - full year

Prerequisites: None

Latin II

FL-200L

In Latin II, students continue to forge ahead in the Cambridge Latin series, furthering their study of major grammatical concepts with a concentration on refining their translation and reading comprehension skills. Culturally, Latin II focuses on life in the provinces of Alexandria and Roman Britain and then follows the characters to imperial Rome. One important project for this course requires students to create their own Latin book and another is a multi-faceted research project on the Romano-British town of Aquae Sulis, modern-day Bath in England.

4 blocks - full year

Prerequisites: Latin I

Latin III

FL-300L

In Latin III, students will complete their readings in the Cambridge Latin series and finish their study of all the major grammatical concepts. They will also explore a range of cultural topics including Roman marriage, religious beliefs and social dynamics. Toward the end of the year, students will transition to reading unadapted passages from a variety of Roman authors. Throughout the course there will 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

FL-400L

In this course, students will look at what Romans valued in their relationships, both romantic and platonic. Selections including the poems of Catullus about both his friends and his relationship with his love Lesbia as well as writings of Cicero, Horace and Pliny 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: Divine Intervention (offered 2020-2021)

FL-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: Ovid's *Metamorphoses* (offered 2020-2021)

FL-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: Heroes and Villains

FL-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

FL-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: *Latin III or one year of 400 level electives and department approval*

Advanced Studies in Latin Literature

FL-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 or one year of 400 level electives with department approval*

Roman Gardens: Design and Build

FL-600

Romans loved their gardens. In this design/build course, we will explore the key role that gardens played in the daily lives of people all over the Roman Empire and then we will build our own Roman-style garden on campus, to be used as a place of teaching and reflection by all three divisions. 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 New York City to visit Roman inspired gardens at the Met Cloisters and the Untermyer Park and Gardens 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*

Foreign Language - Mandarin

[refer to end of document for course sequence map]

Mandarin I

FL-100M

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

FL-200M

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

FL-300M

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 (offered 2020-2021)

FL-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 (offered 2020-2021)

FL-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

FL-401M

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

FL-401M

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

Foreign Language - Spanish

[refer to end of document for course sequence map]

Spanish I

FL-100S

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

FL-200S

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

FL-300S

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

FL-350S

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 TV shows and films. 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 approval

Spanish Seminar: Trailblazers in the Spanish-Speaking World (offered 2020-2021)

FL-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 (offered 2020-2021) FL-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 FL-401S

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 FL-401S

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 FL-450S

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: *Spanish III/IV Honors or one year of 400-level electives with department approval*

Spanish in a Global Context

FL-410S

This immersive course is designed for advanced learners. Students will increase their knowledge and fluency in the Spanish language through select readings of contemporary Latino(a)-American literature, 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* annual community event called Family Day, for which they conduct interviews, transcribe and translate oral interviews, and coordinate bilingual tours at the Worcester Historical Museum.

4 blocks - full year

Prerequisites: *AP Spanish Language and Culture and/or department approval.*

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*

History

[refer to end of document for course sequence map]

The Development of Our Global World

HI-100

This course examines selected themes in World History, from the 1500's to the recent past. Major topics include the Renaissance, the Reformation, the Scientific Revolution and the Enlightenment, the

French Revolution, the emergence of modern political ideologies, nation-building and imperialism in the nineteenth century, the World Wars and the Cold War. The focus of this course is the investigation, identification and definition of significant global historical figures, events and ideas that have shaped the past and present. Students will work to develop the skills of a historian, including careful reading, critical thinking, primary-source analysis, and analytical writing.

4 blocks - full semester

Prerequisites: None. Required for all freshmen.

United States History

HI-200

This course will examine United States history from the late colonial period to the 1990's. Emphasis will be placed on the US Constitution, development of political parties, the geographic and industrial growth of the nation, the effects of and conflicts caused by regionalism and conflicts, the rise of the US as a world power, the evolution of the role of the federal government in the lives of American citizens. During the school year there will be a curriculum stop, when all students will work on a historical research paper. The purpose of this project is to gain understanding of the research and writing process, as well as gain knowledge on their chosen topic.

4 blocks - full year

Prerequisites: *The Atlantic World and Civics*

Advanced United States History

HI-250

Advanced United States History provides both an overview and deeper thematic consideration of United States history from 1800 to the 20th century. The course is meant to give advanced students a base of knowledge but also to prepare them to be thoughtful citizens. Seminar style classes will be driven by extensive nightly reading from primary and secondary sources. The intent is not to cover all aspects of American history but to deeply consider those topics most relevant to understanding the present day, particularly civil rights & race, governmental scope & function, individual rights, and foreign policy. Additionally, the course seeks to develop skills in historical inquiry and interpretation. This includes the ability to critically analyze primary and secondary sources and to express historical perspectives and analytical arguments. Evaluations will take the form of papers and projects with particular emphasis placed on concise, cogent and coherent writing. Students will leave the class with a better grounding in recent issues, more facility with historical thinking and writing, and better prepared to succeed in college and in our civil affairs.

4 blocks - full year

Prerequisites: *The Atlantic World and Civics and department approval.*

AP European History

HI-450

The AP European History course is designed to prepare students for the AP test given in the spring. It is the objective of the course to provide the student with an understanding of the complex forces dominating the European historical experience between 1250 and 2000 and their subsequent impact upon contemporary Western culture, values and institutions. The course is a demanding one with the synthesis of an extensive range of both factual and conceptual material central to the daily class agenda. 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

The ultimate goal of this course is to push past the antiquated view of history as mere facts and dates and drill down into historical content to develop perspective and understanding. Students will research a topic of their choice guided by the teacher that fits into the framework of the National History Day theme for the chosen year. The students will strengthen their research, reading and critical thinking skills as well as their problem-solving skills as they move through the research process. The students will fine tune their research skills, by finding and reading primary and secondary sources to create a project that falls within the framework of the projects as designated by the National History Day. Students will be required to attend the Regional Massachusetts History Day competition in early March and be judged on their projects. Depending on their status at that competition, the students could possibly advance to the Massachusetts State History Day competition in early April as well as to the national level of the National History Day competition in June.

4 blocks - full year

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

Second Semester Courses for Grades 11 and 12 - offerings will vary year to year:

Protest & Revolution

HI-511

What is revolution? Why does it happen? We will explore the history and impact of major revolutions and protest movements throughout modern world history: French Revolution, Bolshevik Revolution, Cuban Revolution, South African Anti-Apartheid movement, and the 1960's worldwide cultural liberation movement. Students will explore organization, assembly, unity, and leadership as vital elements for creating change and helping those who experience injustice to find a voice. From folk to rap, from boycott to divestment, from non-violence to violence, from conservatism to drugs, sex, and rock-n-roll, we will work to answer the questions of: What leads to revolution? When does a revolution succeed? When does a revolution fail? What makes a revolutionary? Students will learn about methods that different groups of people around the world have used to make their opinions heard and to bring important political, economic, and social change to their lives. The course will culminate with students choosing a historical or contemporary figure and examining their role as a revolutionary -- in whatever way that may be!

4 blocks - fall or spring semester

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

“This Just In”

HI-508

In today's world of fake news and information overload, how can you trust what you see on TV and read online? Learn to make it yourself.

In this interactive and involved course, students will work together in order to gain the skills to research and produce a shareable news program of their own. Through engagement with technology, to classroom collaboration, “This Just In” calls for individuals with a desire to create and to educate

both themselves and their peers. The end goal: to share our work and our earned knowledge with the Upper School Student Body through completed broadcasts of our own for all to enjoy.

4 blocks - fall or spring semester

Prerequisites: United States History or Advanced United States History

Native Cultures of the America's

HI-509

Native Cultures is an anthropological study into various current and past native peoples in North, Central, and South America. The course focuses on the lives and experiences of the people themselves from their own context rather than through the lens of colonization or exploration. Specific tribes and cultural regions will be deep-dive studied with an emphasis on topics such as cultural history, geographical impact, social interaction, daily life, and cuisine, as well as how modern technology is unveiling many civilizations previously lost to history. Focus skills of the class will be research, discussion, and presenting.

4 blocks - fall or spring semester

Prerequisites: United States History or Advanced United States History

Conflicts in World History

HI-506

In our media driven society where much fact is based on fiction or misinterpretation of events, this one semester course will evaluate the use of film as a medium to examine historical events in world history. Students will study various events, people, and political movements using traditional sources such as books, articles, databases and primary source documents. They will then view the events in film adaptation and evaluate and critique the historical accuracy in a history vs. Hollywood fashion. There is a strong emphasis on analytical writing in this course. Some possible films and time periods to be examined are Dances With Wolves (the settling of the great American west), All The President's Men (the Watergate scandal), Far From Heaven (conformity and racial/gender stereotypes in 1950's America), A Man For All Seasons (Henry VIII and the English Church), Schindler's List (the Holocaust and World War II) and Gandhi (British Imperialism of the 19th /20th century).

4 blocks - fall or spring semester

Prerequisites: United States History or Advanced United States History

Learning Support Center

Academic Support

AS-

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

LS-

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

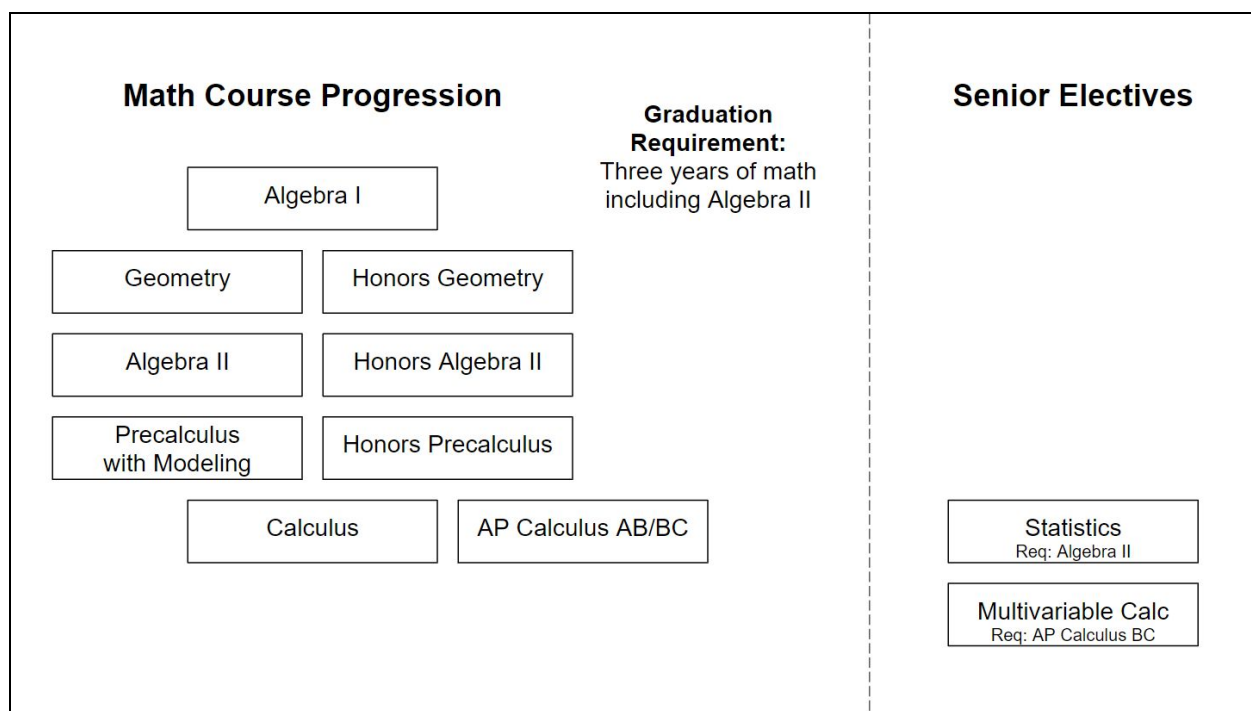
Prerequisite: *Department approval*

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

Most courses below are offered each year. However, please check your course request form for specific courses that are being offered for the upcoming school year

Algebra I

MA-050

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

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

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

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

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-310

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

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, DeMoirve'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

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

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

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

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-570

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.*

Performing Arts

[refer to end of document for course sequence map]

Acting

PA-100

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

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 or spring semester

Prerequisites: *Acting I or instructor permission*

Acting III

PA-300

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 or spring semester

Prerequisites: Two semesters of Acting II or instructor permission

Technical Theater

PA-110

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.*

Credits: 0.25/semester

Prerequisites: None

2 blocks - half year

Chamber Singers

PA-131

Chamber Singers is an ensemble of mixed level and mixed voice type that will explore many different genres of music, spanning from classical to contemporary, renaissance to pop, folk to jazz. Work will include learning to read music and sing in harmony with other singers. There will be multiple performance opportunities during the school year as a singular ensemble and as a leader for the MS and LS choruses. For those so inclined, the course will also serve to strengthen skills for other singing opportunities in the Upper School, like the *a cappella* groups and the spring musical. *This course can be taken for credit more than once.*

Credits: 0.5/semester

Prerequisites: None

2 blocks - full year

Song and Stage

PA-135

Upper School students with mixed experience and abilities work with two teachers to discover how to present song on stage. Using the music from the Musical Theater genre, students will be taught how to find characters appropriate for their voice type. They will be led through activities to help develop a presentation of those characters with their bodies. In working in partnerships, they will work to find out how to be supporting actors as well as lead actors in a singing scene. Through both individual and group vocal instruction, students will find their own unique vocal quality. With their own style and voice, they will discover how to bring a character's emotions to life in their sound. This course can be taken for credit more than once.

4 blocks - spring semester

Prerequisites: None

String Chamber Ensemble

PA-140

This course is for students who play a stringed instrument and are interested in playing music of varying genres arranged specifically for string orchestra. 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: *Ability to play appropriate instrument*

Rock Band

PA-150

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*

Wind Chamber Ensemble

PA-160

This course is for students who play a wind instrument or piano and are interested in playing music of varying genres. 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: *Ability to play appropriate instrument*

Music Theory

PA-170

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

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

Physical Education

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

Minimum: 12, Maximum: 24

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.

Minimum: 6 Maximum: 16

2 blocks - fall 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.

Minimum: 8, Maximum: 16

2 blocks - spring semester

Prerequisites: None

Lifetime Walking for Fitness

PE-105

This class will help participants focus on improved physical fitness and wellness through a progressive walking program. Emphasis on cardiovascular fitness, posture, hydration, stretching and conditioning exercises. Students will take part in the Rockport Fitness Walking Test at the start of the semester and again at the conclusion of the class. Class will be held outside around the campus, neighborhoods and in the Field house. Dressing appropriately for the weather will be required.

Minimum: 6 Maximum: 18

2 blocks - fall semester

Prerequisites: None

International Games

PE-111

Come play, learn and explore games played all over the world. Croquet, Rugby, Salau, Pateka, Bocce Ball, Badminton, Curling and more! Learn the rules, skills, and strategy of these fun international games and where they originated. Be ready to be active and play!

Minimum: 8 Maximum: 16

2 blocks - spring semester

Prerequisites: None

Dance, Music and Movement

PE-108

This class gives the students the ability to “Own Their Own Learning.” Students will work together to choreograph a dance, practice, and perform for an authentic audience. The students will also have the opportunity to choose and lead the class in a variety of dances, such as Ballet, Tap, Hip Hop, Modern Dance, etc. Each student will choose a dance type that they would like to perform and lead their classmates in the basic dance steps.

Minimum: 6, Maximum: 24

2 blocks - spring semester

Prerequisites: None

Play, Play, Play...Games, Games and more Games!

PE-110

Run, move and play in this active class as you participate in some old time favorite team games. Mat Ball, Ultimate Ball, Anything Goes, Capture the Flag, Boom Ball, Lord of the Rings, Crystal Caves, Tag Games, Kick Ball

Minimum: 16, Maximum: 28

2 blocks - spring semester

Prerequisites: None

Yoga and Pilates

PE-109

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.

Minimum: 6, Maximum: 12

2 blocks - fall semester

Prerequisites: None

Science

[refer to end of document for course sequence map]

Environmental Science

SC-100

This class is an introductory level environmental science course intended for freshman. 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

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

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

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: *A- or higher in Chemistry and department approval*

Biology

SC-300

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.

4 blocks - full year

Prerequisites: *Chemistry or Integrated Chemistry*

AP Biology

SC-350

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. The volume of material is substantial, but the course is designed around four big ideas (evolution, cellular processes, genetics and information transfer, and interactions) to make it easier to organize all of the material. 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: *B+ or higher in AP Chemistry or A- or higher in Biology and department approval*

Physics of Engineering

SC-400

Physics of Engineering is an algebra-based introductory physics course with an emphasis on the application of physics to engineering problems. It includes a solid grounding in basic Newtonian physics and frequent hands-on laboratory work, emphasizing the evolution of ideas from experimental observation to mathematical modeling. Engineering projects are a core part of the coursework. The topics studied include: kinematics, linear momentum and Newton's laws of motion, work and energy, and oscillations and waves.

4 blocks - full year

Prerequisites: *Junior or senior standing, A- or higher in Algebra II or B+ or higher in Honors Algebra II and science department approval.*

AP Physics C (Mechanics)

SC-450

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 content areas studied are: kinematics; linear momentum and Newton's laws of motion; work, energy, and power; 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 AP Calculus). 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 LoggerPro software, along with other measurement apparatus, and Microsoft Excel or Google Sheets 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 - full year

Prerequisites: *Completion of or current enrollment in AP Calculus*

Science & Engineering Inquiry: Research & Proposal

SC-601

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 or spring semester

Prerequisites: Junior or senior standing and department approval

Science & Engineering Inquiry: Design & Experimentation I

SC-602

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 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

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

4 blocks - fall 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.

Psychology I

SC-501

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

Psychology II

SC-502

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.

4 blocks - spring semester

Prerequisites: Psychology I

Case Studies in Psychopathology

SC-504 (offered 2021, 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*

Social Psychology

SC-505 (offered spring 2022, and every other year thereafter)

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 online gaming, the psychology of love & attraction in relationships, and the seduction of cults.

4 blocks - spring semester

Prerequisites: *Psychology I*

Human Anatomy & Physiology

SC-510

This course is an overview of Human Anatomy and Physiology with an in-depth focus on several organ systems. How the body maintains homeostasis through organ system interactions is an underlying theme. 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 maintain homeostasis. Student projects will allow individual exploration of areas of human health.

4 blocks - spring semester

Prerequisites: *One semester of Biology*

Marine Science

SC-520

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-Summer 2023

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.

Sign up for this course is separate from course selection for 2021-22 school year! Please see the online sign up under "Bancroft Summer Programs" on school's website.

2 blocks - summer

Prerequisites: Sophomore standing or age 14 years, 9 months

Sustainability in the Land of Ice And Fire

SC-570-Summer 2022

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.

Sign up for this course is separate from course selection for 2020-21 school year!

2 blocks - summer

Prerequisites: None

Ecological Study of the Greater Yellowstone Ecosystem

SC-580-Summer 2021

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.

Sign up for this course is separate from course selection for 2019-20 school year!

2 blocks - summer

Prerequisites: None

Visual Arts

[refer to end of document for course sequence map]

Introductory Studio Art

VA -100-Fall/Spring

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.

Credits: 0.5/year **Prerequisites:** None

Intermediate Studio

VA-200 Spring

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.

Credits: 0.5/year;

Prerequisites: Introductory Studio Art or instructor permission

Studio III (a)

VA-300 Fall

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 a college portfolio for the Advanced Visual Portfolio Class. Field trip to regional and local art museums will be part of this course, such at the MFA, ICA, or Mass Moca.

Credits: 0.5/year;

Prerequisites: Intro Studio or instructor permission

Studio III (b)

VA-300 Spring

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.

Credits: 0.5/year;

Prerequisites: Intro Studio or instructor permission

Advanced Visual Portfolio

VA-400

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.

Credits: 1.0/year

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

Global Art History - Culture, Countries, and Creativity

VA-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.

Credits: 1.0/year

Prerequisites: Sophomore, Junior or Senior standing

Digital Media - Visual Culture & Postmodern Ideas

VA-101 Fall

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.

Credits: 0.5/year;

Prerequisites: None

Introduction to Digital Photography

VA-102 Fall Spring

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.

Credits: 0.5/year; course meets all year; 3 meetings per rotation

Prerequisites: None

Digital Photography II

VA-202-Spring

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 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.

Credits: 0.5/semester

Prerequisites: Introduction to Digital Photography

Introductory Ceramics

VA-104-Fall

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.

Credits: 0.5/year

Prerequisites: None

Ceramics II

VA-204-Spring

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.

Credits: 0.5/year

Prerequisites: Introductory Ceramics

Ceramics III

VA-301-Spring

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.

Credits: 0.5/year

Prerequisites: *Ceramics I and II*

Digital Painting and Animation

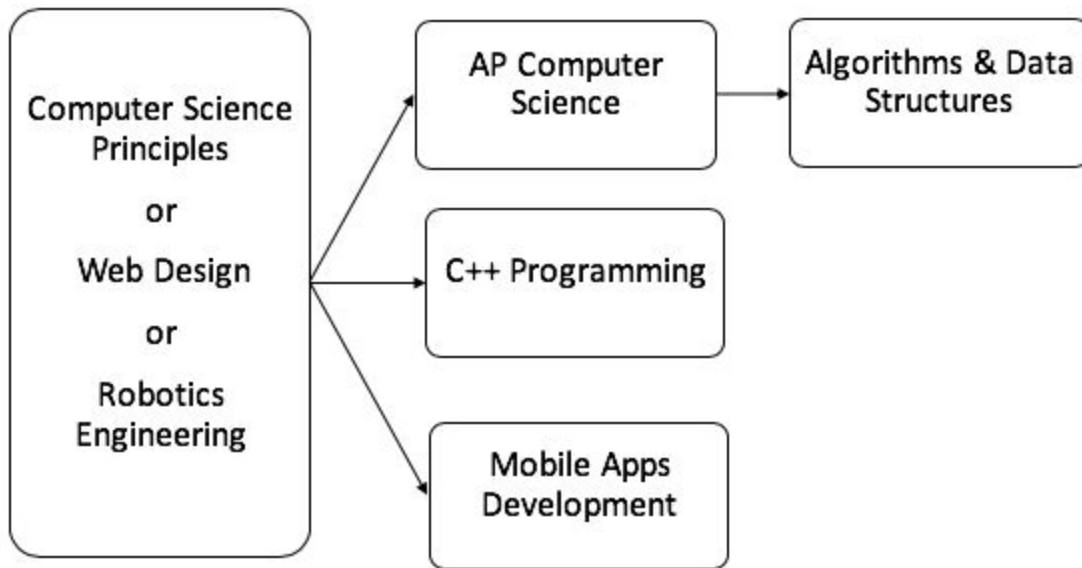
VA-210 Spring

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.

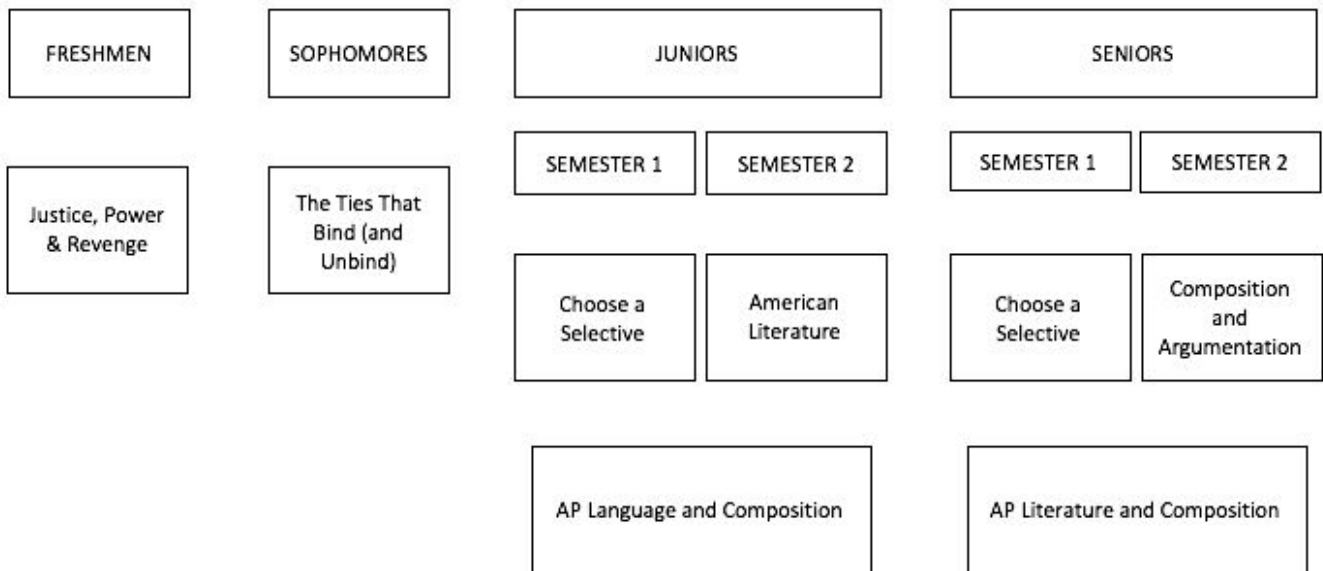
Credits: 0.5/year;

Prerequisites: Introductory Studio Art or instructor permission

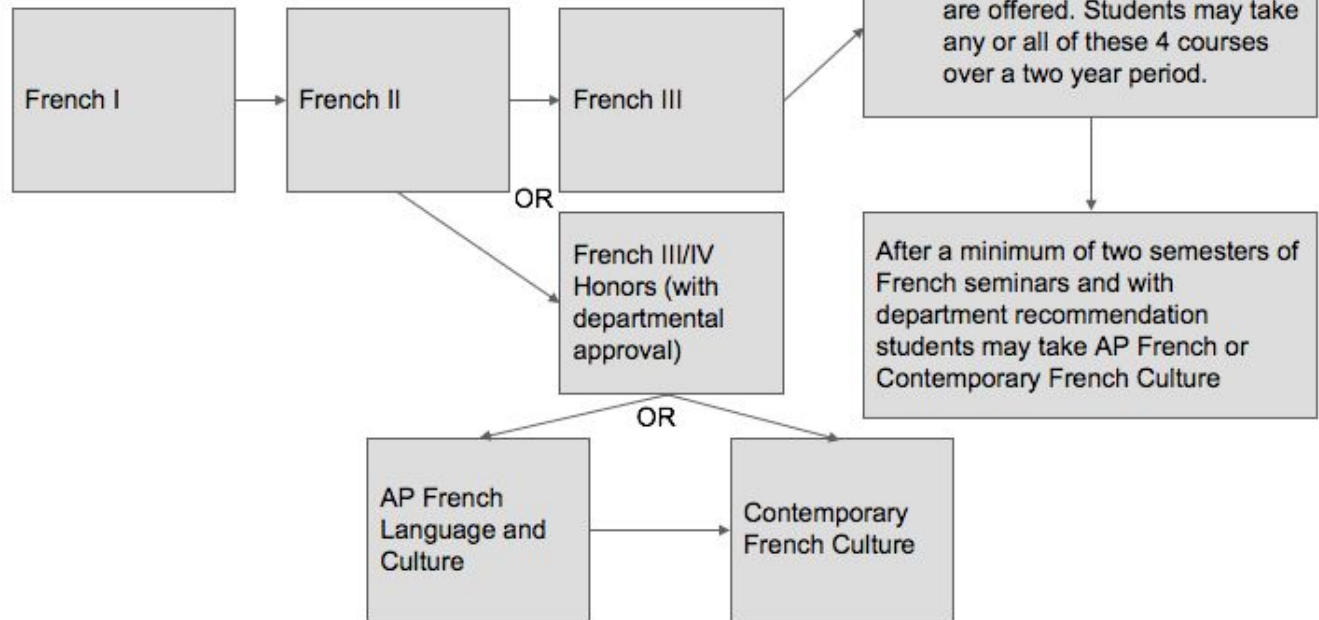
COMPUTER SCIENCE COURSE SEQUENCE



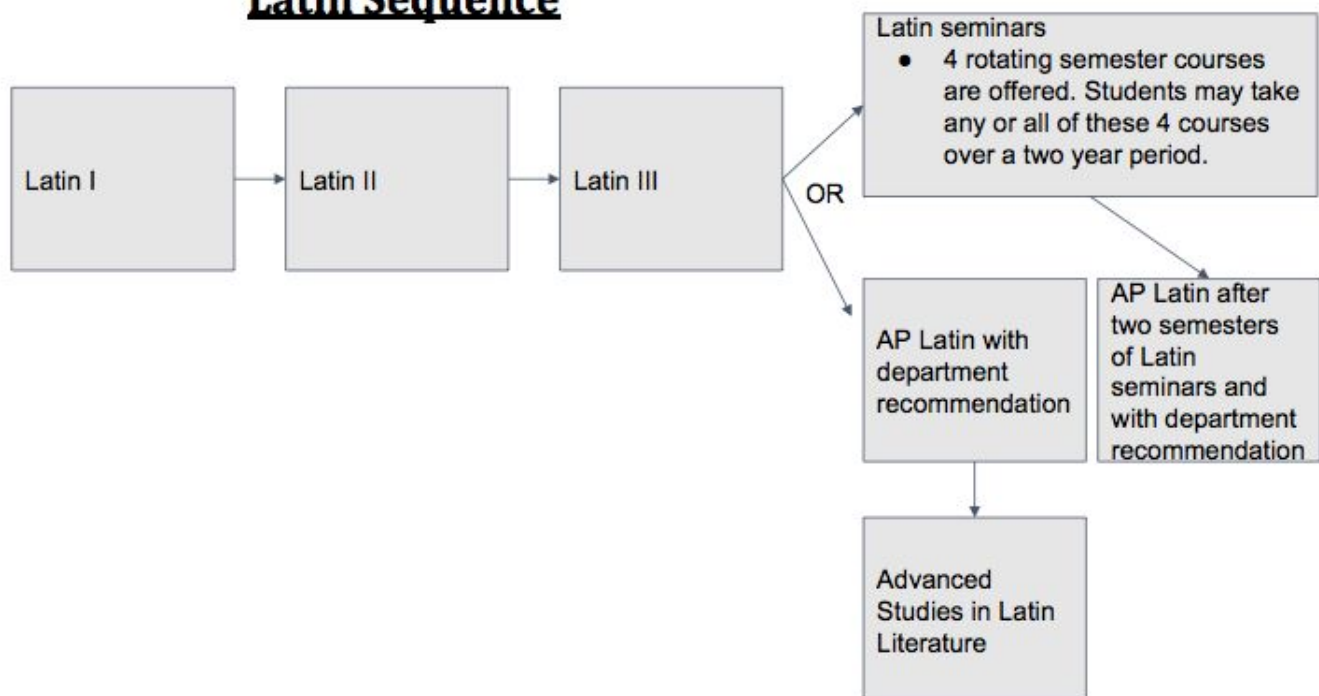
ENGLISH COURSE SEQUENCE



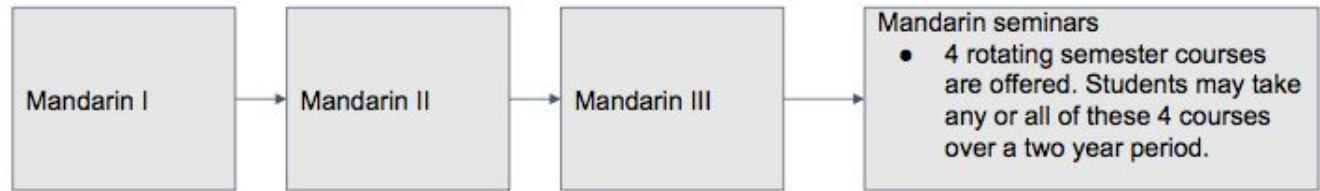
French Sequence



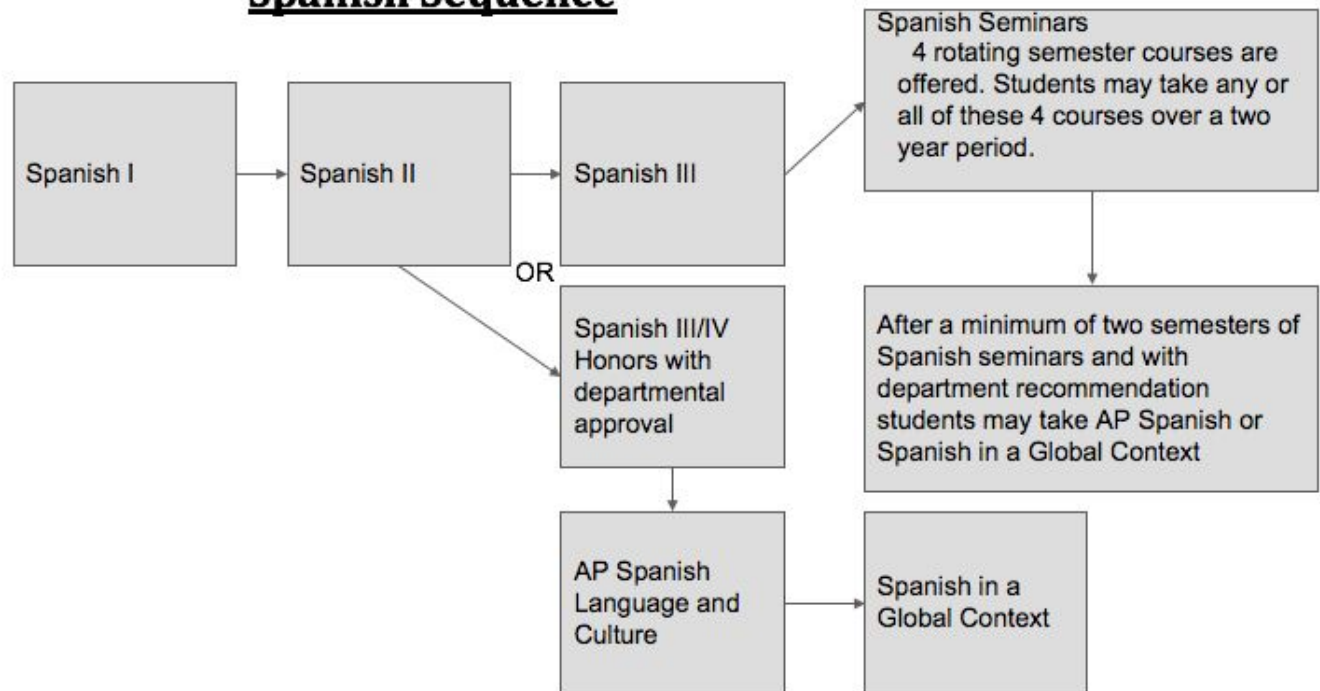
Latin Sequence



Mandarin Sequence



Spanish Sequence



HISTORY COURSE SEQUENCE

FRESHMEN

The
Development of
Our Global
World

SOPHOMORES

U.S. History or
Adv. U.S.
History

JUNIORS/SENIORS

SEMESTER 1

History
Selective

SEMESTER 2

History
Selective

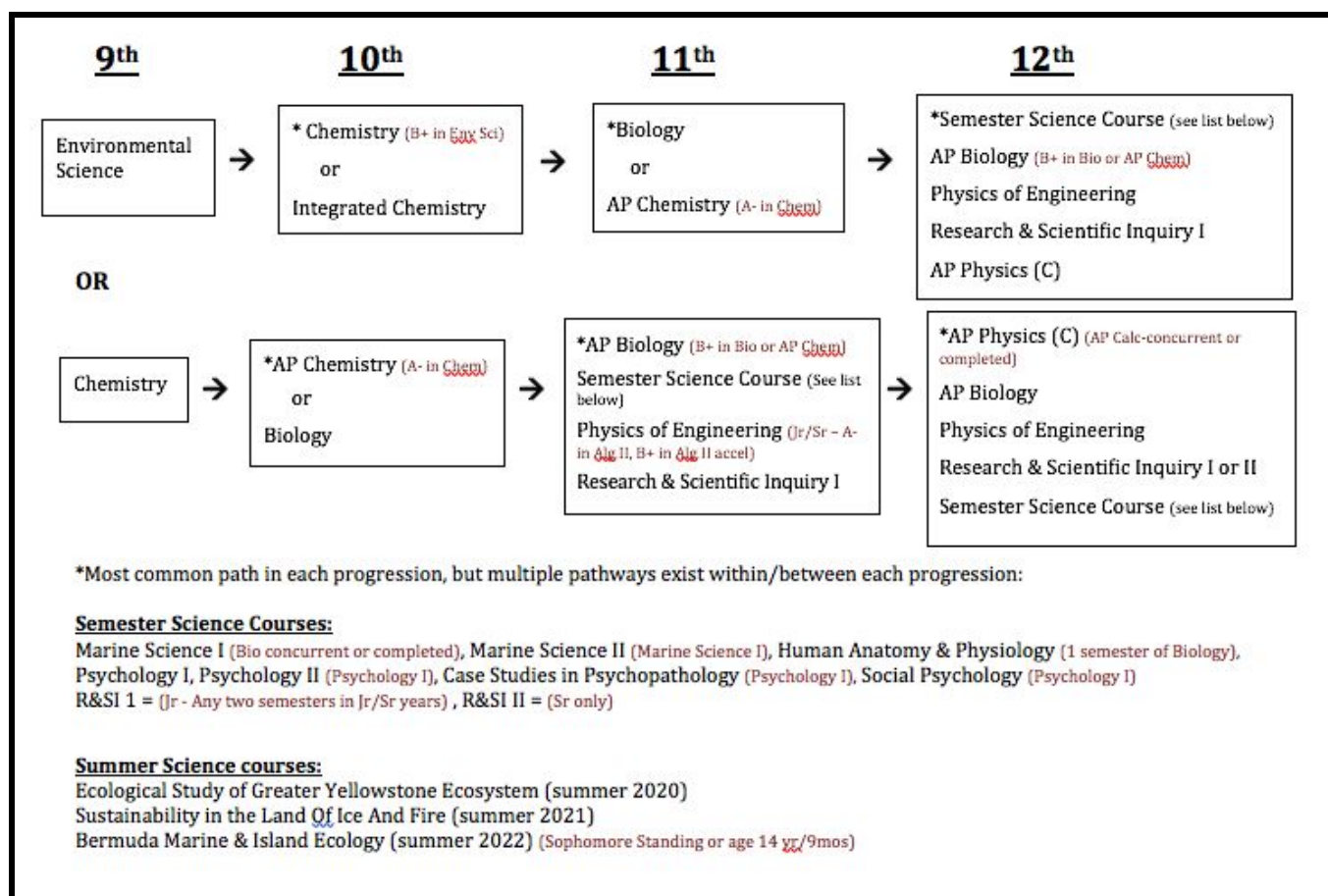
AP European History

Research and Historical Inquiry

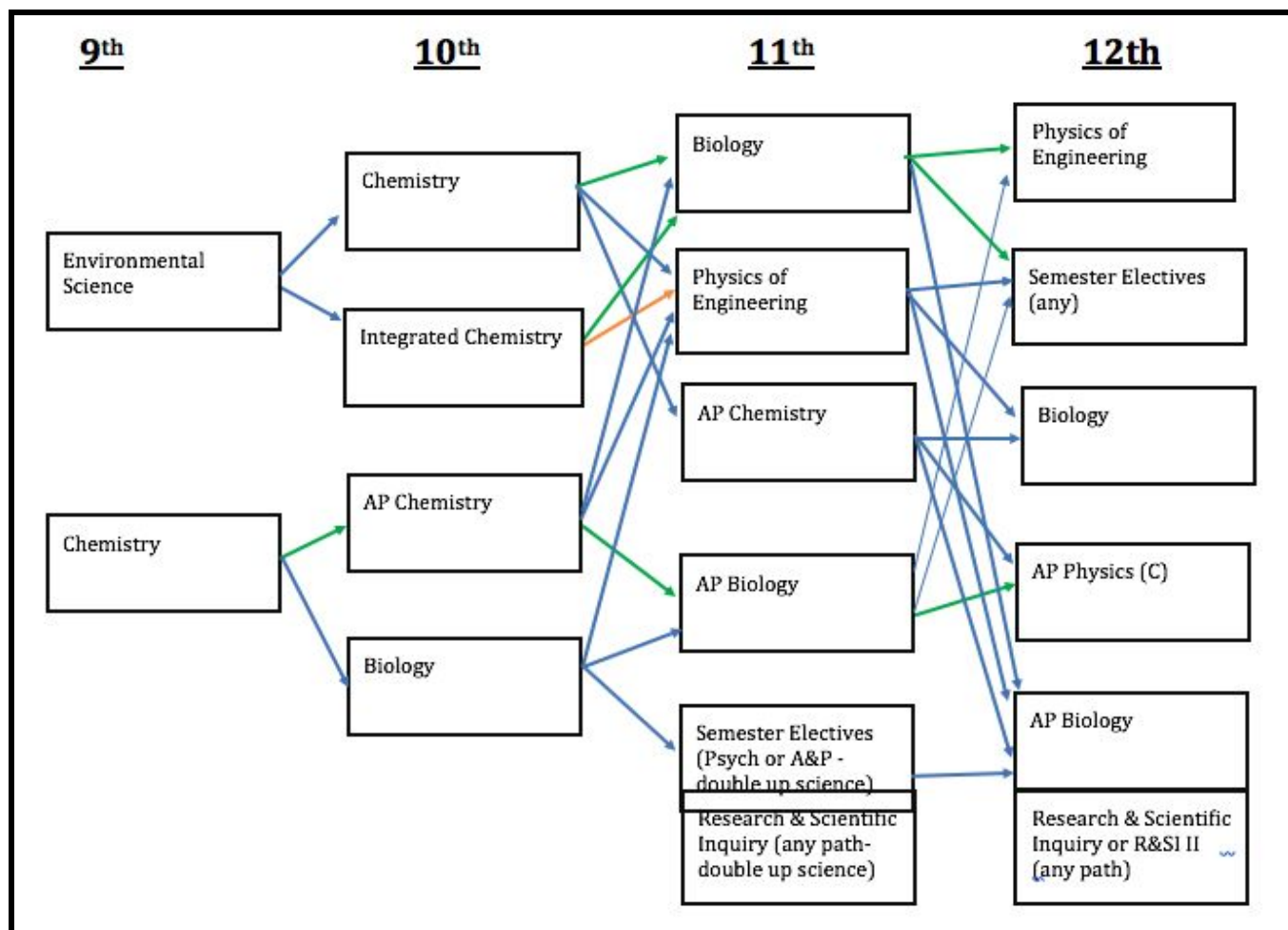
Performing Arts Sequence

- 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

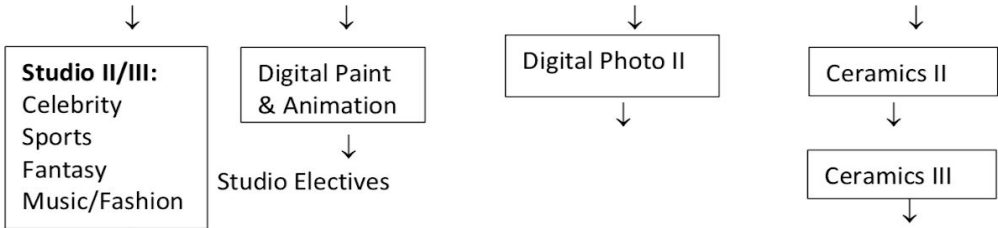


SCIENCE COURSE SEQUENCE



Visual Art Program 19/20

Intro Studio Digital Media Intro to Dig Photo Intro to Ceramics Global Art History



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

Advanced Visual
Portfolio