Course Catalog

2025 - 2026

Table of Contents

Curricular Overview for Semester-Immersive Schedule

9th Grade

Semester 1 Students take 5 courses	Immersive 1 Students take 1 course	Semester 2 Students take 5 courses	Immersive 2 Students take 1 course
Humanities 1a **Conceptual Physics 1a** **The Creative Process** **Math course, part a** **Language course, part a**	**ELECTIVE** Choice among 9th-grade specific electives (see catalog)	**Humanities 1b** **Conceptual Physics 1b** **Arts elective, part a** **Math course, part b** **Language course, part b**	**CORE** Choice among 9th-grade core Hum1 (English) menu of options

10th Grade

Semester 1 Students take 5 courses	Immersive 1 Students take 1 course	Semester 2 Students take 5 courses	Immersive 2 Students take 1 course
Humanities 2a **Chemistry 1a** **Math course, part a** **Language course, part a** **Arts elective, part b**	**CORE** Choice among 10th-grade core Hum2 (English) menu of options	**Humanities 2b** **Chemistry 1b** **Math course, part b** **Language course, part b** **Civics**	**ELECTIVE** Choice among upper-level Immersive 2 electives (see catalog)

Notes: Some 10th-graders may elect to begin a new arts sequence with a "part a" course or take a Computer Science course in place of their "Arts elective, part b" course. Those students are encouraged to follow their interests and will be required to complete an arts sequence (part a and part b) before graduation.

11th Grade

Semester 1 Students take 5 courses	Immersive 1 Students take 1 course	Semester 2 Students take 5 courses	Immersive 2 Students take 1 course
American Studies a **Biology 1a or 2a*** **Math course, part a** **Language course, part a**** **elective**	**ELECTIVE** Choice among upper-level Immersive 1 electives (see catalog)	**American Studies b** **Biology 1b or 2b*** **Math course, part b** **Language course, part b**** **elective**	**ELECTIVE** Choice among upper-level Immersive 2 electives (see catalog)

Notes: In their semester and immersive electives, 11th-graders are strongly encouraged to take 2 terms of electives that complete Bay's additional graduation requirements.

**Most 11th-graders take Biology 1, however, students may apply to take Biology 2 (an honors-level course). See the course description for more information on how to apply to take Biology 2.*
***Students who placed into Mandarin 5 will have completed the language requirement by the end of 10th grade. These students will take 2 additional 11th- and 12th-grade electives.*
***Juniors can elect to start their Senior Project in the Spring semester. See course description for more information.

12th Grade

Semester 1 Students take 5 courses	Immersive 1 Students take 1 course	Semester 2 Students take 5 courses	Immersive 2*
Senior Signature Project 1a **elective** **elective** **elective** **elective**	**ELECTIVE** Choice among upper-level Immersive 1 electives (see catalog)	***Senior Signature Project 1b*** **elective** **elective** **elective** **elective**	12th-graders do not take an Immersive 2 course. They are encouraged to pursue their own interests through self-directed learning.

Notes: In order to fulfill graduation requirements, students must complete the following: 6 terms of math, 6 terms in a single language, 3 terms of English electives (at least 2 must be completed during the semesters), 1 term of social studies elective, 1 term of religion/philosophy elective, 1 term of science elective, and an arts sequence (part a and part b). These requirements can be fulfilled through electives taken either in semesters or in immersive terms.

**12th-graders may opt-in to an Immersive 2 course by completing the 12th-grade Immersive 2 Application.*

2025-2026 Academic Calendar (use this link for most up-to-date version)

THE BAY SCHOOL OF SAN FRANCISCO

SCHOOL-WIDE CALENDAR 2025-2026*

SEMESTER 1 (AUG 18 - NOV 20)
IMMERSIVE 1 (DEC 2 - DEC 19)

SEMESTER 2 (JAN 12 - MAY 5)
IMMERSIVE 2 (MAY 11 - MAY 29)

2025

August

8/04-07	Jump Start
8/06-07	New Staffulty Orientation
8/08, 11-12	Opening Days for staffulty
08/11	Fall Sports Season Begins
8/13-14	12th grade Overnight Retreat
8/13	Transfer Student Orientation (9-11:30am)
8/13	11th grade Orientation (11:30am- 3pm)
8/13	9th grade Parent Zoom Orientation (6-7pm)
8/14	9th grade Orientation: Part I (all day)
8/15	9th grade Orientation: Part II (½ day, AM)
8/15	10th grade Orientation (10:30am-3pm)
08/18	**First Day of Classes for Semester 1**
(TBD)	Advisor Conferences in Afternoon(s)

September

9/01	Labor Day **(school closed)**
9/04	Back to School Night

October

10/08	**Midterm for Semester 1**
10/09	New student conferences **(no classes)**
10/10	Staffulty Work Day **(no classes)**

November

11/03	Winter Sports Season Begins
11/20	**Last Day of Classes for Semester 1**
	Staffulty PD **(½ day of classes)**
11/21	Immersive 1 Prep Day **(no classes)**
11/22-30	Fall Break (no classes)

December

12/01	Immersive 1 Prep Day **(no classes)**
12/02	**First Day of Classes for Immersive 1**
12/19	**Last Day of Immersive 1/Exhibition**
12/20-1/04	Winter Break **(no classes)**

2026

January

1/05-07	Staffulty Work Days **(no classes)**
1/08-09	Winter Institute for Staffulty **(no classes)**
1/12	**First day of classes for Semester 2**
1/19	MLK Jr. Day **(school closed)**

February

2/09	Spring Sports Season Begins
2/16	Presidents' Day Holiday **(school closed)**
2/17	No Classes
2/26	**Midterm for Semester 2**
2/27	Staffulty Grading Day **(no classes)**

March

3/23-27	Admissions Revisit Week
3/30-4/05	Spring Break **(no classes)**

April

4/06	Staffulty PD Day **(no classes)**

May

5/05	**Last Day of Classes for Semester 2**
5/06-08	Immersive 2 Prep Days **(no classes)**
5/09	**Graduation**
5/11	**First Day of Classes for Immersive 2**
5/25	Memorial Day **(school closed)**
5/29	**Last Day of Immersive 2/Exhibition**

June

6/01-02	Staffulty Work Days **(no classes)**

***Dates are subject to change.**

Last updated: 01.14.25

Athletics/Immersives Conflicts

Students and parents/guardians should note that the December immersive term occurs during winter sports seasons and the May term occurs during spring sports seasons. Spring athletes should note that many of the May immersives include significant overnight travel, and are likely to coincide with league and sectional playoffs should their teams qualify for postseason play. Student-athletes are expected to prioritize their immersives and will not be excused from trips to participate in sports games or practices. We strongly encourage spring and winter athletes to discuss their academic and athletic commitments with their coaches before ranking travel immersives among their top choices.

Graduation Requirements by Subject Area

Note: In the descriptions below, a "term" can be a semester or an immersive course. Each term equates to 0.5 credits toward graduation; a full year course provides 2 terms (1.0 credit) toward graduation. A student must earn 23.5 credits to earn a Bay high school diploma.

Arts

Students must complete 1.0 credits (2 terms) of a 1A and 1B sequence in a single genre of art (ex. Drama 1A and Drama 1B). All 9th graders also take the 0.5 credit (1 term) core course, The Creative Process.

Co-Curricular

In addition to their five semester courses, students must complete two terms of 9th-Grade Seminar (9th Grade), one term of Choices in Relationships (10th Grade), and two terms of College Counseling (11th/12th Grade). Students will be automatically enrolled in these courses and do not need to include them in their selection.

Ethnic Studies

Starting with the Class of 2026, all Bay students must complete 0.5 credits (1 term) of an elective with the Ethnic Studies designation. These courses exist in multiple departments and in both semester and immersive offerings. Courses with the Ethnic Studies designation can also be counted toward other graduation requirements (for example an English class with the Ethnic Studies designation counts *both* as an English credit *and* the Ethnic Studies credit).

The following courses in the 2025-2026 Course Catalog meet the Ethnic Studies designation:

- *African Studies*
- *Asian American Literature*
- *Civil Rights in the American South (Immersive)*
- *Ethnic Studies: Race, Class, and Gender*
- *Geologic, Environmental, and Human History of the California Gold Rush (Immersive)*
- *Indigenous American Literature*
- *Queer History*
- *Spanish Language & Community Engagement, History, and Culture in Guatemala (Immersive)*
- *Topics in Literature: Breaking the Singular Story (Honors)*

English

In addition to the core Humanities courses that include literature and writing components (Humanities 1, Humanities 2, Civics, and American Studies), students must complete 1.5 credits (3 terms) of English electives. At least 2 of the electives must take place in the semesters.

Math

Students must complete 3.0 credits (6 terms) in mathematics. Students typically complete this requirement in their first three years at Bay; they are encouraged to continue their studies beyond this requirement.

Religion and Philosophy

In addition to the core Humanities courses (Humanities 1, Humanities 2, and American Studies), students must complete 0.5 credits (1 term) in a religion or philosophy elective at some point during their time at Bay.

Science
Students must complete 3.5 credits (7 terms) in the sciences. Students entering Bay in 9th grade (as well as most transfer students) will fulfill 3.0 credits of this requirement by completing Bay's core science sequence: Conceptual Physics 1, Chemistry 1, and Biology (either Biology 1 or Biology 2). Students must complete an additional 0.5 credit (1 term) of a science elective at some point during their time at Bay.

Senior Projects
Students must complete the 1.0 credit (2 terms) Senior Project course. See the Senior Projects course descriptions below.

Social Studies
In addition to the core Humanities courses that include social studies components (Humanities 1, Humanities 2, Civics, and American Studies), students must complete 0.5 credit (1 term) in a social studies elective at some point during their time at Bay. Students are encouraged to continue their work in social studies beyond this requirement.

World Languages
Students must complete 3.0 credits (6 terms) in a single language. Students who place into Mandarin 5 will fulfill the requirement in two years, by taking Mandarin 5 and Advanced Topics in Mandarin. Most students complete the language requirement in their first three years at Bay; they are encouraged to continue their language studies beyond this requirement.

Immersive Course Offerings

Note: Immersive courses are subject to enrollment minimums. Some immersive courses are offered on a rotating basis and/or are subject to change. Students should consider the impact of Immersives with overnights conflicting with Winter Athletics.

Immersive 1 (December) Courses

9th-grade course offerings:

- Assembling San Francisco: Geology of the Greater Bay Area (Science)
- Bird Nerds: Flight and Field Ornithology (Science)
- Infinite Geometries: The Art of Islam (Mathematics)
- How Can We All Get Along? (Social Studies)
- Mathematics of Digital Animation (Mathematics)

10th-grade core English Immersive:

- Fiction on the Page and Stage
- Rhetoric and Debate
- Shakespeare Unbound
- Spoken Word Poetry

11th- & 12th-grade course offerings by dept:

ARTS

- Museum Studies*
- Modern American Family*
- Technical Theater

ENGLISH

- Essential Questions Through Film
- Futures Past and Present
- Modern American Family*
- Stories of San Francisco

RELIGION/PHILOSOPHY

- Buddhism

SCIENCE

- Applied Chem: Better Cooking Through Chemistry
- Astronomy: Observatory
- Marine Biology

SOCIAL STUDIES

- Museum Studies*
- Poverty and Justice

INTERDISCIPLINARY (UC "G" college-prep elective)

- Construction Techniques
- Cybersecurity and Ethical Hacking
- Wilderness First Responder

* Cross-listed course. These courses can be used for credit in either of the two departments they are listed in, but not both. Courses cannot be double-counted for credit.

Immersive 2 (May) Courses

9th-grade core English Immersive:

- Secrets of the City: Exploring San Francisco's Hidden Histories
- Sights, Sounds, and Flavors: Exploring the Soul of the San Francisco Bay Area
- Summer of Love: The Rebels, Dreamers & Change-Makers of 1967

10th- & 11th-grade course offerings by dept:

ARTS

- Filmmaking
- Building Beautiful Bamboo Bicycles at Bay: The Art and Science of Bicycle Fabrication*

Math

- Building Beautiful Bamboo Bicycles at Bay: The Art and Science of Bicycle Fabrication*

ENGLISH

- Civil Rights in the American South* ➢
- The Writer's Life: A Creative Exploration

SCIENCE

- Atmospheric Science and Engineering: Launching Near-Space Weather Balloons
- Biotechnology [11th only]
- California Geology: A Field Experience
- Fire Ecology
- Geologic, Environmental, and Human History of the California Gold Rush* ➢
- Water in the American West: The Eastern Sierra Nevada*

SOCIAL STUDIES

- Civil Rights in the American South* ➢
- Geologic, Environmental, and Human History of the California Gold Rush* ➢
- Water in the American West: The Eastern Sierra Nevada*

WORLD LANGUAGES

- Spanish Language & Community Engagement, History, and Culture in Guatemala➢

➢ Carries the "Ethnic Studies" designation

Immersive 1 (December): 9th-Grade Course Offerings

Assembling San Francisco: Geology of the Greater Bay Region
This 9th-grade immersive course is a field-based physical geology course focused on student-centered activities exploring the rocks, hills, and waters of the greater San Francisco area. Students can expect to spend at least half of the time hiking in San Francisco and further afield in the North, East, and South Bay. Students will also participate in an overnight trip to Point Reyes. At each locale, essential observations will progress from the micro of rock identification to the macro of formation type and forces, guided by the questions: *What is the story of this rock? What is the story of this place? What is the story of humans in this place?* A principal goal of this course is to build confidence and competence in the observational skills of students as budding scientists, helping them to develop a sense of what it means to be grounded in a context perhaps much more literal than they have considered before. **No prerequisite. Course Credit:** Science
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will likely include one or more required overnight trips.
- **LATE DISMISSALS:** Some field trips may require late dismissal from school.
- **PHYSICAL ACTIVITY:** This course will require hiking and significant time outdoors.

Bird Nerds: Flight and Field Ornithology
This 9th-grade immersive course is a field-based ecology course focused on student-centered activities exploring birds, flight, and ecology. Students can expect to spend at least half of the time hiking in San Francisco and further afield in the North, East, and South Bay. Students will also participate in at least one overnight trip. Students will observe and identify birds at each locale, guided by the questions: *What are the physics and physiology of flight? How do we promote and enhance bird diversity? How do birds inform conservation efforts at the ecosystem scale? How can we make sense of so many birds coexisting in the same environment?* A principal goal of this course is to build confidence and competence in students' observational skills as budding scientists. Birdwatching is a mindful exercise, and students will need to develop patience and practice stealth and stillness. **Prerequisite:** Conceptual Physics 1a. **Course Credit:** Science
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will likely include one or more required overnight trips.
- **LATE DISMISSALS:** Some field trips may require late dismissal from school.
- **PHYSICAL ACTIVITY:** This course will require hiking and significant time outdoors.

Infinite Geometries: The Art of Islam
Figural representation--is generally considered to be forbidden in Islam. This course explores the artistic traditions that emerged in Islamic art with the absence of humans and animals. Geometry, calligraphy, and biomorphic design are all disciplines of Islamic art. The interweaving of the three creates artistic works of mathematical complexity and great beauty. Students study manual constructions, symmetry, and tiling groups in order to better understand the ways that geometry can be used to create tesselations, and the ways in which art can help us better understand and illuminate geometrical relationships. This course centers around using straight-edge and compasses and their technological equivalents to construct geometric designs, and consider the ways in which Islamic (and other) artists use geometry to create art. The class culminates in the creation of a work of art that showcases the concepts and themes from the course. **No prerequisite. Course Credit:** Math
The following are required components of this course that are beyond school-based classes:

- **LATE DISMISSALS:** Some field trips may require late dismissal from school.

How Can We All Get Along?
How many times have we mistrusted, ignored, judged, or made assumptions about someone because we don't understand their culture or background? To learn how culture influences thinking and behavior, students begin by reflecting on their own personal narrative around culture. They also learn how to carefully observe human interactions in natural environments and analyze these observations to recognize and remove assumptions connected to culture, ethnicity, nationality, etc. Students in this course develop the skills to better appreciate the individuals that make up our society and to find solutions that address the complexity of interactions in a multi-cultural community. By the end of the course, students are able to challenge assumptions about other cultures and formulate possible solutions supported by informed and responsible decision-making.
No prerequisite. Course Credit: Social Studies
The following are required components of this course that are beyond school-based classes:

- **LATE DISMISSALS:** Some field trips may require late dismissal from school.
- **ACTIVITY:** This course requires students to feel comfortable being and behaving on trains, in city neighborhoods, in restaurants, and in a mall.

Mathematics of Digital Animation: Pixar Movies Behind the Scenes
In this course, students explore the math behind digital animation and modeling. Using Pixar films as a starting point, students learn about various stages in the digital animation process, from character development to fine-tuning digital animations. Students interact with these elements through digital tools, hands-on activities, hearing from professionals in the industry, and local field trips. Essential questions guiding our study include: *How does mathematics help model characteristics and phenomena we observe or imagine? How can we strategically manipulate character expression, movement and interaction to develop their identity? How can we use the iterative design process in our work connecting mathematics and the creation of an animated short film?* **No prerequisite. Course Credit:** Math
The following are required components of this course that are beyond school-based classes:

- **LATE DISMISSALS:** Some field trips may require late dismissal from school.

Immersive 1 (December): 10th-Grade Core (Public Speaking) Immersive Menu

Fiction on the Page and the Stage
In this workshop-style class, students experience the twofold nature of authorship: writing is both a solitary pursuit and a deeply collaborative process. As students produce and revise original works of fiction and creative nonfiction, they also share their work with various audiences: students participate in small-group and whole-class critiques, learning to read and offer feedback with a writer's eye; students interface with published authors, experiencing professional writing communities in the Bay Area; and students perform publicly a polished, revised original work. In support of their own writerly pursuits, students read and analyze works from a range of authors in order to expand their perspectives, writerly skill sets, and ability to cogently and empathetically discuss fellow writers' work. **Prerequisite:** Humanities 2A

Rhetoric and Debate
In this course, students will be introduced to the theories and practice of argumentation and competitive debate. This course will focus on the construction of arguments from the research to the presentation. We'll learn how Aristotle's concepts of Ethos, Pathos, and Logos can be applied to persuasion. We'll also explore different models of competitive debate available to high school students, including: Policy Debate, Public Forum Debate, Congressional Debate, and Lincoln-Douglas Debate. We also hope (schedule permitting) to have the opportunity to attend a local debate competition on one of the weekends during the immersive term. **Prerequisite:** Humanities 2A

Shakespeare Unbound
Why do we still read Shakespeare? Students practice critical reading and analysis by engaging directly with two of Shakespeare's plays. Steeped in Shakespeare's language and style, students study various adaptations of these plays, from classic, true-to-the-original adaptations to those loose adaptations that permeate contemporary pop culture. Students work both individually and collaboratively to identify and articulate themes and values from Shakespeare's original texts that translate to later adaptations. With these themes and values in mind, students begin developing their own adaptations of one of Shakespeare's plays; in the process, students work with Bay Area theater professionals to expand their skill sets and gain exposure to acting, directing, and performance studies. By the end of this course, students will have performed and unpacked a monologue of their choice, and imagined, designed, and executed a Shakespearean adaptation unbound from its original historical context. **Prerequisite:** Humanities 2A

Spoken Word Poetry
This 10th-grade Humanities immersive is all about poetry and performance. Students will study the emergence of Spoken Word Poetry as a powerful, genre-bending, political, personal, collective, adrenaline-fueled, and often revolution-centered art form. Spoken Word and performance poetry has often aligned itself with movements for social change. We will study Spoken Word's roots within traditions of oral histories and storytelling, as well as its relationship to Modern American Poetry, The Civil Rights and Black Arts Movements, and other social justice movements. Students will learn from a range of poets and writers, from early ancient poets to Walt Whitman, Malcolm X, Gwendolyn Brooks, Maya Angelou, Saul Williams, Beau Sia, Sarah Kay, Mahogany Brown, Joshua Bennett, and many youth poets across the United States; from which students will memorize and perform a published poem. During this course, students may have the chance to attend live poetry readings and open mics, as well as learn performance techniques from professional spoken word artists. The course will culminate in a final Open Mic, where students will perform an original poem addressing their own calls for social change. **Prerequisite:** Humanities 2A

Immersive 1 (December): 11th- and 12th-Grade Course Offerings by Department

Subject Area: Arts

Art History: Museum Studies
Artists take a diversity of approaches to interpreting our world – from the super-realistic to the expressively abstract – from the politically charged to the evocation of overwhelming beauty. What kind of art are you drawn to? This course uses the rich collections of the art museums of San Francisco as its learning lab. These museums chart the evolution of Modern Art from the seedbeds of Realism into the nurseries of Spiritual Expressionism and Formal Abstraction, eventually leading into the exciting diversity of approaches in Contemporary Art. You will develop an understanding of the strategies of modern painters, sculptors, photographers, and architects – and you will dig deep into a contemporary art movement of your own choosing. Most importantly, you will make art that mimics the strategies of contemporary artists, giving your own spin to the artistic ideas.. By putting yourself into another artist's shoes and mimicking their artistic practices, you will invigorate your understanding of this revolutionary period in art history. In the end, you will see how Contemporary artists interpret the world—its politics, its beauties, its tragedies—and you will develop your own personal language for inventing a creative universe.. **No prerequisite. Course Credit:** Arts **or** Social studies

Modern American Family
This course examines different family structures and dynamics through American visual art, literature, television, film, and various forms of nonfiction. Students explore how gender roles have changed throughout history and have been socially constructed. Exposure to the different interpretations of family encourages students to understand their own family makeup and their place in it. Class sessions include field trips, visiting artists, making art, looking at art, writing, reflecting, analyzing and decoding readings, and identifying the different constructs that exist in a household. Essential questions guiding the course of study include: *How have artists, writers, film-makers, and musicians explored family dynamics in their work? How do various representations of family structures/dynamics help us understand our own definition of family and our role in it?* **Prerequisite:** Humanities 2 ***Course Credit:** Arts **or** English
The following are required components of this course that are beyond school-based classes:

- **LATE DISMISSALS:** Some field trips may require late dismissal from school.

Technical Theater
The Technical Theater Immersive is a hands-on course that explores the creative and technical elements behind bringing a theater production to life. Through script analysis, research, and design projects, students will explore technical theater as both an art and a science while developing practical skills with a focus on safety and collaboration. Topics include: Set Construction – building and assembling set pieces using power tools; Scenic Painting – mastering a variety of theatrical painting techniques; Lighting and Sound – hanging and focusing lighting instruments, and operating control boards; Costuming – learning sewing fundamentals and costume design; Props – creating and managing functional props; and Makeup and Hair Design – learning stage-ready techniques to create detailed looks for characters. Opportunities for guest speakers and field trips to local productions provide real-world context, while students build a portfolio showcasing their sketches, research, and reflections. Designed for those passionate about the creative process, this immersive is perfect for students eager to explore the magic of behind-the-scenes theater-making. No prior experience is required!

Subject Area: English

Essential Questions through Film
Poet Rainer Maria Rilke encouraged readers to "be patient toward all that is unsolved in your heart and try to love the questions themselves…Live the questions." This course will explore film as a 20th and 21st century medium to love and live timeless questions. Students will view, write about, and discuss a selection of narrative films, analyzing the techniques that filmmakers use to tell their stories through sight and sound. Students will ultimately produce a brief video essay in which they describe how filmic techniques advance inquiry of an essential question in a film of their choosing. **Prerequisite:** Humanities 2

Futures Past and Present
Flying cars? Mars colonies? Underground houses? Strawberries the size of apples? *How did people in the past imagine the future? Why did they get things so absurdly wrong? What did they get uncannily right? What can we learn from these conjectures about the course of history? How can we make more insightful predictions and better prepare for our own future?* This class will explore the history of the future through literature and film; visit places where formerly cutting-edge technologies are being kept alive; examine the connections that link technologies like the wine press, loom, printed book, and computer; and engage in the process of "strategic foresight" to make our own predictions about the year 2056 and beyond. **Prerequisite:** Humanities 2

Modern American Family
This course examines different family structures and dynamics through American visual art, literature, television, film, and various forms of nonfiction. Students explore how gender roles have changed throughout history and have been socially constructed. Exposure to the different interpretations of family encourages students to understand their own family makeup and their place in it. Class sessions include field trips, visiting artists, making art, looking at art, writing, reflecting, analyzing and decoding readings, and identifying the different constructs that exist in a household. Essential questions guiding the course of study include: *How have artists, writers, film-makers, and musicians explored family dynamics in their work? How do various representations of family structures/dynamics help us understand our own definition of family and our role in it?* **Prerequisite:** Humanities 2 ***Course Credit:** Arts **or** English
The following are required components of this course that are beyond school-based classes:

- **LATE DISMISSALS:** Some field trips may require late dismissal from school.

Stories of San Francisco
Using local literature as a vehicle for exploration into San Francisco's diverse communities, students in this course compose fictional short stories that construct creative counter-narratives to develop a more complex understanding of the human experience in San Francisco. Students scrutinize nuances of narrative writing, participate in workshops and discussions, and read a variety of historical fiction and nonfiction texts. We will embark on field trips into each of the 5 main neighborhoods covered in this class, and eat the food (and drink the boba!), hear the music, see the art, etc. to immerse ourselves in the neighborhoods. From Chinatown to the Mission District, from Haight-Ashbury to the Castro, students explore the places they are reading about, as they read them, in order to literally walk in the shoes of a story's characters. Likewise, the stories students share for Exhibition will immerse their audience in the city setting by capturing the spirit and ethos of their assigned neighborhood community. Essential questions include: *What impact does the setting of San Francisco have on local writers' narrative storytelling? How can we learn to contribute to this genre and encourage our readers to think critically about the city they study or live in?*
Prerequisite: Humanities 2

Subject Area: Religion and Philosophy

Buddhism
The essence of Buddhism is to awaken, to life as it is, and to embrace and transform our suffering. Buddhism has a long and rich history from ancient India to the Bay Area. Students study how we can use the teachings of the Buddha to improve our own lives in the modern day. This class is experiential; it offers teachings and skills that give students a chance to change the way they perceive themselves and their world—to see more clearly and be more authentic. Topics of study include the life of the Buddha and branches of modern Buddhism, The Four Noble Truths, The Eightfold Path, The Buddhist code of ethics, and the profound teaching of Dependent Origination. To understand these concepts, students spend time developing a personal meditation practice, reading primary sources and practitioners' perspectives, visiting local Buddhist communities to hear from practitioners, and applying their understanding and knowledge to academics, personal experiences, and the everyday world. **Prerequisite:** Humanities 2

Subject Area: Science

Applied Chemistry: Better Cooking Through Chemistry
Do you want to think like a chef? This course investigates how we can use chemistry to answer this question. Students will step into a laboratory-kitchen to analyze the science that fundamental cooking techniques are based upon. Students will draw extensively on material from Chemistry 1 and Biology 1 as we explore the scientific principles underpinning a variety of dishes, including thermal energy transfer in browning reactions, the intermolecular forces involved in the creation of emulsions, the chemical reactions underlying bread, cheese, eggs, desserts, and pickles, the role of thermodynamics and solubility in preparing candies, and more! Students will also have the opportunity to design and execute dishes of their own choosing. As a result of taking this course, students' perception of cooking shifts: they become able to critically question, improve, and analyze recipes, rather than merely follow them. **Prerequisites:** Conceptual Physics 1, Chemistry 1; Biology 1ab or Biology 2a
The following are required components of this course that are beyond school-based classes:

- **FOOD HANDLING:** Students must be comfortable using their hands to work with gluten, eggs, dairy, and items manufactured in facilities that also process nuts (in addition to equipment exposed to the prior listed ingredients), as well as sharp knives.

Astronomy: Observatory
This course introduces students to the fundamentals of observational astronomy and astrophysics. Students will explore celestial bodies, the night sky, and key concepts such as spectroscopy and radiation. They will then develop a research question to guide a data-driven project, applying their knowledge and scientific method skills to uncover insights about the universe. Topics covered include exoplanet observation, eclipsing binaries, globular clusters, and more. Additionally, students will spend 2-4 nights at the Tuolumne Skies Observatory, where they will experience the life of an astronomer—working at night and resting during the day. They will gain hands-on experience with telescope operations, astronomical data collection, image processing techniques, and data management. For the exhibition, students will create a large-scale poster showcasing their research, with recent examples including light curves, scientifically interesting objects, or polished astronomical images. **Prerequisites:** Conceptual Physics 1, Chemistry 1
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will ideally include one required multi-day overnight trip. Although we try to avoid it, the trip may fall over a weekend.
- **FLEXIBLE SCHEDULE:** Due to weather being uncontrollable and difficult to predict, last-minute schedule flexibility may be required.
- **LIFE SKILLS:** On the overnight, students will be sharing a house and will be responsible for cooking and cleaning.

Marine Biology: San Francisco Bay and The Pacific Ocean
In this course, students will learn about the structure of the ecosystems and the organisms that reside in the Bay Area Estuary, including the bay (North and South), the ocean (from Marin to Monterey Bay), and several other meaningful ecosystems. Along with this survey of the area's biodiversity, we will study the multitude of processes that support this life, from the oceans to the intertidal to the deep sea. Researching the smallest to the largest organisms, students will investigate life cycles and evolutionary connections among different phyla of marine organisms, including cultural impacts from humankind. Special topics incorporated into the course include impacts of climate change and other relevant current issues. As a biology course, students are required to acquire new vocabulary and an understanding of life and ecological processes. Lab and fieldwork are integral parts of the course, including extensive fieldwork and direct observation. Class time is driven by small group discussions of readings and hands-on experiences. Students are assessed by participation, tests, collaborative projects, presentations, and a final independent project. **Prerequisites**: Conceptual Physics 1, Chemistry 1, Biology 1a
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will include at least one or more required multi-day overnight trips. These trips may fall over a weekend.
- **PHYSICAL ACTIVITY:** This course requires hiking and significant time outdoors, along with time spent on the water, possibly kayaking or on a similar type of vessel.
- **LATE DISMISSALS:** Some field trips may require late dismissal from school.

Subject Area: Social Studies

Art History: Museum Studies
Artists take a diversity of approaches to interpreting our world – from the super-realistic to the expressively abstract – from the politically charged to the evocation of overwhelming beauty. What kind of art are you drawn to? This course uses the rich collections of the art museums of San Francisco as its learning lab. These museums chart the evolution of Modern Art from the seedbeds of Realism into the nurseries of Spiritual Expressionism and Formal Abstraction, eventually leading into the exciting diversity of approaches in Contemporary Art. You will develop an understanding of the strategies of modern painters, sculptors, photographers, and architects – and you will dig deep into a contemporary art movement of your own choosing. Most importantly, you will make art that mimics the strategies of contemporary artists, giving your own spin to the artistic ideas.. By putting yourself into another artist's shoes and mimicking their artistic practices, you will invigorate your understanding of this revolutionary period in art history. In the end, you will see how Contemporary artists interpret the world—its politics, its beauties, its tragedies—and you will develop your own personal language for inventing a creative universe. **No prerequisite. Course Credit:** Arts **or** Social studies

Poverty and Justice
San Francisco has the highest wealth inequality in the nation and we will investigate why. Author and activist Bryan Stevenson says "the opposite of poverty is justice." We will imagine together what justice would look like in our city. This course will also examine the racial wealth gap, homelessness (or houselessness), substance use, and intersectionality. *Why are some people wealthy while others are homeless? What can be done to solve the homelessness crisis?* Students will investigate the causes and consequences of wealth inequality. Focusing on homelessness (or houselessness) in the Bay Area as a case study, students will become more familiar with the economic and social structures that exacerbate an increasingly dramatic gap between rich and poor, while reflecting on their own relationship to economic class. Students will spend several days engaged in solidarity service learning in the Tenderloin neighborhood, and have opportunities to meet and learn from a broad range of experts. Course activities include service work, emotional literacy training, problem-based inquiry, restorative justice circles, reading, writing, and discussion. **Prerequisite:** Humanities 2
The following are required components of this course that are beyond school-based classes.

- **SERVICE LEARNING:** Students should be prepared to spend approximately six school days at a service learning site (there are no overnights).
- **LATE DISMISSALS:** Field trips to the service learning site may include late dismissals and dismissals from the site.

Subject Area: Interdisciplinary

Construction Techniques
Construction Techniques is an overview of the construction trades, with integrated mathematical content. Students will use conventional measurements techniques, safely use hand and power tools, understand the necessary calculations and characteristics of typical building materials, learn basic carpentry and framing, and be introduced to electrical wiring and plumbing. Students will demonstrate responsibility for personal, occupational safety on the job site. They will learn about basic blueprints and plan reading, as well as construction careers and the role of unions in the construction industry. Coursework will be research and project-based, developing teamwork and project management skills. The culminating project will be a house design project: scale modeling, sketches, rough blueprints, materials lists and pricing, personnel needed, and in-class presentation. **No prerequisite. Course Credit:** Interdisciplinary UC "g" college-prep elective

Cybersecurity and Ethical Hacking
How do we protect our data, our systems, and ourselves in a world where danger is only a click away? This course will cover: cybersecurity fundamentals, security awareness essentials, defensive security, offensive security, hacking tools and techniques, careers in cybersecurity, and the hacker ethos, ethics, and law. Students will be assessed on completing hacking puzzles, competing in wargames, and preparing write-ups on their work. At the end of the course, students put their new skills to the test in a series of individual and team capture-the-flag challenges. **No prerequisite. Course Credit:** Interdisciplinary UC "g" college-prep elective

Wilderness First Responder
In this course, students will learn the techniques of wilderness medicine to help patients in a remote setting until EMS can arrive. After successful completion of the course, students will be certified as a Wilderness First Responder (WFR), the industry standard certification for professional guides, trip leaders, and search and rescue team members. This course will feature hands-on practice and role-playing scenarios, including one evening mock-rescue event in a local wilderness setting. The curriculum for this course is determined by NOLS, the National Outdoor Leadership School and the certification is valid for two years and can then be renewed with a shorter course. **No prerequisite. Course Credit:** Interdisciplinary UC "g" college-prep elective
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course may include overnight camping trips.
- **LATE DISMISSALS:** Some field trips may require late dismissal from school.
- **PHYSICAL ACTIVITY:** This course will require hiking and significant time outdoors.

Immersive 2 (May): 9th-Grade Core (English) Immersive Menu

Secrets of the City: Exploring San Francisco's Hidden Histories
In this three week adventure, students will dive deep into San Francisco's neighborhoods and histories, honing research skills and developing a stronger connection to their community. Students will explore classic tourist spots alongside lesser-known gems, uncovering untold stories and surprising details about the city. Using maps, demographic data, and field observations, they'll compare neighborhoods, discover unique landmarks, and find threads connecting different areas. Along the way, students will propose a new monument, mural, or marker honoring an overlooked part of San Francisco's history. The course will culminate in a digital magazine showcasing the artifacts, insights, and experiences gathered. **Prerequisite:** Humanities 1B

Sights, Sounds, and Flavors: Exploring the Soul of San Francisco Bay Area
In this three-week exploratory journey, we'll dive into how the Bay Area's unique flavors, artistic expressions, and musical traditions have been shaped by its rich history and diverse communities. As we explore the "Sights, Sounds, and Flavors" of San Francisco, we'll hone our research skills and deepen our understanding of the culture around us. Field trips will take us to tastings in restaurants and local farmers' markets to live music in the park and the iconic murals of the Mission, immersing us in the city's cultural essence. We'll engage with diverse sources, including *The Omnivore's Dilemma*, essays from *Mission Muralismo*, and local articles on the "hyphy hip-hop" movement. Along the way, students will create their own music, art, or food piece representing the city's culture. The immersive will culminate in a digital magazine showcasing the artifacts, knowledge, and experiences we've gathered, supported by an annotated bibliography. By the end, students will have a deeper appreciation for how food, art, and music tell the evolving story of San Francisco.
Prerequisite: Humanities 1B

Summer of Love: The Rebels, Dreamers, and Change-Makers of 1967
"If you're going to San Francisco / Be sure to wear flowers in your hair… All across the nation such a strange vibration / people in motion / There's a whole generation with a new explanation." Scott McKenzie's iconic song, *San Francisco,* called young people, hippies, artists, activists, and people from other counter-cultural groups to converge in San Francisco in what became known as The Summer of Love. This historic moment symbolized the shifting cultural fabric of our country and brought as many as 100,000 people to San Francisco with the hopes of challenging socio-political norms and envisioning change. This course will explore art, music, politics, writing, and community dynamics to understand this moment's impact on Bay Area culture. Students will develop research skills to examine subtopics of their choosing, such as women's rights, fashion, youth activism, and spirituality, that will help our class understand the many diverse elements of this moment. This research will culminate in a digital magazine showcasing all of the artifacts, knowledge, and experiences students have gained over the course. **Prerequisite:** Humanities 1B

Immersive 2 (May): 10th- and 11th-Grade Course Offerings by Department

Subject Area: Arts

Filmmaking
In this course, students learn the art of filmmaking. Students go through the stages of pre-production, production, and post-production. As part of the course, students will spend up to a week on location learning how to shoot from a script. During this time, actors will gain first-hand experience on a set and in front of a camera, while crew members will learn what it takes to be part of a film team. After the shoot, students will return to school to edit the footage into a cohesive film. The course will culminate with a screening of the finished product at the Walt Disney Family Museum or a similar theater. Students will explore the role of the three act structure in telling stories in film, why film is the best medium for telling certain stories, the various aspects of the filmmaking process, how style, mood, and emotion can be conveyed through film, and who the intended audience of a film is. **No prerequisite.**
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will likely include one or more required multi-day overnight trips.
- **LIFE SKILLS:** On the overnight, students will be sharing a house and will be responsible for cooking and cleaning.

Building Beautiful Bamboo Bicycles at Bay: The Art and Science of Bicycle Fabrication
In this interdisciplinary Mathematics and Design course, students will learn the basics of bicycle frame design. We will begin by analyzing the design characteristics of various types of bicycles, taking precise measurements of dimensions in order to understand how they affect how different bicycles feel to ride. We will examine design choices such as material, tube lengths, angles, diameters, and gear ratios. How does the choice of one angle on a frame affect the rest of the angles? How is trigonometry applied to these real-world problems? Through Bay Area local field trips, we will investigate historical and current techniques in bicycle frame design and building. Using what they've learned, students will then create bicycle designs using specialized CAD software, and generate engineering drawings detailing the aspects of these designs. This course will culminate in a group project: students will learn to use the tools available in the project center to translate their designs into reality by fabricating frames out of bamboo to create rideable bicycles. Other mathematical investigations will include gearing, mechanical advantage, and aerodynamics. **Prerequisite:** Math 2
Course Credit: Arts **or** Math

Subject Area: English

Civil Rights in the American South
This course is a historical and socio-cultural analysis of some of the significant people, places, and events of America's Civil Rights Movement. At the center of this course is the notion that "place" is vital to understanding. Therefore, we will teach the course largely in the American South, learning from the historical sites that generated and propelled the Civil Rights Movement in the 1950s and 1960s. This course will provide a foundation for the academic study of the Civil Rights Movement, with a particular focus on the historical and contemporary implications of the movement within the context of social justice and community-building. Students will be able to contextualize other social movements of the 20th century and recognize the importance of those movements in today's society. This course will employ various learning/teaching methodologies, including immersion, close reading, visual analysis, presentation, critical thinking, and writing. **Prerequisite**: Humanities 2. *This course meets Bay's Ethnic Studies designation.* ***Course Credit:** Social Studies **or** English**.** *This course meets Bay's Ethnic Studies designation.*
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will likely include one or more required multi-day overnight trips. These trips may fall over a weekend.

LIFE SKILLS: On the overnight, students may be sharing responsibility for cooking and cleaning.

The Writer's Life: A Creative Exploration
This course focuses on deep dives into writing: students who love to write will spend their time reading works by a range of authors, learning specific tools to give their writing stylistic flourish, taking each piece through multiple drafts, participating in whole-class and small-group workshops, visiting local bookstores and writing spaces to gain inspiration, and developing polished pieces that are ready for publication. Essential questions guiding this course include: *When writing in a new genre, what are the important questions to ask as you approach each task? How does one think about and balance style and content in writing? What do real writers compose, and how might we learn about and produce work in those genres as well?* **Prerequisite:** Humanities 2

Subject Area: Math

Building Beautiful Bamboo Bicycles at Bay

The Art and Science of Bicycle Fabrication In this interdisciplinary Mathematics and Design course, students will learn the basics of bicycle frame design. We will begin by analyzing the design characteristics of various types of bicycles, taking precise measurements of dimensions in order to understand how they affect how different bicycles feel to ride. We will examine design choices such as material, tube lengths, angles, diameters, and gear ratios. How does the choice of one angle on a frame affect the rest of the angles? How is trigonometry applied to these real-world problems? Through Bay Area local field trips, we will investigate historical and current techniques in bicycle frame design and building. Using what they've learned, students will then create bicycle designs using specialized CAD software, and generate engineering drawings detailing the aspects of these designs. This course will culminate in a group project: students will learn to use the tools available in the project center to translate their designs into reality by fabricating frames out of bamboo to create rideable bicycles. Other mathematical investigations will include gearing, mechanical advantage, and aerodynamics. **Prerequisite Math 2 Prerequisite:** Math 2 **Course Credit:** Arts **or** Math

Subject Area: Science

Atmospheric Science and Engineering: Launching Near-Space Weather Balloons
This course studies the atmosphere by releasing high altitude weather balloons to the edge of space. Students make predictions about measurable characteristics of the atmosphere, then put together the hardware and software that will test their hypotheses when the weather balloons are launched into the stratosphere. Launching and retrieving the balloon payloads is a day-long endeavor, both rewarding and frustrating. Before launches, students will gain experience in engaging with group efforts, preparing and executing a single-opportunity experiment, and mitigating unforeseen complications in the field. Essential questions guiding our course include: *How can we study (and refine our study) of the atmosphere? How do weather balloons work? What things can we study in the atmosphere? How can we study them?* **Prerequisites:** Conceptual Physics 1, Chemistry 1
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course may include a single overnight on campus with a duration of one evening, followed by a full day field trip.
- **FLEXIBLE SCHEDULE:** Due to weather being difficult to predict, last-minute schedule flexibility may be required.

Biotechnology
What is it like to work in a biotechnology research laboratory? How can the skills that students learn in Bay's core science courses be applied to the "real world" of scientific research in a rigorous lab-based setting? Students in this course undertake a deep investigation into molecular biology and into the professional skills required to work in this technical field. On Day 1, students enter one of Bay's science labs to find the classroom space transformed. Lab benches are set up with pipettes, table-top centrifuges, PCR thermocyclers, incubators, shaking baths, electrophoresis apparatuses, light tables, pH meters, and so on; the lab equipment also includes a UV-spectrophotometer, an autoclave, and perhaps a laminar flow hood. Welcome to the Bay Biotechnology Laboratory! Students then follow a brisk training schedule in a research laboratory environment, beginning a series of preliminary projects to test and extend their laboratory skills. Students will perform DNA extractions, PCR, culture living cells, and perform enzymatic assays to explore a variety of topics. Possible subject matter includes characterizing the interactions of gut microbes with roundworms, assessing the efficacy of biofuel-generating enzymes in the context of global efforts to reduce fossil fuel consumption, and cloning and analyzing the gene GAPC to characterize the metabolic enzyme glyceraldehyde 3-phosphate dehydrogenase from a plant chosen by students (among other possible topics). There are several opportunities for students to present their work to others. This is primarily a hands-on, minds-on experience that will prepare students for college-level and career-level laboratory procedures. **Prerequisites:** Chemistry 1; Biology 1 or Biology 2 (Biology 2 students will be prioritized)

California Geology: A Field Experience
In this field geology course, students explore the forces that create the grand features of California: the Cascade range, the Sierras, the Central Valley, the San Andreas Fault, the Coastal Ranges, and the Salton Sea. Through this course, students build an integrated, live understanding of the regions that make up this state, the formations they are made of, and how these formations interact with one another. Assessments will include regular quizzes, a comprehensive field trip guide, and a visual representation of the California underground. Essential questions framing our study include: How do geological regions relate to one another? How far can a rock formation extend? What are the sources of volcanism in the state of California? Why is there so much gold in the Sierras? Where is it safe to live in California? **Prerequisites:** Conceptual Physics 1, Chemistry 1
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will include one or more multi-day overnight trips.
- **CAMPING:** At most points on the trip, students will be camping and sleeping in tents.
- **PHYSICAL ACTIVITY:** This course will require hiking and significant time outdoors.
- **LIFE SKILLS:** On the overnight, students will be sharing responsibility for cooking, cleaning and laundry.

Fire Ecology
Fire Ecology will cover the role of fire in fire-adapted western U.S. forests at the scales of individual trees, communities, and ecosystems. Students will learn the essentials of different fire regimes and associated fire behavior across California through field trips, lab exercises, and student-led projects. The class will also critically examine current management practices to reduce the negative effects of fires on communities and ecosystems. Students will discuss climate feedback loops that are changing fire patterns and the implications of these on forests and communities across the West. On an overnight field trip, we will visit both historic and recent burn areas, learning field methods to reconstruct fire history and visualize succession patterns in forests. **Prerequisites:** Conceptual Physics 1, Chemistry 1
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will include one or more multi-day overnight trips.
- **CAMPING:** At some points on the trip, students will be camping and sleeping in tents.
- **PHYSICAL ACTIVITY:** This course will require hiking and significant time outdoors.
- **LIFE SKILLS:** On the overnight, students will be sharing responsibility for cooking, cleaning and laundry

Geologic, Environmental, and Human History of the California Gold Rush
This interdisciplinary course delves into the multifaceted history and impact of the California Gold Rush, blending elements of geology, environmental science, and humanities. Students will explore the geological processes that led to the formation of gold deposits, examine the environmental consequences of the Gold Rush, and analyze the profound human and societal changes that occurred during this transformative period in California's history. This course aims to provide students with a holistic understanding of the California Gold Rush, encouraging critical thinking, interdisciplinary connections, and a deeper appreciation for the complexities of historical events and their enduring impacts on society and the environment. **Prerequisites:** Chemistry 1, Humanities 2.
*__Course Credit:__ Science **or** Social Studies. *This course meets Bay's Ethnic Studies designation.*
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will include one or more multi-day overnight trips.
- **CAMPING:** At some points on the trip, students will be camping and sleeping in tents.
- **PHYSICAL ACTIVITY:** This course will require hiking and some time outdoors.
- **LIFE SKILLS:** On the overnight, students will be sharing responsibility for cooking, cleaning and laundry.

Water in the American West: The Eastern Sierra Nevada

Whose water is it? This essential question drives this project-based, interdisciplinary course. We use the tools of science and humanities to investigate the myriad ways humans rely on water, the political, economic, and ethical issues stemming from our basic need for water, and how our quest for this critical resource has led us to re-engineer natural ecosystems. Looking through a scientific lens, we examine the natural features and processes that determine the extreme variability of water availability in the western United States and consider how human use of water resources impacts biodiversity and ecosystem functions. Drawing on the humanities, we consider the historical and contemporary politics of water access, the ways western settlement shaped current water policy, and the changes in policy and values required for sustainable water use in the future. This course will address the question above through an in-depth exploration of a particular region of the American West, the Eastern Sierra Nevada region of California. Our headquarters throughout most of this course will be the Sierra Nevada Aquatic Research Lab (SNARL), located several miles east of Mammoth Lakes, CA. SNARL is an active research laboratory run by the University of California Natural Reserve System, and is relatively close to unique and iconic features in the story of western water, such as Mono Lake, Owens Lake, and Hetch Hetchy Reservoir. Students enrolling in this course should expect daily field trips, active participation in research and restoration projects, nightly discussions, presentations, and quizzes. In addition, time will be devoted most days to completing small group projects and reading assignments. We will be staying for two weeks in the dorm facilities at SNARL, and doing our own shopping and cooking. **Prerequisites:** Humanities 2, Conceptual Physics 1, Chemistry 1. ***Course Credit:** Science **or** Social Studies

The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will include a multi-day overnight trip.
- **LIFE SKILLS:** On the overnight, students will share responsibility for cooking and cleaning.

Subject Area: Social Studies

Civil Rights in the American South
This course is a historical and socio-cultural analysis of some of the significant people, places, and events of America's Civil Rights Movement. At the center of this course is the notion that "place" is vital to understanding. Therefore, we will teach the course largely in the American South, learning from the historical sites that generated and propelled the Civil Rights Movement in the 1950s and 1960s. This course will provide a foundation for the academic study of the Civil Rights Movement, with a particular focus on the historical and contemporary implications of the movement within the context of social justice and community-building. Students will be able to contextualize other social movements of the 20th century and recognize the importance of those movements in today's society. This course will employ various learning/teaching methodologies, including immersion, close reading, visual analysis, presentation, critical thinking, and writing. **Prerequisite**: Humanities 2. *This course meets Bay's Ethnic Studies designation.* ***Course Credit:** Social Studies **or** English**.** *This course meets Bay's Ethnic Studies designation.*
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will likely include one or more required multi-day overnight trips. These trips may fall over a weekend.
- **LIFE SKILLS:** On the overnight, students may be sharing responsibility for cooking and cleaning.

The Geologic, Environmental, and Human History of the California Gold Rush
This interdisciplinary course delves into the multifaceted history and impact of the California Gold Rush, blending elements of geology, environmental science, and humanities. Students will explore the geological processes that led to the formation of gold deposits, examine the environmental consequences of the Gold Rush, and analyze the profound human and societal changes that occurred during this transformative period in California's history. This course aims to provide students with a holistic understanding of the California Gold Rush, encouraging critical thinking, interdisciplinary connections, and a deeper appreciation for the complexities of historical events and their enduring impacts on society and the environment. **Prerequisites:** Chemistry 1, Humanities 2.
***Course Credit:** Science **or** Social Studies. *This course meets Bay's Ethnic Studies designation.*
The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will include one or more multi-day overnight trips.
- **CAMPING:** At some points on the trip, students will be camping and sleeping in tents.
- **PHYSICAL ACTIVITY:** This course will require hiking and some time outdoors.
- **LIFE SKILLS:** On the overnight, students will be sharing responsibility for cooking, cleaning and laundry.

Water in the American West: The Eastern Sierra Nevada
Whose water is it? This essential question drives this project-based, interdisciplinary course. We use the tools of science and humanities to investigate the myriad ways humans rely on water, the political, economic, and ethical issues stemming from our basic need for water, and how our quest for this critical resource has led us to re-engineer natural ecosystems. Looking through a scientific lens, we examine the natural features and processes that determine the extreme variability of water availability in the western United States and consider how human use of water resources impacts biodiversity and ecosystem functions. Drawing on the humanities, we consider the historical and contemporary politics of water access, the ways western settlement shaped current water policy, and the changes in policy and values required for sustainable water use in the future. This course will address the question above through an in-depth exploration of a particular region of the American West, the Eastern Sierra Nevada region of California. Our headquarters throughout most of this

course will be the Sierra Nevada Aquatic Research Lab (SNARL), located several miles east of Mammoth Lakes, CA. SNARL is an active research laboratory run by the University of California Natural Reserve System, and is relatively close to unique and iconic features in the story of western water, such as Mono Lake, Owens Lake, and Hetch Hetchy Reservoir. Students enrolling in this course should expect daily field trips, active participation in research and restoration projects, nightly discussions, presentations, and quizzes. In addition, time will be devoted most days to completing small group projects and reading assignments. We will be staying for two weeks in the dorm facilities at SNARL, and doing our own shopping and cooking. **Prerequisites:** Humanities 2, Conceptual Physics 1, Chemistry 1. ***Course Credit:** Science **or** Social Studies

The following are required components of this course that are beyond school-based classes:

- **OVERNIGHTS:** This course will include a multi-day overnight trip.
- **LIFE SKILLS:** On the overnight, students will share responsibility for cooking and cleaning.

Subject Area: World Languages

Spanish Language & Community Engagement, History, and Culture in Guatemala
In this course, students will be immersed in Guatemala's language and culture. Students will prepare for and then travel to Guatemala to work with two non-profit organizations, Mil Milagros and Viviendas León, who collaborate to empower women as independent food producers and income earners to enhance local community development while helping students continue their language learning. This immersive experience seamlessly blends language learning, cultural immersion, and impactful community engagement. Students will reside with local families in the Mayan Highlands, 3 hours from Guatemala City in the Lake Atitlán region, exploring and immersing in Guatemalan daily life. Mornings bring hands-on participation in community projects, supported by Viviendas León and Mil Milagros, contributing to holistic development in Mayan communities like Los Planes, in the municipality of Santa Maria Utatlan, Sololá. Afternoons are dedicated to immersive language classes, fostering Spanish proficiency. **Prerequisites**: Students enrolled in Spanish 4 or Spanish for Spanish Speakers 2 in 2025-26 will be prioritized. Some students who will be enrolled in Spanish 3 will be considered. **Course Credit:** World Languages. *This course meets Bay's Ethnic Studies designation.*

The following are required components of this course that are beyond school-based classes: Please note that the homestay family may not be able to accommodate all potential dietary restrictions. To ensure a global perspective, students are required to be brave, comfortable with the uncomfortable, and capable of fully diving into the new culture. Students must have an up-to-date passport and recommended vaccinations from their medical provider.

Semester Course Offerings by Department

Note: With the exception of the core courses, many elective courses are offered on a rotating basis. There is no guarantee that these same elective courses will be offered in next year's course catalog.

ARTS
Advanced Design
Advanced Drama: Directing & Script Analysis (Honors)
Advanced Drawing & Painting Studio (Honors)
Advanced Projects in Digital Arts (Honors)
Advanced Vocal Music
Artist as Activist*
The Creative Process
Design 1A
Design 1B
Drama 1A
Drama 1B
Drawing 1A
Drawing 1B
Jazz 1A
Jazz 1B
Jazz 2 (Honors)
Music Production 1A
Music Production 1B
Painting 1A
Painting 1B
Photography 1A
Photography 1B
Video Production 1A
Video Production 1B
Vocal Music 1A
Vocal Music 1B
Yearbook

HUMANITIES
American Studies
Civics
Humanities 1
Humanities 2

ENGLISH
American Rage
Asian American Literature ➢
Banned Books (Honors)
Breaking the Singular Story (Honors) ➢
British Literature (Honors)
Craft of Writing
Essay and Memoir (Honors)
Indigenous American Literature ➢
The Good Life*

MATH
Math 1
Math 2
Math 3
Analysis of Functions
Calculus (Honors)
Computer Science 1
Computer Science 2
Group Theory (Honors)
Linear Algebra (Honors)
Statistics
Topology (Honors)
Using Data Science to Explore Social Issues

RELIGION and PHILOSOPHY
Comparative Philosophy (Honors)
Comparative Religion (Honors)
Ethics and Ethical Decision Making
The Good Life*

Continued on next page

* Cross-listed course. These courses can be used for credit in **either** of the two departments they are listed in, but **not both**. Courses cannot be double-counted for credit.
❖ Carries the "World History" designation
➢ Carries the "Ethnic Studies" designation

Semester Course Offerings by Department

SCIENCE
Astronomical Research Seminar
Biology 1
Biology 2 (Honors)
Chemistry 1
Chemistry 2 (Honors)
Conceptual Physics 1
Earthquakes and Volcanoes
Evolutionary Biology
Human Genetics & Disease
Human Physiology (Honors)
Physics 2 (Honors)
Power Generation: Transitioning from Fossil Fuels to Renewable Energy
Quantum Mechanics (Honors)
Sustainability and Earth Systems

SENIOR PROJECTS
Senior Projects
- Makers' Section
- Junior Option

SOCIAL STUDIES
African Studies ➢
Artist as Activist*
Ethical Economics
Ethnic Studies: Race, Class, and Gender ➢
Human Geography (Honors)
Queer History ➢
U.S. Foreign Policy (Honors)

WORLD LANGUAGES
Mandarin 1
Mandarin 2
Mandarin 3
Mandarin 4
Mandarin 5 (Honors)
Advanced Topics in Mandarin (Honors)

Spanish 1
Spanish 2
Spanish 3
Spanish 4
Adv Topics in Spanish: Literature & Culture A/B (Honors)

Spanish for Spanish Speakers 1
Spanish for Spanish Speakers 2
Spanish for Spanish Speakers 3 (Honors)

* Cross-listed course. These courses can be used for credit in **either** of the two departments they are listed in, but **not both**. Courses cannot be double-counted for credit.
❖ Carries the "World History" designation
➢ Carries the "Ethnic Studies" designation

Subject Area: Arts

All courses in this section are one term in duration.

Advanced Design
Are you curious about how things work? In this course, students embark on a comprehensive exploration of advanced design. Rooted in "design thinking" methodology, students tackle assigned and self-devised projects using basic drawing and schematic creation. Students explore multiple projects in order to deepen their understanding of how mechanisms work, as well as concept generation, product architecture, and industrial design. Using a variety of media, students use the resources of our fabrication lab, CAD software, and 3D modeling to construct prototypes.
Prerequisite: Design 1B

Advanced Drama: Directing and Script Analysis (Honors)
Building on students' experience from Drama 1, the focus of this course is advanced scene-work and character preparation. We operate like a theater company, with students taking turns directing and designing for one another. As a class, we will read plays from 20th and 21st century playwrights and then lift the text from the page to the stage for each one. By doing so, and playing a range of roles in the ensemble and in the plays, students become well-versed in analyzing text for performance and become resourceful, reliable collaborators, picking up some theater history along the way. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Drama 1B

Advanced Drawing and Painting Studio (Honors)
This studio course provides students with the opportunity to broaden their art making experience at an independent level. Being encouraged to paint or draw in a series, mix media, work with innovative paint application, and consider working with collage and assemblage, students will further extend the possibilities of what painting and drawing can be. The course offers exposure to the art world through multiple field trips to local contemporary art galleries, readings, visits to museum collections, and local artist talks and critiques. As a culmination of the course, each student curates and installs an exhibition of their work. Taking this course provides time for students to expand on visual themes of their choice, learn how to document/photograph work, create a portfolio and sketchbook archive, and develop an artist statement that genuinely illustrates who they are as visual thinkers and makers. This course has a required figure-drawing component featuring nude adult models; these sessions will extend through lunch or tutorial one afternoon per week. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Drawing 1B **or** Painting 1B
***Note: Students may retake this course for credit with the permission of the Dean of Academics and Innovation.**

Advanced Projects in Digital Arts (Honors)
This course looks closely at the creative intersection of art and technology. In doing so, students develop projects that use, critique, and expand the notion and boundaries of digital art. Media in the class range from photos, motion graphics, and animation, to AI, video, and music. This is an opportunity to learn new processes and deepen existing skills. Students present and discuss a number of projects that either respond to ideas that arise in class or that develop ideas already in circulation in an individual's art practice. Students hone organizational skills in order to keep up with a thorough and progressive production schedule. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Photography 1B **or** Video Production 1B **or** Music Production1B

Advanced Vocal Music
This advanced-level vocal course continues the focused study of voice production, technique, and musicianship, building on the foundational skills developed in Vocal Music 1A & 1B. Students will engage with a more challenging song repertoire, exploring a wide range of genres and styles while honing their ability to expressively interpret and perform complex pieces. The course places a stronger emphasis on advanced vocal techniques, harmonization, and musicianship skills, including sight-reading and ear training. Performance remains a central component of the course with students regularly presenting songs in class and performing at school events. This course is designed for students ready to deepen their understanding of vocal performance and further their confidence as singers. **Prerequisite:** Vocal 1B or permission from the instructor

Artist as Activist
Can art change the world? History and current examples show that it can, and that the effects are profound. This integrated course combines political, social and art history with hands-on studio art experiences to explore the ways in which the arts are a tool for social change. The course is team-taught by two teachers, one with expertise in art and one with a background in social studies and history. Students will research historical and contemporary social movements and produce original artwork reacting to a range of issues. Topics may include: labor and class; civil rights and racial equality; feminism and gender; the environment; youth movements and culture; war and violence. Artists may use written or spoken words, posters, painting, photography, and performance. The course is project-based; students build skills and content knowledge through authentic, flexible, student-directed projects. **Prerequisite:** Humanities 2. ***Course Credit:** Arts **or** Social Studies

The Creative Process
Where do ideas come from? How do I develop those ideas into successful end results? How can my contributions to Bay and beyond be meaningful? In the interest of instilling skills which will serve students during their time at Bay and beyond, this 9th-grade core course focuses on building creative and artful thinking, then putting it into action. Through projects which focus on design thinking, experimentation, and collaboration, students examine how the creative process works, both collectively and individually. **No prerequisite.**

Design 1A
Every human-made object we interact with on a daily basis from phones to cars to furniture to buildings has been intentionally designed by a person or a team. *What are the steps and considerations that comprise good design? How can a thoughtful and intentional design process shape and improve the experience for people who use that product or that place?* This course introduces students to the world of graphic design, product design, and environment design. Using "design thinking" as a methodology, students will design and produce a series of projects that will challenge them to solve specific goals. Students will produce deliverables that are functional, aesthetically pleasing, and as a result will elevate the experience of the user, audience, or consumer. Students will learn technical drawing skills, 3D rendering, basic construction and fabrication of product models, prototyping tools, graphic design software, and much more. **No prerequisite.**

Design 1B
This course builds on the skills of Design 1A as students more deeply investigate the design and production process through hands-on projects. *Why does a careful, methodical approach balanced with creative thinking help designers produce strong solutions?* As in Design 1A, students will be expected to design and fabricate working solutions but with a greater emphasis on basic engineering principles such as structural systems (how bridges work) to vehicle design (power and efficiency) and overall function. Through a series of projects, students will continue to develop their fabrication skills while simultaneously developing their design process and their project management skills. **Prerequisite:** Design 1A

Drama 1A
This course introduces students to the theater arts and guides students toward understanding how they can communicate authentically through theater performance. Students do not need any prior experience in theater to be successful in this course and, after completing the course, will feel increased comfort expressing themselves verbally and artistically. Day to day classwork includes exploring movement theories, vocal training, and studying improvisation as both a channel for creative energies and a forum for experimentation in character and scene development. Performances include developing and giving a morning meeting type talk and performing 2-3 monologues (one original). Informal class work is used to hone performance and presentation techniques. Students develop the skills necessary to critique and evaluate the success of performances by classmates, professionals, and themselves. **No prerequisite.**

Drama 1B
This course deepens students' knowledge of dramatic forms through reading and performing plays and scenework. The emphasis on authenticity in performance is stronger than in Drama 1A. Students begin to develop technical theater skills, including the fundamentals of directing, as they bring scenes from page to stage. Focus is on 20th century dramatic texts, considering how, why, and when theater is effective as a medium. The class reads two whole plays and students work with partners on scene study and at least two performances. Students continue study of movement, vocal training, and advanced improvisation technique in addition to scripted work. **Prerequisite:** Drama 1A

Drawing 1A
In this class, students are introduced to the tools and methods of drawing. Students hone their observational skills and learn about the dry media, such as graphite, charcoal, and ink. Through looking at how other artists have captured the world around them, and by exploring the many ways drawing materials can express form, emotion, and context, students develop their own approaches to depicting images on two-dimensional surfaces. Projects include self portraiture, detailed studies of natural objects, and observations of light and shadow on a still life. Students develop compositional understanding by applying the elements and principles of design to their sketches and drawings. Experimentation, critique, reflection, and a consistent practice are essential qualities of the artistic process; students build upon each project, uncovering their own personal aesthetic. **No prerequisite.**

Drawing 1B
In this class, students further explore their drawing techniques, and observational skills with an eye on developing their personal style. Mediums used vary from pencil to pen and ink, to charcoal and pastels. Students are challenged to make individual choices about mediums and surfaces in the realization of larger scale works. After each project, students engage in reflections and critiques to gain feedback and support. Students are encouraged to expand on their individual style and creative problem-solving skills. The class explores historical and contemporary artists to further enhance students' knowledge and variety of approach in creating works of art. Throughout the course, students also capture ideas and images in their sketchbooks with a range of materials.
Prerequisite: Drawing 1A

Jazz 1A
In this course, you get to play music. Traditional jazz instruments like guitar, bass, drums, keyboard, saxophone, trumpets are most welcome, but so are less common jazz instruments like flute, violin, cello, vibraphone, marimba, mandolin, ukulele, and there's even been a Japanese koto. Vocalists are welcome. You do not need to read sheet music; most jazz is played by ear. Much of jazz is made up on the spot, and you will learn how to improvise. When we are not playing music, we will be listening to music and talking about how music works. If you want, you can learn to write your own music and have the band perform your compositions. This is a beginning jazz class, so you're not required to perform for the student body; instead, performances are usually off campus. We will also have one evening field trip where we hear professional jazz musicians play at a real jazz club and meet the band afterward. **No prerequisite.**

Jazz 1B
This course is a thorough grounding in introductory jazz concepts. Students become familiar with a wide range of recordings and styles. Each Jazz 1B student receives two private lessons during class time with an instructor specializing in the student's instrument. Students will develop their sight-reading and ear training. Additionally, students participate in a field trip to a jazz club. Jazz 1B is an ensemble class; participation in a final performance is required. **Prerequisite:** Jazz 1A

Jazz 2 (Honors)
This is a performing ensemble class for students who are familiar with the basics of jazz improvisation and have completed the Jazz 1A/1B sequence. Students increase their repertoire of standards, hone their rhythmic and harmonic vocabulary, improve their performance skills, and develop their knowledge of jazz history. Students also hear live music at a jazz club at least once in the term. Participants in this course are expected to master a new tune and teach it to the ensemble during the course of the term. [This course is an Honors course; see Honors information for details.]
Prerequisite: Jazz 1B **or** permission from instructor ***Note: Students may retake this course for credit with the permission of the Dean of Academics and Innovation.**

Music Production 1A
Music Production 1A is an introductory course involving audio engineering and music production with digital audio workstation software, such as Logic, and a MIDI keyboard. The first major project for the course is a music autobiography, in which students practice and demonstrate proficiency in recording, editing, and mixing. Through the second project, students produce and mix one full song. Throughout the engineering and production process, students learn about the fundamentals of sound and the history/structure of various types of music genres. Finally, specifically in the production process, students learn about song arrangement, crafting a compelling rhythm section and memorable melody, chord progressions, and how to use effects to add texture to their songs. Upon completion of the course, the students' work is aired via our Bandcamp and SoundCloud page.
No prerequisite.

Music Production 1B
Music Production 1B involves the continuation of music production, recording, mixing, and editing with Logic software tools. Students produce two full-length songs in the course, as well as remix each other's songs. In addition to continuing to hone their production and mixing skills, students learn how to master songs, as well as optimize their studio and listening room setups. Upon completion of the course, the students' songs are released on two Bandcamp & Soundcloud albums. **Prerequisite:** Music Production 1A

Painting 1A
Students are introduced to a variety of skills starting first with black and white acrylic. Students then start mixing color to create newly invented hues, applying layers of paint to build complexity, and developing compositions using a variety of wet media. After gaining confidence through observing a still-life on paper and representing form, light, and shadow, students move onto other surfaces such as canvas and wood panels. Subjects for investigation run the gamut, from landscape to abstraction and self-portraiture to free-form expression. Developing the skill of constructive criticism runs through the course, taking the format of both group discussions as well as one-on-one written observations of the strengths and areas to improve in a fellow artist's paintings. The sketchbook practice is a large part of this class with work at home (often in watercolor) assigned.
No prerequisite.

Painting 1B
In this course, students expand their skills as painters and artists. A deep dive into Color Wheel Theory drives the goal of creating more complex compositional spaces. Working with gouache, watercolor, ink, and acrylic paint, students develop a portfolio that exhibits skills in observation, perspective, and visual interpretation. Students construct and stretch canvases and learn how to prepare and prime paper and wood panels. Students in this course are encouraged to work experimentally, moving in between realism and abstraction. The class looks at a range of historical and contemporary artists to examine individual development, style, technique, and problem-solving approaches. Throughout the class, students reflect on their work and the evolving work of their peers. Students also explore multimedia approaches to the 2D imagery, integrating printmaking and collage techniques into their painterly experiments. **Prerequisite:** Painting 1A

Photography 1A
Through a series of projects, students learn how to operate a digital camera, manipulate images using a variety of techniques and processes, and organize and output their work. An introduction to composition using the elements and principles of design helps students create images that are harmonious and unified. Assignments incorporate a variety of approaches and themes including straight photography, composite imaging, special effects, and time-lapse video production.
No prerequisite.

Photography 1B
Students continue their study of digital photography, learning how the mechanics of a digital SLR camera can creatively inform their work. Projects incorporate a series of approaches and themes, such as photojournalism, the essence of motion, portraiture, historic revisitation, and digital darkroom processing. The course themes present students with a wide range of subject possibilities to draw from in their projects and portfolios, culminating with an in-depth, independent study of one's own choosing. **Prerequisite:** Photography 1A

Video Production 1A
What tools are used by filmmakers to create memorable and meaningful stories? How does one go about planning to make a short movie? This course for the beginning video-maker is an introduction to the basics of camera mechanics, visual language, film grammar, and storytelling. Students learn the skills necessary to accomplish basic pre-production, production, and post-production processes. This is a chance to gain access to state-of-the-art software and hardware to create original work in a powerful visual language. **No prerequisite.**

Video Production 1B
This course is for the intermediate video-maker. It provides an in-depth opportunity to apply all phases of the video production process. Students build on skills in pre-production, production, and post-production processes introduced in Video 1A, this time with a focus on collaboration and crew roles. Students gain experience by taking on a variety of responsibilities including director, camera operator, lighting, sound, and production assistant. Advanced editing skills are introduced using Adobe After Effects, along with the rest of the Adobe Creative Suite.
Prerequisite: Video Production 1A

Vocal Music 1A
This course helps students achieve greater vocal independence, confidence, inner hearing, and quality tonal production. In this course, students study a variety of musical styles and work as an ensemble to perform and share music with friends, family, and the community. Students memorize their music and follow conductor cues. Through group exercises, individual practice, demonstrations, and warm-ups students become more comfortable in their vocal range, focusing on proper breathing, and blending pitch. Students learn the mechanics of proper voice control, including how body position and posture can improve their singing ability. Each student experiences a unique and positive atmosphere in which they learn to be a better performer. **No prerequisite.**

Vocal Music 1B
This course offers a more focused study of voice production, technique, and musicianship. In studying a song repertory that represents a variety of genres and musical styles, students get the chance to work in groups and individual vocal coachings, both in a safe and supportive environment. In addition to technique, students will learn how to sing expressively, as well as the important psychological aspects of singing, such as building vocal confidence and lessening vocal anxiety. Singers will regularly perform in class in front of their peers. Opportunities to perform for the larger community will be explored. **Prerequisite:** Vocal Music 1A

Yearbook: Students in Publication Arts use state-of-the-art design and publishing software to construct the Bay School yearbook. Tasked with producing the school yearbook, students will work in teams while learning about the various roles within the publishing industry and gaining skills in graphic design, copy editing, and print-based publication. Additionally, students will select a book theme, edit photos taken by others while learning about typography, color, and page layout. This course is project-based and builds skills in project management, creativity, critical thinking, and collaboration. Student mastery of the curriculum will yield industry standard skills in publication arts and leave a lasting impact within and beyond the Bay School campus community. **By design this course runs in the Spring semester. Prerequisite:** Photo 1A & Photo 1B

Subject Area: Humanities

American Studies A/B
A year-long (two-semester) required 11th-grade course, American Studies takes a multidisciplinary approach toward our country's history, culture, and ideals. The course is guided by the following essential questions: *Who is an American? What are American ideals? To what extent have they been upheld, ignored, or rejected? Who tells the American story and how? Where does your story fit? How have Americans' responses to these questions changed and remained the same over time?* Students explore a wide variety of primary and secondary sources including literature, art, music, and historical documents to explore the American experience. Through this work, students develop a layered understanding of the interplay between the cultural, political, and socio-economic forces that have shaped our country. Students also develop their abilities to synthesize and draw upon an array of sources; delve into specific moments of this nation's history through independent research and presentation of their findings; and speak thoughtfully about how the evolution of the United States has shaped their upbringing and worldviews. **Prerequisite:** Humanities 2

Civics
Civics is a required one-semester course for all 10th-graders. This project-based course will prepare students for civic engagement and political participation by helping students understand our political system and government's role in American life. The overarching goal is to build civic literacy and to foster civic engagement. The course will center on these essential questions: *What role should government play in our lives? What are your rights and responsibilities as citizens? How can you make informed decisions? How can you influence and take part in the political process?* The course builds a foundation of research and media literacy skills, while allowing students to identify and examine a topic of personal interest. Topics will invite exploration of our political system and process, and be as varied as students' passions—from the social to the scientific, from the economic to the environmental. Students will define a meaningful question, then use text-based and field-research techniques to gather information that they will ultimately share to present their findings. **Prerequisite:** Humanities 1

Humanities 1A/1B
Bay's Humanities 1 and 2 sequence, taken in 9th- and 10th-grades, is an interdisciplinary program that integrates the study of literature, history, world religions and belief systems, ethics, and the arts. In this first year of the two-year sequence, students explore their and others' journeys while asking essential questions about core human experiences: *Who am I? How does family shape my identity? What is community? Who belongs and who is excluded? What is culture? How does it change? What is society, and how does it influence its members?* Starting with the personal, students expand outward by examining the role of successively larger systems through cultural, historical, literary, political, and social lenses. Via a diverse range of literary works, students explore how systems shape their and others' identities and worldviews, thereby coming to better understand the intersections of race, class, gender, sexuality, ability, socio-economic class, immigration status, and age. Along the way, students develop skills essential to their work in Bay's Humanities program: grammar foundations, critical thinking, collaboration, listening, speaking, reading for history and literature, and analytical writing. **No prerequisite.**

Humanities 2A/2B
Bay's Humanities 1 and 2 sequence, taken in 9th- and 10th-grades, is an interdisciplinary program that integrates the study of literature, history, world religions, ethics, and the arts. The second year of this two-year sequence continues to examine the role of systems in social life by asking essential questions aimed at understanding our core experiences as human beings: *How do systems of power develop? How do these systems shape our world? How and why are these systems upheld or dismantled?* Students begin the year by studying power systems, with a particular emphasis on the legacy of colonialism worldwide. The second semester turns from colonial empires to 20th century world events that reshaped the world order, including WWI, WWII, and contemporary conflicts that grew out of the post-war period. All the while, students develop critical reading and analytical writing skills through their encounters with increasingly challenging primary and secondary source texts.
Prerequisite: Humanities 1

Subject Area: English

All of the courses in this section are open to 11th and 12th graders only and are one term in duration. Many courses in this section are offered on a rotating basis; there is no guarantee that these same elective courses will be offered in next year's course catalog.

American Rage: An Inquiry into Political and Social Discourse

Honoring differing backgrounds in America has become more difficult over the past two decades. We have become a divided nation. Those on the right often say we live in a time of "victimhood." Those on the left demand that they be seen, heard, respected, and valued. We oftentimes find ourselves in the middle of a discourse we don't fully understand or have any exposure to. This course is designed to investigate the evolution of civil discourse from the country's founding to current day through activism and coalitions building. Further, we will consider how authors, filmmakers, newsmakers and media outlets have underserved the American public and help create and foster division. From riots to "peaceful" protests to insurrection, everyone wants their voices to be heard. Activist writing exists in all genres of literature, from comic books to poetry and spoken word to memoir and adult fiction. We will consider how different media have significantly shaped public perceptions of contemporary issues and how they have made civil discourse more difficult. By reading authors like Isabel Wilkerson, Arlie Russell Hochschild, Mariam Schneir, Charles Blow, Maria Machado, and various poets and essayists, students will be exposed to a range of voices and ways of communicating through conflict. **Prerequisite:** Humanities 2 **Course Credit:** English

Asian American Literature

This course will explore the historical and social roots of Asian American literature throughout the 20th and 21st centuries by reading essays, poetry, short fiction, novels, and experiencing music, art, and film. The course intends to reflect the ethnic diversity of Asian American experiences and explores identity at the intersections of race, ethnicity, gender, sexuality, religion, and social class. Likely texts include: *When the Emperor was Divine* by Julie Otsuka, *Interior Chinatown* by Charles Yu, *excerpts from On Earth We're Briefly Gorgeous by Ocean Vuong* and short stories, poetry, and nonfiction by Ocean Vuong, Jhumpa Lahiri, Geeta Kothari, Ken Liu, Amy Chua and Wesley Yang. We will consider questions such as: *How do Asian American writers represent the United States? How do they represent their nations of origin or the traditions and history of their ancestors? How does gender intersect with race or ethnicity? What historical events or experiences do they examine and illuminate? How does history shape their contemporary lives and attitudes? What does it mean to be an American? How is identity produced and reflected in the works we read?* Students practice writing in a range of modes, including personal narrative, short fiction, and analytical writing. **Prerequisite:** Humanities 2 ***Course Credit:** English. *This course meets Bay's Ethnic Studies designation.*

Banned Books (Honors)

Every year hundreds of books are challenged or banned from schools and libraries across the country. Books are challenged for a variety of reasons, but often the challenges center around issues of race, ethnicity, sexual orientation, or anything deemed "obscene" by a particular group. But, what is obscenity and who defines it? In this course, we will read and analyze texts from the American Library Association's lists of banned and challenged books and delve into the political and social contexts of each. Potential texts include: Harriet Beecher Stowe's *Uncle Tom's Cabin*, the first book to be subject to a national ban because of its anti-slavery narrative, as well as classics like *The Jungle* by Upton Sinclair, *Catch-22* by Joseph Heller, *The Handmaid's Tale* by Margaret Atwood, *Brave New World* by Aldous Huxley, *1984* by George Orwell, *Fahrenheit 451* by Ray Bradbury, in addition to more modern works like *Persepolis: The Story of a Childhood* by Marjane Satrapi and *The Miseducation of*

Cameron Post by Emily M. Danforth. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Humanities 2 ***Course Credit:** English

Breaking the Singular Story (Honors)
Whose stories are told? And who gets to tell them? Who, even, has just one single story to tell? In this course, students examine how dominant cultures create single stories and the lengths authors take to break them. Essential questions include: *How do authors complicate narratives, thematically and structurally, to offer more accurate, representative, and pluralistic depictions of their communities? What does a singular story inherently miss? What truth, insight, and beauty can we gain by hearing a multiplicity of voices in a text, rather than just one?* Featured texts in this course may include *Sister Outsider* by Audre Lorde, *I Know Why the Caged Bird Sings* by Maya Angelou,, *There There* by Tommy Orange, *Citizen* by Claudia Rankine, *When We Were Sisters* by Fatimah Asghar, the Ms. Marvel series, and others. Using these texts, students will engage in thoughtful discussions, create collaborative art projects, learn skills for college level literary criticism, and compose their own creative work to offer complex narratives about their communities. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Humanities 2. *This course meets Bay's Ethnic Studies designation.*

British Literature, 17th Century to Present (Honors)
This course takes students through the literary history of Great Britain, beginning in the 17th century and continuing through the early 20th century. As time permits, we will look at works from the late 20th to early 21st centuries. Students gain a broad understanding of the history and literature of Great Britain while learning about the notions of empire, colonization, domination, and, ultimately, Britain's place in the cultural and literary world of today. The course is a comprehensive survey that exposes students to some of the most important literary works and ideas ever written in English. To that end, we examine poetry, nonfiction, short stories, novels, plays, and essays written by some of Britain's most known authors, including Chaucer, Spencer, Shakespeare, Herbert, Donne, Austin, Wollstonecraft, Wolfe, and Lawrence. Students come to understand the ways in which British literature adapts, changes, reverts, recollects, and builds upon itself and the effects those works had on the world at large. Students question how ideas of empire, religion, science, war, gender, sexuality, race, and class are considered, contested, and praised throughout Britain's literary tradition. Students should be prepared to manage a significant reading load and sometimes complex assignments, as well as substantial advanced research and independent work. Come read with us and learn the origins of many of the colloquial expressions, witticisms, and plotlines that are still being explored by authors and scholars today. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Humanities 2

Craft of Writing
This student-driven, project-based course focuses on the genres of memoir, analysis, and short story. Over the course of the semester, students read mentor texts from each genre, and, applying what they have learned, compose works of their own. With the help of instructor and peer feedback, students take each project through 5-6 fully revised drafts. In the process, students learn how to employ grammar-as-style to hone their personal writing voices in different genres. By the end of the term, students will have composed three major pieces of writing. Likely authors include Joan Didion, Jonathan Safran Foer, Roxane Gay, Nadine Gordimer, Stephen King, Anne Lamott, Haruki Murakami, Flannery O'Connor, Richard Rodriguez, David Sedaris, and Tobias Wolf. [This course was previously titled Advanced Composition. If you previously took Advanced Composition, you may not repeat Craft of Writing.] **Prerequisite:** Humanities 2

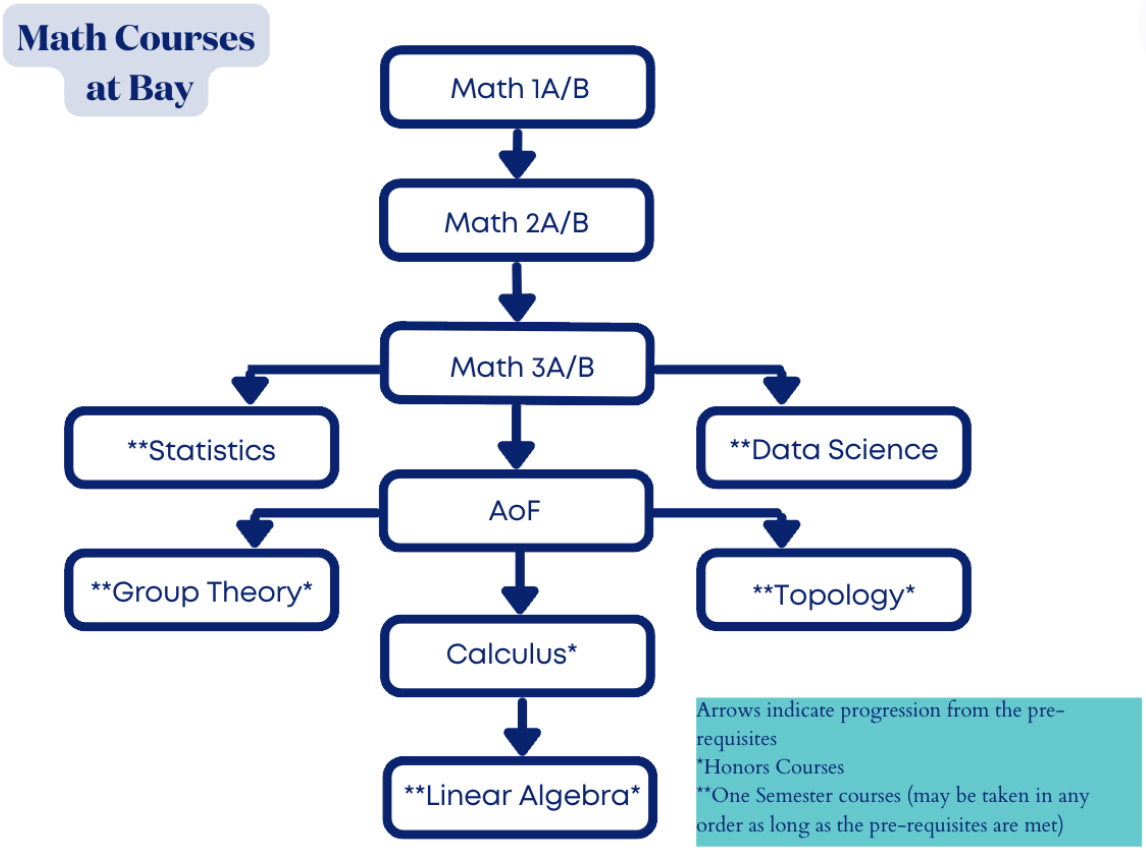
Essay and Memoir (Honors)

This course examines the nonfiction genres of memoir and personal essay, which, while attending to factual accuracy, focus on personal experience and individual ideas. Students read numerous short essays along with a book-length memoir, critically analyze the various approaches authors take when working within these genres, and distinguish how writers create artistic/literary works distinct from journalism, biography, and fictional storytelling. In addition to reading, listening to, and writing about important literary nonfiction works, students compose their own memoirs and essays, one of which they turn into a video essay or audio segment in the style of podcasts such as *This American Life* and *The Moth*. Be advised, these genres often give readers the opportunity to engage the harsh realities of being human from a relatively safe, if not entirely comfortable, distance. Many of the assigned readings discuss sensitive and emotional topics. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Humanities 2

Indigenous American Literature
In this course, students study works by indigenous Americans in the 20th/21st centuries, including novels, short stories, poetry, essays, historical documents, and films. We examine how indigenous communities have sought to document experiences in their own words and narrative forms and how they continue to try to wrest representational control from the enduring narrative tropes of the colonizer: the monolithic story of a mythologized people from a distant past, honorable mascots for sports team, or stoic and proud people who were once great warriors. Ultimately, this class focuses on challenging, and often unlearning, the lenses of dominant American culture in order to approach an understanding of the complexities of indigenous American identity and experience through literature. In this literature course, students read extensively; examine nuances of literary form; analyze media; write critically and creatively; engage in discussion with peers, professionals, and advocates; experience and observe indigenous traditions; and challenge prior notions of what it means to be Indian in the United. **Prerequisite:** Humanities 2 ***Course Credit:** English. *This course meets Bay's Ethnic Studies designation.*

The Good Life
In this course, inspired by Dr. Laurie Santos' class "Psychology and The Good Life," students examine what it means to live "The Good Life" by reading philosophical texts, essays, and works of fiction. Key topics will include the nature of happiness in our modern world, cognitive and emotional well-being, emotional agility, self-examination, and social justice. Throughout the course, students will engage in large and small group discussions and dramatic activities. They will write analytical and creative pieces, and will engage in introspective exercises and projects to help them learn and practice skills to lead a more meaningful life. Potential thinkers/authors include Aristotle, Plato, Epictetus, William B. Irvine, Brenè Brown, Susan David, Thich Nhat Hanh, Eckhart Tolle, Jonathan Haidt, Paulo Coelho, Henrik Ibsen, David Sedaris, Mindy Kaling, and Rachel Bloom.
Prerequisite: Humanities 2 ***Course Credit:** English **or** Religion/Philosophy

Subject Area: Math



Math 1A/1B

This two-semester course is the first in a three-year sequence of integrated courses (Math 1, Math 2, and Math 3) that form the core math curriculum at The Bay School. Math 1 introduces students to problem-solving approaches built on mathematical "habits of mind, where they work independently and also practice working on challenging problems within groups." Students explore problem solving using tables, graphs, visuals, and algebraic methods. Students work with linear models and real-world scenarios, exponents and functions, statistics, and geometry. Math 1 students also spend time building fluency in basic algebraic manipulations and techniques. **No prerequisite.**

Math 2A/2B

This two-semester course is the second in a three-year sequence of integrated courses (Math 1, Math 2, and Math 3) that form the core math curriculum at The Bay School. In Math 2, students extend their study of algebra and geometry. The course focuses on functions and mathematical proofs. Students analyze, compare, and apply different function models in various representations, and use these to analyze scenarios and make predictions. Students also learn how to write proofs about parallel lines and polygons. Finally, the class explores probability and an introduction to right triangle trigonometry. **Prerequisite:** Math 1 **or** placement test

Math 3A/3B
This two-semester course is the third in a three-year sequence of integrated courses (Math 1, Math 2, and Math 3) that form the core math curriculum at The Bay School. Math 3 covers a variety of topics drawn from advanced algebra, geometry, trigonometry, and statistics, including but not limited to: circles, trigonometric functions, exponential and logarithmic functions, and statistical inference. The course's major throughlines include the use of functions and other mathematical tools to explore, model, and analyze real-world phenomena. **Prerequisite:** Math 2 **or** placement test

Analysis of Functions A/B
Analysis of Functions is a two-semester course in which students make the transition from the conceptually-oriented approach of previous mathematics courses to the more rigorous deductive approach seen in higher-level mathematics and science courses. Students who may desire to study a math- or science-related field in college should take this course, as it prepares students for the study of calculus and other advanced mathematical studies. Topics covered include function transformations, the theory of inverse functions, logarithms, polynomial and rational functions, analytic trigonometry, and advanced algebraic manipulations. Students work on a culminating project in which they identify and teach the class about the math involved in a topic of personal interest. **Prerequisite:** Math 3

Calculus A/B (Honors)
This is a two-semester course in single-variable differential and integral calculus with an emphasis on applications to the physical, life, and social sciences. Major concepts are developed through the investigation of practical, real-world scenarios. Topics covered include applications of the derivative as a rate of change and a slope, symbolic formulas for computing derivatives, applications of the definite integral as an accumulation function and an area, creation of mathematical models using Riemann sums, symbolic techniques of anti-differentiation, and optimization. Calculus is a culminating math class that will require students to know and draw on topics from all previous math classes including algebra, geometry, and trigonometry, requiring strong academic and mathematical skills. [This course is an Honors course; see Honors information for details.]
Prerequisite: Analysis of Functions A/B

Computer Science 1
This course introduces students to varied aspects of computer science, spanning the history of computer science, data management and structures, AI, security, ethics, and programming. Students develop programming skills and create projects using HTML, CSS, and the Python programming language. Programming topics include algorithms, functions, iteration, conditional statements, and collection data types such as strings and lists. Students learn to debug programs, work with data files, and write code that is both elegant and efficient. This course uses both online and instructor-developed resources. This course is available to students who have little or no prior programming experience. **No prerequisite. Course Credit:** Interdisciplinary (G)

Computer Science 2
This course deepens and extends student understanding of the structure, design, and interpretation of computer programs, as well as techniques for managing the complexity of large programs. Primarily project-driven, the course culminates in a capstone of the student's choice, where they design and develop a program with a technology of their own choosing (teacher approved). This course utilizes online resources intended for high school and undergraduate computer science students. **Prerequisite:** Computer Science 1 **Course Credit:** Interdisciplinary (G)

Group Theory (Honors)
Students in this course will sharpen their logical and critical reasoning skills as they dive into an entirely new way of describing mathematics known as abstract algebra. This proof-based course will hone students' skills in mathematical reading and writing. The course will start from first principles to find similarities and differences between the groups of integers, rationals, real, and complex numbers. Students will examine abelian groups, symmetries of polygons, homomorphisms, cyclic and permutation groups, matrices, and other topics. Group theory gives mathematicians a whole new way to think about numbers—though you might not see many numbers in this course—that is different from what students have seen so far. [This course is an Honors course; see Honors information for details.] **Prerequisite**: Analysis of Functions A/B

Linear Algebra (Honors)
For much of a high school student's math education, one dwells in the world of two or possibly three dimensions. In this course we will delve into the generalization of solving linear equations in higher dimensions, and more abstractly in R^n. In this proof based treatment of Linear Algebra, students will practice their mathematical reading and writing skills as we explore topics of linear dependence, matrix properties, vector spaces, orthogonality, determinants, and linear transformations. To ground our understanding of what will be for many, unfamiliar territory, we will relate theory to applications in fields such as physics, geometry, economics, biology, and computer science. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Calculus A/B

Statistics
This one-term course has two guiding questions. First, *How can one collect meaningful data about a population without examining every single member of the population?* Secondly, *How can one analyze this data quantitatively to reach statistically valid conclusions about a population?* Students learn topics through case studies that illustrate how statistical concepts apply to various situations, events, and data sets. Connections between statistics and current events are highlighted throughout the term. Students also use statistical software, graphing calculators, software applets, and online labs. **Prerequisite**: Math 3

Topology (Honors)
Imagine a world where everything is made of a stretchy material that can be molded into whatever you like...but can't be torn apart. In this world, bowls and plates are the same because each can be changed into the other, but a coffee mug is different because of the hole made by the handle. Topology is the branch of math which studies shapes and spaces but does so while ignoring things like size and angle. In topology, squares, rectangles, parallelograms, trapezoids, and circles are all considered to be the same. But here's the tricky question: if we ignore these ways of measuring, how can we tell when two shapes are different? Students enrolled in this one-term course start by examining questions like this and quickly progress to speculations about the shape and fundamental nature of the universe. Mobius strips, Klein bottles, tori, gluing, orientability, and dimension—including ways to represent the fourth dimension—are all ideas that students examine and investigate. [This course is an Honors course; see Honors information for details.] **Prerequisite**: Analysis of Functions A **Can be taken concurrently with Analysis of Functions B.

Using Data Science to Explore Social Issues

The guiding question for this course is: *How can we utilize data science to expose, argue for, and stay curious about social justice topics?* Much of today's interactions occur under the guise of machine learning algorithms that attempt to anticipate our actions and manipulate our decisions. With the age of Artificial Intelligence afoot, we must be capable of understanding the social justice implications that arise from its use, and be able to peel back the curtain to reveal what is truly going on. In this one-term course students explore how "Big Data" is used, and address the ethical issues that come with its misuse. Students learn how to program their own machine learning algorithm, including a neural network, and explore the impact of overlooking structural and systematic biases within the data that is used to build them. This course has three principal objectives: To solidify our understanding of statistical analysis and build an understanding of machine learning algorithms and neural networks; to learn the basics of Python programming and how to create prediction algorithms; and to apply the learned data science skills to explore and argue for systemic changes to support social justice. In this class students explore topics such as, but not limited to, climate change, mass incarceration, and neighborhood dynamics. During the last third of the course, students demonstrate and further their learning by conducting in-depth research on a topic of their choosing.
Prerequisite: Math 3

Subject Area: Religion and Philosophy

All of the courses in this section are open to 11th and 12th graders only and are one semester in duration. Many courses in this section are offered on a rotating basis; there is no guarantee that these same elective courses will be offered in next year's course catalog.

Comparative Philosophy (Honors)
This course grounds students in the study of philosophy through the exploration of central questions within a comparative framework. Students read a wide range of responses to shared concerns, largely centering on the following three core questions: *What is the good life? How do we make ethical decisions? What is justice and the just state?* To address these questions, students explore both classical and contemporary thinkers from the East and West. Potential authors and texts include Confucius, *The Analects;* Aristotle, *The Nicomachean Ethics*; The Dalai Lama, *Ethics for a New Millennium*; Zhuangzi; Xunzi; Peter Singer; Viktor Frankl, *Man's Search for Meaning;* Kant; Mill; Jean Paul Sartre; Martha Nussbaum. The culminating work for the course is the film *Shawshank Redemption*. [This course is an Honors course; see Honors information for details] **Prerequisite**: Humanities 2.

Comparative Religion (Honors)
Comparative Religion examines how several faith traditions—Judaism, Hinduism, Buddhism, Christianity, and Islam—answer key existential questions and offer prescriptions for living a meaningful life. In addition to looking at key scripture from each tradition, students read and hear personal reflections from those who are adherents of each faith. As a means of introducing students to each religion's core beliefs and common practices/rituals, the course also exposes students to the artistic traditions—visual, decorative, theatrical, and/or musical—that have developed to celebrate faiths and build communities. [This course is an Honors course; see Honors information for details.] **Prerequisite**: Humanities 2

Ethics & Ethical Decision Making
This foundational course examines what it means to live consciously and ethically, exploring our responsibilities both to ourselves and to our society. Students grapple with themes of freedom and obligation, individuality versus the collective, and the validity of established moral codes as presented through philosophy, film, and literature. Through this class, students are asked to critically reflect on their own moral codes in light of the ethical frameworks and dilemmas studied. Students will explore these frameworks through short case studies (possible topics include social media, privatized health care, affirmative action, and AI) and a project-based individual exploration of a topic of personal interest. The goal of this course is to make ethics accessible and applicable to real-world contexts, meaning that all students—regardless of their interest in philosophy—can find something of value both in the questions this class poses and the problems it considers. While this course does not necessarily provide answers, it helps students reflect on the ways they want to move in the world and how they hope to effect change. Possible thinkers include Mencius, the Dalai Lama, Dr. Martin Luther King, Jr., Aristotle, Kant, Mill, Hannah Arendt, Peter Singer, John Rawls, and Elizabeth Anderson. **Prerequisite**: Humanities 2

The Good Life

In this course, inspired by Dr. Laurie Santos' class "Psychology and The Good Life," students examine what it means to live "The Good Life" by reading philosophical texts, essays, and works of fiction. Key topics will include the nature of happiness in our modern world, cognitive and emotional well-being, emotional agility, self-examination, and social justice. Throughout the course, students will engage in large and small group discussions and dramatic activities. They will write analytical and creative pieces, and will engage in introspective exercises and projects to help them learn and practice skills to lead a more meaningful life. Potential thinkers/authors include Aristotle, Plato, Epictetus, William B. Irvine, Brenè Brown, Susan David, Thich Nhat Hanh, Eckhart Tolle, Jonathan Haidt, Paulo Coelho, Henrik Ibsen, David Sedaris, Mindy Kaling, and Rachel Bloom. **Prerequisite:** Humanities 2 ***Course Credit:** English **or** Religion/Philosophy

Subject Area: Science

Astronomical Research Seminar
Make your mark on the canvas of the cosmos. This is a research-based course centered on a collaborative project designed to understand the deep, expanding depths of the universe and its celestial components. The research project-- exploring an astronomic or astrophysical aspect of space-- will be developed and pondered utilizing both archival and primary data. Project ideas include, but are not limited to: radio telescope construction & use, exoplanet hunting, stellar atmosphere investigation, and identifying the characteristics of Earth's ionosphere. The final deliverable may range from a graphical collection of your findings to a published paper of new and exciting stellar discoveries! **Prerequisites:** Astronomy: Observatory *or* Astronomy & Stellar Astrophysics *or* instructor approval

Biology 1A/1B
This two-semester course completes the core science requirements for graduation and builds on the scientific foundations of Conceptual Physics 1 and Chemistry 1. Students apply the concepts and skills learned in their previous science courses to living systems, which culminates with a quarter-long laboratory research capstone project in the second semester. This course employs a variety of investigative techniques, including open-ended laboratory experiments, critical reading of texts, manipulation of data, individual and group research projects, and debates and discussions to help students build a solid understanding of the core concepts of biology. Major topics include ecology, evolution, cellular inheritance and function, and genetics. **Prerequisites**: Conceptual Physics 1, Chemistry 1

Biology 2A/2B (Honors)
Biology 2 is a two-semester, advanced-level, experimental evidence-based course for students who have an interest in pursuing biology at the college level. The course captures most (but not all) of the breadth of a typical college-level biology course while allowing for greater opportunity to explore a few topics of special interest in greater depth. The core units of Biology 2 are biochemistry, metabolism, cellular biology, molecular genetics and biotechnology, physiological adaptations of plants and animals, and evolution and behavior. Each unit has either a substantial lab-based component or a research project where students read primary literature and practice common methodologies. Students must take both semesters of this course. [This course is an Honors course; see Honors information for details.] **Prerequisites:** Conceptual Physics 1, Chemistry 1, and Biology 1 **or** demonstrated completion of Biology 1 (see below).

> Please Note: Rising 11th graders interested in taking Biology 2 during their 11th-grade year can take an eligibility test followed by completion of Bay's self-study OR complete an approved summer course to move directly into Biology 2 (an honors course). (Note that Biology 2 is not an honors version of Biology 1; rather, it is the next course in Biology and assumes a working knowledge of material covered in Biology 1.) This process is described in more detail in this timeline and in this student guide. **Students interested in pursuing this path must complete the Biology 2 contract and turn it into Science Department Chair, Julie Spector-Sprague, by February 19th.**

Chemistry 1A/1B
In this two-semester course, students learn about chemical and physical properties of matter, chemical energy, how to chemically describe substances and count particles, bonding, reactivity, atomic models and periodicity, heating and temperature, acidity and basicity, and more. Throughout the course, students engage in class discussions and lab activities. The laboratory component involves both hands-on benchwork and digital tools. In addition, the course provides students with opportunities to consider the societal impacts of chemistry, both historically and in the context of current events. **Prerequisite:** Conceptual Physics 1

Chemistry 2A/2B (Honors)
This two-semester, second-year chemistry course builds upon students' understanding of the concepts covered in Chemistry 1 and introduces key new principles and sophistication. Major topic areas in this course may include, but are not limited to, the structure and interactions of matter, stoichiometry, thermochemistry, thermodynamics, periodic trends, chemical equilibrium, acids and bases, kinetics, and electrochemistry. Chemical principles are explored through laboratory investigations, research projects, readings, and class discussions. The course is intended to prepare students for the successful study of chemistry at the college level. Students must take both semesters of this course. [This course is an Honors course; see Honors information for details.]
Prerequisites: Conceptual Physics 1, Chemistry 1, successful completion of preparatory review assignments during the summer (approximately 5 hours of work)

Conceptual Physics 1A/1B
This two-semester course serves as an introduction to science at Bay. Students will explore a range of topics in physics, including energy (both qualitatively and quantitatively), matter, velocity, the vector nature of forces, conservation laws, work, heat, and principles of electricity. Students should expect to spend substantial time in the laboratory, where they will learn how to design and run experiments, as well as how to graphically analyze their data. This course emphasizes the development of multiple skills, including writing scientific arguments, analyzing experimental error, using electronic spreadsheets, working algebraically with linear relationships, and collaborating in groups. **No prerequisite.**

Earthquakes and Volcanoes
In this semester-long course, students will apply geologic, chemical, and physical first-principles to understand earthquakes and volcanoes as consequences of plate tectonic activity. Students will study the development of the scientific method, the theory of plate tectonics, and our current understanding of Earth's origins and structure, including its chemical composition and physical properties. The course then covers seismic events, including their causes, wave types, and surface impacts, as well as the distribution, types, and eruption dynamics of volcanoes. Students will analyze prehistoric geological records, engage in hands-on activities, fieldwork, and collaborative projects, and develop skills to communicate science effectively through oral, visual, and written formats. Emphasis is placed on independent and collaborative learning and teamwork.
Prerequisites: Conceptual Physics 1, Chemistry 1
The following are components of this course that may occur beyond school-based classes:

- **OVERNIGHTS:** This course may include an optional multi-day overnight trip to Lassen Volcanic National Park during midterm break. This will depend on student interest and availability.
- **PHYSICAL ACTIVITY:** This course requires one field trip during the school day to Sibley Volcanic Regional Preserve in Oakland. Some hiking is required on this trip.

Evolutionary Biology
In this one-semester course, students will delve into the broad and fascinating field of evolutionary biology. This branch of biology is the scientific study of how living organisms have changed and diversified over time. It explores the processes that have led to the incredible variety of life on Earth, from the smallest microorganisms to the largest mammals. Evolutionary biologists investigate how species have adapted to their environments, how new species have emerged, and how genetic changes have occurred over generations. This field of study helps us understand the interconnectedness of all living things and the mechanisms that drive the diversity of life on our planet. Building upon their foundational knowledge of biology, students will explore the mechanisms of evolution, the evidence for evolutionary theory, and the impact of evolutionary processes on the diversity of life on Earth. **Prerequisites:** Biology 1 (students who have already taken Biology 2, or are co-enrolled in Biology 2, are also welcome to enroll in this course)

Human Genetics & Disease
Did you take Biology 1 and wanted to just keep learning about genetics? Do you draw Punnett squares idly in your other classes? Do you look at historical royal families and wonder *what happened?* Then this class is for you. In this course, you'll be reminded of the foundational unit of genetics (DNA) and basic molecular biology techniques. You'll learn about simple Mendelian genetics (don't worry, we won't grow peas), and the simplest genetic disorders and inheritance patterns. Once you've genotyped yourself for a simple trait and can map out all those recessive disorders of royal pedigrees, you'll move onto multifactorial diseases, epigenetics, and gene-environment interactions. You'll spend time working on projects related to genetic testing, epigenetics, and gene therapy. You and your classmates will discuss ethical considerations, the racist history of the field of genetics, gene editing, and numerous case studies. Your independent research project will use primary literature to investigate past topics more deeply, or dip into cancer genetics, genetic models, infectious disease genetics, personalized medicine, and beyond. There will be some hands-on lab work with short lab reports, individual presentations, discussions and group projects. **Prerequisites:** Chemistry 1, Biology 1 (students who have already taken Biology 2, or are co-enrolled in Biology 2, are also welcome to enroll in this course)

Human Physiology (Honors)
Human Physiology explores the inner workings of the human body and the interconnectedness of body systems in order to maintain homeostasis. Starting with an overview of different types of human tissues, this semester-long course will survey major body systems including the nervous, muscular, immune, circulatory, respiratory, endocrine, excretory, and digestive systems. This course will provide the ideal foundation for students wanting to expand their vocabularies and learn about the body and its levels of organization, as well as common diseases that cause dysregulation in these systems. Physiology is a laboratory-intensive course where students will gain hands-on experience identifying the structures and functions of different organs. Students will also collect longitudinal data on their vital signs throughout the semester and analyze their findings in relationship to the current medical literature. Students will need to be comfortable with dissection as part of the lab experience. [This course is an Honors course; see Honors information for details.] **Prerequisites:** Chemistry 1, Biology 1 (or equivalent), Biology 2a (meaning Biology 2b students may be co-enrolled in Human Physiology)

Physics 2A/2B (Honors)
Nearly everything we experience is a manifestation of physics. In this two-semester, advanced-level course, students will mathematically and experimentally explore ideas that underpin Newtonian physics (and some aspects of modern physics) with great depth and nuance. Topics include forces, kinematics, circular motion, gravitation, periodic motion, oscillations, energetics, momentum, and (time permitting) rotational dynamics, optics, special relativity, or quantum mechanics. Students should expect to frequently draw from the mathematical skills they acquired in their pre-calculus math courses, as well as from their developing familiarity with calculus. Classes will feature an intentional mix of analytical problem solving, derivations, laboratory investigation, lecture, discussion, and group work. The course is intended to prepare students for the successful study of physics at the college level. Students must take both semesters of this course. [This course is an Honors course; see Honors information for details.] **Prerequisites:** Conceptual Physics 1, Chemistry 1; students must either be co-enrolled in Calculus or have already completed Calculus

Power Generation: Transitioning from Fossil Fuels to Renewable Energy
The Industrial Revolution saw the emergence of fossil fuels as the world's premier energy source. In the 200 years since, we've watched that technological advancement sour and damage our world, polluting the air, water, and overall climate. This one-term course will explore the potential of alternative and renewable resources to replace fossil fuels, including: hydroelectric, solar, wind, and nuclear options. Current events and initiatives to implement renewable energy generators will be a large focus of this course, as we investigate the global efforts to move away from fossil fuels. Students should expect to engage in an open-ended, project- and research-based collaborative environment and be prepared to incorporate knowledge from physics, chemistry, and mathematics courses. **Prerequisites:** Conceptual Physics, Chemistry 1

Quantum Mechanics (Honors)
Is there a phrase that elicits more excitement, intimidation, or science fiction plot devices than "quantum mechanics"? In this semester-long course, we will use the stunning power of linear algebra (aided by calculus and probability) to contend with the physics of the electron and the atom, always taking comfort in theoretical physicist Richard Feynman's famous observation: "I think I can safely say that nobody really understands quantum mechanics." Along the way, we will use a proof-driven approach to dive deeply into both the physics and the mathematics. Potential topics include, but are not limited to, the ultraviolet catastrophe, the photoelectric effect, operators, additional linear algebra topics (e.g. eigenvalues, eigenequations, Hermitians, and bra-ket notation), superposition, interference, Hamiltonians, orbitals, probability density, Heisenberg's Uncertainty Principle, Schrödinger's time-independent equation and solution for hydrogen, wavefunctions, momentum, the Copenhagen interpretation, that famous cat, and the many worlds interpretation. Students should expect a great deal of derivations, proof writing, difficult and upsetting problems, reading primary literature, and potentially even an existential crisis or two. Please note that while there will be some lab-based activities and demos, this is not a lab-driven course. [This course is an Honors course; see Honors information for details.] **Prerequisites:** Conceptual Physics 1, Chemistry 1, Calculus A/B, Linear Algebra. Please note that Physics 2 is not a co-requisite of Quantum Mechanics (although students are welcome to co-enroll in Physics 2).

Sustainability and Earth Systems

The Earth may be at a tipping point largely driven by anthropogenic factors such as population growth, the unmitigated extraction of natural resources, and excessive dumping of carbon dioxide and other greenhouse gases into the atmosphere. The goal of this course is to learn compelling science that can guide solutions to these environmental problems. The course includes elements of life science, physical science, and social science. Concepts are explored through inquiry-based laboratory exercises, analysis of current trends and events, student projects, guest speakers, novel gameplay modeling green power infrastructure, podcasts, and many other contemporary media. This course has four principal objectives:

- Introduce students to the science of earth systems and climate change, drawing attention to the pattern of scientific data that has emerged in recent years.
- Highlight the recommendations of the US Government, the U.N. IPCC and the COP conferences for international and domestic policy as well as sound and sustainable governance.
- Investigate the ethical challenges raised by climate change and explore questions of environmental justice and personal responsibility as they apply to climate change.
- Encourage students to participate in local activism, actively becoming part of the proposed solutions: think globally, act locally.

Prerequisites: Conceptual Physics 1, Chemistry 1

Subject Area: Senior Projects

Senior Projects A/B
This is a two-semester course in design thinking, project planning, and project management. Senior Projects must satisfy three broad criteria:

- A Senior Project serves as a de facto "final assessment" for being a graduate of The Bay School. As such, each project gives 12th graders the opportunity to demonstrate qualities that are highlighted in the school's philosophy. This includes intellectual entrepreneurship, generating solutions to real-world problems, taking risks, responding gracefully to setbacks, and becoming an engaged citizen beyond the boundaries of the school.
- Senior Projects provides 12th graders the opportunity to function as young professionals working in a field rather than high school students studying that field. These experiences foster and encourage a growth mindset by allowing students to make mistakes, learn from them, and grow in professional settings rather than classrooms.
- Senior Projects are grounded in empathy so that they serve the needs of a constituency broader than the student in an intentional and mindful way.

Students serve as their own project managers by crafting proposals which articulate what they want to achieve and who they seek to help beyond The Bay School community. They draft project plans, timelines, and budgets that establish internal benchmarks and milestones. They conduct background research to ensure that their projects are innovative and add to the existing work in their chosen fields rather than replicate the work of others. They network to find knowledgeable professionals who can mentor them and provide guidance and expertise throughout the two-semester process. Required culminations by the end of the course include completing their project work, delivering a formal Presentation of Learning, and participating in a public Exhibition Night event on campus. Required of all 12th graders. **No prerequisite.**

Senior Project Options:

- **Maker Space:** Do you love to build, engineer and make things? If you imagine applying your passion for making to your Senior Project and would like to have access to the engineering lab (first floor of the Project Center) there will be an option to sign up for a Makers Section of Senior Projects. Placement in this section is contingent upon the number of sign-ups and other scheduling considerations.
- **Junior Option: Get a spring on your Senior Project.** Getting started on your senior project during your junior year gives you the opportunity to have something spectacular to show off midway through your senior year. This will also give you the summer between your junior and senior years to pursue something complicated and awesome that you love. During the spring of your Junior year you'll start playing with project ideas, get a mentor, get funding and then get creating! You'll finish your Senior Project during the fall of your senior year. Why wait to be remarkable, your future begins junior spring!

Subject Area: Social Studies

All of the courses in this section are open to 11th- and 12th-graders only and are one semester in duration. Many courses in this section are offered on a rotating basis; there is no guarantee that these same elective courses will be offered in next year's course catalog.

African Studies

Comprehending Africa's remarkable richness and complex challenges is vital to understanding our global community, yet the region continues to be the world's most misunderstood continent. This course invites students to get to know Africa by briefly surveying its history and then deeply exploring its contemporary cultures, politics, and societies through film, literature, journalism, music, social science writing, and visual arts. Students will gain a sense of the region's tremendous accomplishments as well as its most pressing problems through a case study approach focused on four to five countries representative of Africa's diversity. The final segment of the course will consist of student-led investigations, presentations, and discussions of additional country case studies, which students have chosen and conducted. **Prerequisite:** Humanities 2 **Credit:** Social Studies/ World History *This course meets Bay's Ethnic Studies designation.*

Artist as Activist

Can art change the world? History and current examples show that it can, and that the effects are profound. This integrated course combines political, social and art history with hands-on studio art experiences to explore the ways in which the arts are a tool for social change. The course is team-taught by two teachers, one with expertise in art and one with background in social studies and history. Students will research historical and contemporary social movements and produce original artwork reacting to a range of issues. Topics may include: labor and class; civil rights and racial equality; feminism and gender; the environment; youth movements and culture; war and violence. Artists may use written or spoken words, posters, painting, photography and performance. The course is project-based; students build skills and content knowledge through authentic, flexible, student-directed projects. **Prerequisite:** Humanities 2 ***Course Credit:** Arts **or** Social Studies

Ethical Economics

People often use economic concepts to evaluate public policy options—asking, for example, whether proposals are "efficient," whether their "costs" outweigh their "benefits," or whether they resolve "market failures." Economic concepts are also used to describe and evaluate individuals' actions: we often wonder whether people are behaving "rationally," for example, or whether their "self-interest" is leading them to betray the broader good. These questions have a scientific veneer, but they are also bound up with ethical and political issues. This course will investigate the intersections of ethical, political, and economic inquiry. We will examine the philosophical foundations of economic theory and scrutinize the tools economists use to evaluate public policies. Students will learn the basics of micro and macro-economics, explore major economic theories of thought, and critique these through an ethical lens. Students will examine how economic thought helps and hinders efforts to address thorny, real-world topics such as environmental policy, healthcare, public education and school choice, free trade and globalization, poverty and inequality. The course will culminate in students' own economic and ethical proposals for resolving some of society's most pressing issues. **Prerequisite:** Humanities 2

Ethnic Studies: Race, Class, and Gender
In this course, students will engage with key texts around issues of race, class, and gender in order to better understand the history, theory, and modern implications of these essential topics. Students will gain fluency in discussing these topics so they can be more prepared to engage dynamically in the complexities around these issues in the real world. In addition to essential texts by authors like bell hooks, Audre Lorde, Judith Butler, Kimberlé Crenshaw, Edward Said, and Michel Foucault, we will be equally focused on how these issues show up in the news and on social media on a daily basis. In addition to practicing our skills around critical reading, analytical writing, and engaged discussion, a significant focus of this course will be to work on how students can communicate with others around these issues so that their learning and work in this course will have broader implications in our community and in our broader society. **Prerequisite:** Humanities 2. *This course meets Bay's Ethnic Studies designation.*

Human Geography (Honors)
How do cultural, environmental, and economic factors interact to shape the distribution and evolution of human settlements globally? What role do geographical features and spatial patterns play in influencing the development and diffusion of various cultural practices, including religion, food, and architecture? How do population dynamics, including migration trends and demographic shifts, impact social, political, and economic landscapes in different regions around the world? Human Geography delves into the dynamic relationship between human societies and their environments, exploring key themes like agriculture, architecture, culture, religion, food, population, demographics, environment, and housing. Through map analysis, GIS tools, and case studies, students examine the spatial distribution and interconnectedness of these themes globally. Emphasizing critical analysis, students investigate how human actions influence and are influenced by geographical factors. The course aims to develop a comprehensive understanding of how various socio-cultural, economic, and environmental elements shape our world, fostering a deeper appreciation for the complexities of global interactions as well as skills in spatial analysis. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Humanities 2

Queer History
Whether or not you identify as a part of the queer community, everyone living in the Bay Area has been impacted by queer history. Queerness is not only woven into the cultural and historic fabric of San Francisco, but also represents a revolutionary opportunity to rethink conceptions of family, community, sexuality, and gender. Although queer history is as old as human civilization, this course will focus primarily on modern American queer history. The Lavender Scare, the AIDS epidemic, underground queer subcultures, the Stonewall riots, San Francisco queer history, Pride celebrations, and the fight for marriage equality will all be topics of examination. Throughout these investigations, we will explore how identities beyond queerness intersect to inform individual and collective experiences. This course is for those who want to learn more about the interplay between oppression, celebration, and revolution; those who want to critically examine the ways in which American culture has evolved in response to queerness; and those who want to develop a deeper understanding of San Francisco history. **Prerequisite:** Humanities 2. *This course meets Bay's Ethnic Studies designation.*

U.S. Foreign Policy (Honors)
What role should the United States play on the global stage? How should the United States interact with other nations? In this course, students explore the development of U.S. foreign policy over time, with a focus on the present. The course begins by establishing a conceptual framework for the study of U.S. policy toward other nations. Students examine their own attitudes and ideologies about foreign policy, and learn different typologies by which foreign policy views are categorized. Next, they explore the major developments in U.S. foreign policy over the course of our history, with particular emphasis on the 20th and 21st centuries. Throughout, students examine the policy-making process, key domestic and international influences, policy consistencies and inconsistencies and historical and contemporary effects of U.S. policy on particular regions. In the final weeks of the course, students consider the United States' recent search for a policy appropriate to the multipolar world following the Cold War's end. As a culminating project, students propose policies they believe best suited to solving contemporary global challenges such as terrorism, rogue states, and climate change. [This course is an Honors course; see Honors information for details.] **Prerequisite**: Humanities 2

Subject Area: World Languages

Mandarin 1A/1B
This is a two-semester introductory course in Modern Standard Chinese (Putonghua). This course develops speaking, listening, reading, and writing skills. Students learn the tonal system, pronunciation, basic grammar, and the fundamentals of the Chinese writing system. Additionally, in view of the intimate relationship between language and culture, students learn about Chinese culture, recent history, and geography. During this course, students develop the ability to carry out simple conversations in Chinese on a limited range of topics. **No prerequisite.**

Mandarin 2A/2B
In this two-semester course, students review and continue working with the concepts and skills introduced in Mandarin 1, simultaneously building new vocabulary and increasingly complex sentence patterns. There is further focus on the Chinese tonal system and character acquisition. Students increase their ability to acquire pertinent information through listening, to express themselves with more confidence, and to read and write characters with greater fluency and ease.
Prerequisite: Mandarin 1 **or** placement exam

Mandarin 3A/3B
This two-semester course further develops students' communicative abilities in listening, speaking, reading, and writing modern Chinese. Students largely focus on strengthening their listening and reading comprehension skills through increased exposure to authentic material. Upon completion of this course, students are able to handle most daily conversations with relative fluency and are comfortable speaking and interacting in the target language.
Prerequisite: Mandarin 2 **or** placement exam

Mandarin 4A/4B
This two-semester course enhances students' abilities to communicate fluently and precisely in modern Chinese. This course incorporates both traditional Chinese stories and idioms, while at the same time exploring current events and youth culture in China. In addition to the textbook, the course makes use of authentic supplemental material to broaden students' vocabulary, idiomatic expressions, and cultural knowledge. Students learn to master more complex sentence patterns for the purpose of sustaining longer, more in-depth conversations. Students apply their knowledge of complex sentence structures and advanced grammar patterns to various forms of written expression. Finally, students express their opinions and creativity through various modes of presentation. **Prerequisite:** Mandarin 3 **or** placement exam

Mandarin 5A/5B (Honors)
Conducted entirely in Mandarin, this two-semester course explores the enduring influence of traditional martial arts cultural heroes, both real and fictional. The course explores how the *wuxia* concept has historically evolved to its present form, as seen in film, comics, and pop culture. Potential topics include chivalrous bandit heroes in Ming and Qing fiction, the Boxer Rebellion in Late Imperial China, and anti-dynastic sectarian movements in Ming and Qing history. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Mandarin 4 **or** placement exam

Advanced Topics in Mandarin A/B (Honors)
This two-semester course is for the advanced Mandarin Chinese language student who wishes to develop their language and critical thinking skills. In the first semester, students evaluate essays, short stories, films, and editorials in Mandarin Chinese that reflect the beginnings of modern Chinese literature. In particular, students will study the origins and impact of the May Fourth Movement and of Lu Xun's enduring influence on modern Chinese literature. The first semester enables students to develop comfort with reading historical and contemporary scholarly texts in Mandarin, discussing historical and contemporary issues facing China in Mandarin, and comfortably writing essays and short responses in Chinese to express their understanding of the May Fourth Movement and Lu Xun. In the second semester, students focus on current concerns in contemporary Chinese society. This semester enables students to understand current issues facing Chinese citizens and to develop and express their opinions on these issues clearly and eloquently in Mandarin Chinese. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Mandarin 5

Spanish 1A/1B
This two-semester course is an introductory course for students who want to begin to learn the language and cultures of Spanish-speaking countries. Students learn basic communication through speaking, listening, writing, and reading. Students develop proficiency in communicating about familiar topics such as school, family, and personal interests. Focus is placed on building confidence in self-expression, asking questions, developing resilience in learning a second language, and cultivating curiosity about the Spanish-speaking world. During this course, teachers and students communicate mostly in Spanish. **No prerequisite.**

Spanish 2A/2B
This two-semester course continues the development of the four major communication skills—listening, speaking, reading, and writing—begun in Spanish 1. Students develop proficiency in communicating about topics like travel, shopping, clothing, daily routines, and food. Classroom work is concentrated on developing language proficiency through active communication and negotiation of meaning and ideas. Students will engage with authentic sources created by and for Spanish Speakers around the world in order to gain cultural understanding and competence. During this course, teachers and students communicate primarily in Spanish.
Prerequisite: Spanish 1 **or** placement exam.

Spanish 3A/3B
This two-semester course integrates students' experiences and perspectives of the world around them. Students develop proficiency in communicating about topics like celebration, health, technology, and housing. Additionally, students continue to employ what they have learned in previous Spanish courses to fully communicate about more complex situations. Classroom work is concentrated on expanding language proficiency through active communication and negotiation of meaning and ideas. Students engage with authentic sources created by and for Spanish Speakers around the world in order to gain cultural understanding and competence. During this course, teachers and students communicate exclusively in Spanish.
Prerequisite: Spanish 2 **or** placement exam

Spanish 4A/4B
This two-semester course integrates language and culture by exploring topics like nature, our cities, well-being, and work-related topics. In this course, students explore questions such as: *How can I help create a more sustainable community? How and why would you choose a neighborhood? How do I work to promote my own happiness and well-being? What do I need to do to prepare to live, study, and/or work abroad?* The course uses current articles, websites, and other authentic resources from the Spanish-speaking world to develop more sophisticated and complex language skills and cultural awareness. Students build and demonstrate their knowledge through daily conversations, reading, and writing activities. During this course, teachers and students communicate exclusively in Spanish. **Prerequisite:** Spanish 3 **or** placement exam.

Advanced Topic in Spanish: History, Literature, and Culture A (Honors)
This advanced proficiency course examines significant historical topics related to Spain, drawing comparisons to the United States. Students will build their understanding of the Spanish Civil War—its causes, consequences, and broader impact—through an analysis of films, historical texts, art, and other media. The course encourages reflection on how historical lessons can shape our understanding of contemporary issues, fostering thoughtful discussions about the future. Students will demonstrate their learning through academic discussions, research, presentations, assessments aligned with the three modes of communication, and a project-based inquiry on a topic of their choice. The course emphasizes expanding students' vocabulary and solidifying previously learned grammar structures. Communication in the course is conducted exclusively in Spanish, providing an immersive learning environment. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Spanish 4 and endorsement of Spanish 4 teacher and Department Chair **or** placement exam.***Note: Students who have completed Bay's language requirement may sign up for one or both semesters. Students who took Advanced Topics C/D in the 2024-25 school year can sign up for this course for 2025-26.**

Advanced Topics in Spanish: History and Culture B (Honors)
This advanced proficiency course delves into Spanish Peninsular history and culture through the most significant events in the history of the Spanish language. Using a student-centered approach, students will explore topics such as the origins of the language, the periods and cultures that shaped modern Spanish, and the similarities and differences between historical and contemporary events that have influenced Spanish, its culture, and its role in the United States.

The course's communicative objectives include analyzing brief non-fiction texts and practicing narration and description in the past tense. Furthermore, the course offers opportunities to examine diverse perspectives—such as values, attitudes, and assumptions—through the study of culture, literature, and history, as well as their connections to contemporary contexts. During this course, teachers and students communicate exclusively in Spanish. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Spanish 4 and endorsement of Spanish 4 teacher and Department Chair **or** placement exam.. .***Note: Students who have completed Bay's language requirement may sign up for one or both semesters. Students who took Advanced Topics C/D in the 2024-25 school year can sign up for this course for 2025-26.**

Spanish for Spanish Speakers 1A/1B
Spanish for Spanish Speakers 1 (SSS 1) is a two-semester course designed for students (1) for whom Spanish is their home/family language, (2) who were raised in a Spanish-speaking environment and possess proficient listening comprehension skills but may not have had extensive formal classroom instruction in the language, or (3) who have experienced full immersion for an extended period of time. The primary goal of this course is to build on and expand students' existing knowledge of Spanish while developing skills for using the language in academic contexts. This course also takes into account and validates the experiences and influences of bilingual/multilingual and bicultural/multicultural upbringing or education. In this course, students develop their communicative abilities, both verbal and written, by engaging with authentic resources to explore the themes of identity, language, family, expectations, and traditions. **Prerequisite:** Student's self-identification as a conversational Spanish speaker and interview with a Bay Spanish teacher.

Spanish for Spanish Speakers 2A/2B
Spanish for Spanish Speakers 2 (SSS 2) is a two-semester course and a continuation of SSS 1. In this course, students increase their awareness of the richness and diversity of the Spanish-speaking world through exposure to authentic literary and cultural readings, as well as audio and video materials and artwork. Through their study of these materials, students further develop their literacy and comprehension of Spanish. In addition, students improve their writing skills by composing personal essays and technical writing assignments such as proposals and emails. They also improve their speaking skills by completing a variety of interpersonal and presentational speaking tasks. Finally, through their work in this class, students sharpen their grammatical skills and spelling in order to communicate with increased accuracy and fluency.
Prerequisite: Spanish for Spanish Speakers 1

Spanish for Spanish Speakers 3A/3B (Honors)
Spanish for Spanish Speakers 3 is a two-semester course and a continuation of SSS 2. In this course, students will deepen their knowledge of Latin American and Spanish history and literature through authentic text, art, audio, and video materials. Students will sharpen their formal writing proficiency by composing persuasive and/or critical essays and research papers. Students will continue to develop an academic language through individual and collaborative presentations, in-class discussions, debates, and Socratic seminars. [This course is an Honors course; see Honors information for details.] **Prerequisite:** Spanish for Spanish Speakers 2

Honors Course Information

Honors courses demonstrate distinctive features that set them apart from regular high school courses. All honors courses offer content and/or experience that is demonstrably more challenging than general level high school classes. **It is important to note that the work in honors courses is distinctly different from regular courses and therefore strong grades in foundational courses do not necessarily equate to readiness for honors courses.** The work in honors classes demands:

- An earnest desire to seek challenge, which can, at times, feels discomforting.
- A comprehensive understanding of foundational work that allows students to build on that knowledge without review of it.
- A complexity of thinking that requires students to incorporate a wide range of evidence, points of view, temporal and geographic understandings, and a nuanced understanding of cause and effect.
- An advanced ability for critical analysis and interpretation of written texts, data sets, and evidence.
- A higher load of reading and writing in order to build and demonstrate understanding.
- A greater level of independence and responsibility for one's own learning, rather than relying on the transmission model of teacher-centered learning.
- A comprehensive final examination or a substantive, culminating project/assessment designed to exhibit depth of knowledge and sustained mastery of subject material gained from the course.
- A willingness to focus on growth and improvement, rather than on grades, as prior strong grades do not guarantee equally strong grades in Honors-level courses.

Students are good candidates for honors courses if they have a deep interest in a subject area, a solid grounding in the content and skills covered in the prerequisite classes, and have developed the academic habits to engage with ideas in multifaceted ways. Students interested in pursuing an honors course should discuss their readiness with their current teacher(s) and their advisor during the course advising period.

Honors Limits

11th graders may enroll in no more than 4 total semester-length Honors courses. 12th graders may enroll in no more than 6 total semester-length Honors courses. Requesting an honors course does not guarantee a student's placement in that course. Placement is based on seat availability and other scheduling considerations.

While many colleges and universities do "weight" GPAs in Honors courses, Bay will not include a weighted GPA on a student's transcript.

Add/Drop Period & Process

Schedule Changes
Building the master schedule at Bay is a complicated process that factors in a tremendous number of variables—including course offerings, class and classroom size, gender balance, and collaborative work time for teachers of team-taught courses. Students are encouraged to take the schedule planning process seriously each spring and work closely with their advisors and parents/guardians at home to select their courses. We rarely make schedule changes during the year and ask that you carefully read this section before requesting a schedule change.

Placement Tests
New students to Bay are placed into math and world language classes using information from the student's application file as well as a placement test taken at Bay the spring before they matriculate. Occasionally, students are placed in the incorrect level of a math or language course. If a student feels they have been misplaced, they should talk with their teacher and advisor right away. When needed, we must make these changes as early in the term as possible.

Scheduling Errors
Occasionally, we do make mistakes in scheduling a student's courses. When you receive your schedule in the summer, review it carefully. If you find an error (for example, you're a 10th grader scheduled into Senior Projects), please contact the registrar as soon as possible and at least one week prior to the day school starts in August.

Elective Preference
If a student decides they want to change an elective course, this must be done before the beginning of the semester and will be granted only if space is available in the class. **Course preference changes will not be made after the end of the second week of a semester course, or after the first day of an immersive course.** In order to support the college admissions process, 12th graders must have approval of College Counseling to make any course changes.

Academic Load Changes in Semester Electives
Occasionally we can make changes for students to address academic loads in a single given semester—for example, a junior who signs up for three single-term honors courses and finds that they are enrolled in all three of them in the fall semester. Students seeking a change for this reason should contact the Academic Office. These changes should be completed before the school year begins.

Teacher Preference
At Bay, we do not make student course change requests based on teacher preference. We honor and respect that each student has their own learning style, and we also believe deeply in supporting the development of interpersonal skills and learning to work with a diversity of people. Our teachers strive to be very responsive to feedback, but teachers cannot address issues unless they are aware of them. As part of their education, we encourage students to self-advocate by sharing concerns with their teacher, advisor, class dean, or other trusted Bay staffulty member.

An exception to the teacher preference guidelines is when a student is randomly assigned to have the same teacher for four consecutive semesters. For example, a 10th grade student takes Math 2a and 2b with Mr. Jones; when they receive their 11th-grade schedule, they are enrolled in both Math 3a and 3b with Mr. Jones. If this occurs and students would like to diversify their teaching exposure, the

Academic Office, when possible, will change the student's placement in one of the two Math 3 courses. Students must make this request before the beginning of the school year.

Frequently Asked Questions

May I fulfill my World Languages graduation requirement by taking both Spanish and Mandarin?
Bay celebrates students who choose to take both Spanish and Mandarin; we do, however, require that students complete at least three years of a single language (Spanish or Mandarin) in order to meet our graduation requirement. (Students who are placed into Mandarin 5 will complete the graduation requirement in 2 years, with Mandarin 5 and Advanced Topics in Mandarin.)

May I sign up for only the first semester, or part A, of a two-semester course like Spanish or Mandarin?
Yes. As long as doing so does not compromise the student's completion of graduation requirements, the student may sign up for only part A if they so choose.

- Rising 12th graders may sign up for part A without part B of a language at or above level 4
- We recommend that students take both halves of a course in order to get the full learning experience.
- You cannot take only the first semester of other full-year courses, such as math and science courses.

How do I decide whether to sign up for Honors courses?
Honors courses provide students the opportunity to study a topic in-depth, with a high degree of challenge and intensity. The decision to enroll in one or more Honors courses is not one to be taken lightly. We recommend that you have an honest conversation with your current teacher in the subject area, consult with your advisor, and talk to Learning Services (if applicable). These people know you and know the curriculum; they can provide valuable insight into whether an honors course is the right choice for you. Please see Honors Information for more details.

May I use the summer to take an outside math course and potentially advance my math track?
For students interested in finding ways to do additional coursework in math, summer study can be a way to do so. Because of Bay's unique integrated math curriculum, the only courses suitable for replacement by summer study are Analysis of Functions (replaced by a precalculus course that includes trigonometry) or Calculus. Please see this document for more information. Interested students should reach out to Math Department Chair, Parul Khare, for more detailed information and timelines. Students can only use summer work to accelerate **one** math level during their time at Bay because crucial non-content skills are built in each Bay math class.

May I use the summer to take an outside science course?
Rising 11th graders pursuing Biology 2 (Honors) for their 11th-grade year are required to successfully complete a Biology 1 equivalent in the summer directly preceding their 11th-grade year. Please see the Biology 2 (Honors) course description, the Biology 2 timeline document, the Biology 2 contract, and the Bay Biology Student Guide for details. Note that students who have successfully completed Bay's Biology 1 during their 11th-grade year may also pursue Biology 2 (Honors) as a 12th grader without additional summer coursework. Students should reach out to the Science Department Chair, Julie Spector-Sprague, if they have further questions.

What options do 9th and 10th graders have for their elective block during the semester rotation?
9th graders may choose any introductory (1A) Arts course for their elective block. 10th graders may continue their work in Arts with Art 1B, begin a new Arts sequence with Art 1A, or may enroll in a Computer Science course. Prior to graduation, all students must complete an A/B sequence in arts.

May I sign up for a May immersive during my 12th grade year?
The May immersive term takes place after graduation; most 12th graders do not take a May immersive course. Students interested in taking a May immersive course as a 12th grader must complete the Immersive 2 Application.

May I choose what terms I will have certain courses to "balance out" my schedule?
No. Because Bay offers so many unique and specialized courses, our scheduling process is quite complex. Often, elective courses are only offered in one of the two terms. This means we are unable to allow students to select the term in which a given course will appear on their schedule. Students should, therefore, be prepared for occasional imbalances in their schedule, such as a term with multiple reading- and writing-intensive courses or a term with multiple math and science courses. When signing up for courses, students should keep in mind that any five of the elective courses for which they sign up might occur in a single semester.

Am I allowed to sign up for a course I've already taken?
The only courses that students may retake for Bay graduation credit are Jazz 2 (Honors) and Advanced Drawing and Painting Studio (Honors). If you wish to retake either of these courses, you must receive approval from the Academic Dean before the end of the course selection period on February 23. By retaking a course, a student may be ineligible to apply to California State Universities. Students should discuss this option with their college counselor before signing up.

Who gets preference in the scheduling process?
Rising 12th graders receive preference in the scheduling process; however, we are not able to guarantee any student, regardless of grade level, every top-choice course. We do our best to enroll every student in as many of their top-choice courses as we can.

Will all of the courses in the catalog actually take place next year?
Occasionally, a course must be canceled because it failed to draw enough student interest or because Bay's staffing configuration has changed. This is rare. We work as hard as we can to avoid it, but it does occur from time to time. If it does happen, we will make every effort to place you in your second-choice class.

Am I allowed to change my schedule?
We strongly recommend that all course changes be finalized prior to the start of the term in which those changes will occur. Please also note that Bay does not make schedule changes based on preference for a given teacher or preference related to the timing (block or term) of a certain course. For more information about schedule changes, please see the Student and Family Handbook.

What if I don't get into a class because it is full?
Although we work as hard as we can to place students into their top-choice classes, students are required to list alternates for all top-choice elective courses in the event that a course becomes full. If you are not placed into your top-choice course, you may request to be placed on the waitlist, and we will contact you should a seat become available in the class. Instructions for how to get on the waitlist for a class will be shared when schedules are published in early summer.

What other courses will appear on my schedule?
In addition to courses listed above, all students take supplementary co-curricular courses. 9th graders are enrolled in 9th-Grade Seminar; this course meets once per week during the student's

flex block. 10th graders are enrolled in Choices in Relationship; this course meets once per week during the student's flex block for one semester. 11th graders take Bay's college counseling course during their free block in the second semester. 12th graders take Bay's College Counseling course during their free block in the first semester.

Where do I go if I have more questions?
If you have more questions, please contact your advisor. If they are unable to answer your question, please contact the Academic Office at academics@bayschoolsf.org.