

# Boston Collegiate Charter School

## High School Course Catalog 2018-2019



11 Mayhew Street · Dorchester, MA 02125



## Boston Collegiate Charter School

### High School Course Catalogue

2018-2019

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#### OUR MISSION

The mission of Boston Collegiate Charter School is to prepare each student for college. In order to achieve this goal we have three pillars: 1) a structured and safe academic environment, 2) high academic and behavioral expectations combined with significant support, and 3) exceptional teachers.

#### SCHOOL VALUES

The BCCS community works tirelessly to embody the ideals of MAPP: Mindful, Achieving, Professional, and Persevering. It is our vision that after four years of a rigorous college prep curriculum, a graduate of BCCS will be: a scholar who meets the standards of a rigorous curriculum, a citizen who takes advantage of the resources of the Greater Boston area, an individual who is an active and involved member of the community, a person prepared for the future, and a lifelong learner.

## GRADUATION REQUIREMENTS

BCCS offers a rigorous college-preparatory curriculum that fosters both college readiness and independence. Graduation requirements include:

### Core courses

- 4 years of English
- 4 years of Math
- 3.5 years of Science
- 3.5 years of History
- 3 years of World Language
- 2 additional years of some combination of Advanced Art, World Language, English, History, Science and Math in the senior year

### Electives

- 4 years of Physical education
- 3 years of Art
- 4 years of Collegiate Skills

### Other

- 80 hours of community service
- Completion of two week junior internship
- Acceptance into a four year college or university

## COURSE SELECTION

At Boston Collegiate students also have the opportunity to select among a variety of Advanced Placement (AP), Honors (H), or College Preparatory (CP) courses. Our teachers, college counselors, administrators, and older students can all be helpful in making course decisions and students should ask questions and seek guidance. Most Honors and Advanced Placement courses require approval from the department, and students should consult subject area teachers in determining eligibility. Students are able to move among CP, H and AP courses throughout their high school careers.

## ART DEPARTMENT

The BCCS art room provides a space to learn about cultures from around the world through the process of creating art. The curriculum includes a variety of 2D and 3D media designed with educating the whole student in mind. Students will develop an expertise in areas that relate to real-world processes like engineering with intellectual development in observation and problem solving, analyses, data collection, concept building, intelligent design and critique. Our arts courses offer opportunities in collaborative community projects and department events such as the annual Art Auction.

### Studio Art I

Grade 9

Semester course, 4 meetings/week

0660

This foundation of Visual Arts course is designed for students to study the elements of art and the principles of design as they relate to specific 2-D and 3-D applications of media, techniques, and processes. Students will research and study visual images from various artists, cultures, historic time periods and process and discuss the characteristics of these images as they pertain to their own works and the works of others. We will draw inspiration from observation, imagination, and research. Students will be encouraged to use their personal experiences and research to design original works. Students will chronicle their ideas through sketches and writing. Students will be involved in group assessment of classmates' completed works and works in progress and are required to exhibit selected products in school and community exhibits.

### Studio Art 2

Grade 10

Semester course, 4 meetings/week

0663

Studio Art II is designed for students to study the elements of art and the principals of design and color theory as they relate to specific 2-D and 3-D applications of media, techniques, and processes. Students will research and study visual images from various cultures, historic time periods and process and discuss the characteristics of these images as they pertain to their own works and the works of others. We will draw inspiration from observation, imagination, and research. Students will be encouraged to use their personal experiences and research to design original works. Using a personal journal, students will chronicle their ideas through sketches and writing. Students will be involved in group assessment of classmates' completed works and works in progress and are required to exhibit selected products in school and community exhibits.

## Art Electives

Grade 11

Semester courses, 2 meetings/week

In their junior year, students will have the opportunity to select two art electives from not only the visual arts, but also music and the performing arts.

### Mural Painting and Street Art

This is a course that is devoted to designing, drawing and painting murals for school and creating objects for community presentation. Historical and stylistic techniques for mural painting and street art will be covered and a number of painting media and non traditional materials will be employed. Students taking this course must be willing to have their work exhibited in public spaces.

### Sculpture

Students will experience 3-dimensional design and visual problem solving through the exploration of diverse materials, themes and techniques. Possible mediums include: Clay, Mosaics, Wire, Cardboard, Found Objects, Plaster, Books and Wood. Student will have the opportunity to work realistically, as well as abstractly and explore carving, casting and constructing.

### Drawing

Students will continue to work on technical skills and explore a wide range of approaches to the medium. Study of perspective, visual measurement, portraiture, mark and value making, and a wide range of materials will occur. Students will be encouraged to experiment and go beyond representation to focus on creative expression and investigate a wide range of contemporary issues and themes.

### Acting

This course introduces students to the fundamental theories and techniques of acting. Students will explore this art form through both text-based performance work and improvisations. Focus will be placed on developing the ability to analyze scripts, and on translating these analyses into rich, playable actions on stage. Students will prepare performances of selected monologues and scenes as the culmination of their work throughout the semester. Through these performances, students will learn to develop a character, build stage presence, engage in artistic collaboration, and embrace creative risk taking

### Music

This course will combine an introduction to the science of sound and sound transmission with the artistic principles of music creation. Students will learn the fundamentals of acoustics and how they apply to the production of both acoustic and electronic music. Students will come away with a broad overview of the history of recorded music and how technology has changed the way we engage with sound. They will work hands-on with both software and hardware, including but not limited to digital audio workstations, sequencers, and drum machines, with the aim of creating their own musical compositions. We will connect these concepts to the 21st century legal and ethical issues of digital music creation, sharing, distribution and consumption. No prior musical experience is needed.

## Advanced Art CP

Grade 12

Full Year, 5 meetings/week

0507

Advanced Art builds on the skills gained in drawing from life, both figure and landscape, understanding basic elements of design (composition, balance, proportion, and color) and a familiarity with a variety of art mediums. Students will continue to strengthen their 2-D and 3-D skills, explore the relationships between 2-D and 3-D, and begin to think critically about their own work as well as critique work from other artists. Students will develop an advanced knowledge of a variety of media and techniques. Students who elect to take this course must be self-motivated and self-directed as well as cooperative, responsible art students. Students should be comfortable working independently, analyzing and interpreting art works in relation to form, context, and purpose, and using additional resources and research to enhance their skills. Students will develop a dynamic portfolio of at least 8 pieces of work reflective of their mastery of skills, their understanding of the elements of visual communication, and their ability to express their ideas and creativity through the medium. The Advanced Art curriculum includes regular homework assignments, in class Art History assignments and periodic written assessments. Students should be able to produce work incorporating visual elements to the best of their ability and appropriate for exhibition at the end of the year.

## COLLEGIATE SKILLS

Every BCCS student is required to master our Collegiate Skills Program, which is a four year curriculum targeting supplementary topics and soft skills we have found critical to preparing students for college and career success. The course sequence focuses on demonstrating the connection between high school and post-high school options, while guiding and supporting students through a process of self-discovery and career exploration, culminating in the real world experience of an off-site internship in the junior year. The final year and a half utilizes the interpersonal growth and insights of each student to inform the college search and application process and then focuses on pertinent topics to ease the initial transition to life after BCCS. The particular content and means of instruction in these courses are facile, and are continually modified in real time to reflect the current reality of the college and career landscape as well as address the unique needs and interests of the particular cohort of students in each class.

### Collegiate Skills: Pathways and Possibilities

Grade 9  
Semester course, 2 meetings/week  
0661

The goal of Pathways is to help cement the connection that success in high school can lead to future opportunities. Although students spend time investigating many options available to them after high school, the bulk of the course focuses on college. Students learn about different factors that can influence a student's college choice and are introduced to resources available to them. The college admissions process is demystified as each piece of their future applications is discussed in detail, including transcripts and GPA, standardized testing, and extracurricular activities. Particular attention is paid to the college essay, and the StoryCorpsU curriculum is used to help the students grow in their self-awareness and ability to tell compelling and illustrative stories from their lives.

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### Collegiate Skills: My Path

Grade 10  
Semester course, 2 meetings/week  
0664

My Path begins to cement the connection between interests, college, and careers. Students enrolled in My Path will explore their personal character traits and their creative skillset and begin to connect their interests with possible career paths. Students focus on college and career connections through job shadow days, observations of junior internship presentations, and guest lectures from local professionals. Lastly, students reflect on their growth in a public presentation of their likes, dislikes, possible internship options, possible college options, and potential careers to which this path could lead.

### Collegiate Skills: Junior Seminar

Grade 11  
Full Year, 2 meetings/week  
0513

This course is designed to further prepare students for the world ahead. By the end of the year, students will have participated in an internship, prepared for the SAT and ACT, and actively begun the college process. The first half of the Junior Seminar is spent preparing for a two-week off-site internship. Students must prove proficiency in necessary professional skills such as interviewing, resume writing, cover letter creation, and professional emails and phone messages. After completing this preparation, students spend two weeks in January off-site at a school-approved internship. Upon returning from the internship program, students engage in SAT and ACT preparation. By the end of the school year, students will begin their college search and will start the application process.

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### Collegiate Skills: Senior Seminar

Grade 12  
Full Year, 2 meetings/week  
0514

The Senior Seminar emphasizes our mission to graduate responsible, prepared, engaged students who will successfully transition to college and the world beyond with knowledge of future expectations and challenges. Small group and individualized help is provided in the first half of the year to guide seniors through the college application process. BCCS has partnered with uAspire to provide financial aid support and counseling as well. Financial literacy programming is facilitated in Senior Seminar. Lastly, the students end the year working directly with our Director of Alumni Programming and participate in discussions on topics related to college transition, such as course registration, navigating a roommate, and campus involvement.

## ENGLISH DEPARTMENT

The English Department is designed to provide students with a rigorous program of studies through examinations of various genres of text as well as expository and narrative writing. Through the study of both classic and contemporary texts, students will be able to make connections between their own lives and the lives of others as they examine each author's literary merit. Students will work to hone their writing skills, with a focus on revision, editing, and voice, in preparation for college. In addition, students will develop their speaking and listening skills by engaging in a variety of class conversations that require students to contribute accurate, relevant and compelling information, support claims with evidence and reasoning, and respond to the ideas of others.

### English 9

Grade 9  
Full Year, 5 meetings/week  
0008

Students will apply critical reading, writing, and thinking skills to five fundamental genres: short stories, novels, nonfiction, poems, and plays. Students learn to identify characteristics of these genres and identify elements of fiction and literature including setting, theme, plot, symbolism, point of view, foreshadowing and irony. Students develop both their creative and expository writing skills through a variety of writing assignments, both formal and informal, including a major research paper. Students also practice and master editing techniques and apply them to their writing. In addition, students work to hone their public speaking skills through recitations and presentations. Finally, students develop reading comprehension, vocabulary and grammar skills and apply these skills to their assignments.

### English 10

Grade 10  
Full Year, 5 meetings/week  
0006

In this course, students will continue to explore a variety of works, applying critical reading, writing, and thinking skills to five fundamental genres: short stories, novels, nonfiction, poems, and plays. This course is arranged with a focus on classic texts and characters' convictions. Students continue to identify and analyze literary elements while developing both their creative and expository writing skills through a variety of writing assignments, both formal and informal. Students also practice and master editing techniques and apply them to their writing. Students continue to develop public speaking skills through recitations and presentations. Finally, students develop their vocabulary, critical reading, and analytical writing skills with the MCAS examination in mind. Students will become adept at implementing standardized test-taking strategies through practice drills and sample tests, also in service of the MCAS examination.

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### Advanced Placement English Language and Composition

Grade 11  
Full Year, 5 meetings/week  
0040

The purpose of Advanced Placement Language and Composition is to help students "write effectively and confidently in their college courses across the curriculum and in their professional and personal lives." (The College Board, AP English Course Description) The College Board also states, "An AP course in English language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing." Students will recognize, appreciate, and utilize the power of English language in an effort to become capable college-level writers by the end of the school year.

## **American Literature CP**

Grade 11

Full Year, 5 meetings/week

0022

Students focus on critical thinking, reading and writing by continuing to explore five fundamental literary genres: novels, short stories, poetry, drama and nonfiction. Students will examine the literature of the United States from the mid-19th century to the present, looking in particular at the tension between the self/individual and the nation, and the attempt of the individual to define the self within an American context. Most written assignments, including homework, will be long-term in nature with a focus on revision. Reflective pieces or personal essays, creative projects such as debates and trials, and other coursework, including research, will be assigned throughout the year.

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## **Advanced Placement English Literature and Composition**

Grade 12

Full Year, 5 meetings/week

0044

Advanced Placement English Literature and Composition engages students in the careful, active reading and critical analysis of imaginative literature. Through the close reading of selected texts from a variety of genres and time periods (sixteenth to twenty-first century), students deepen their understanding of the ways writers use language to provide meaning and achieve a purpose for readers. As they read, students consider a work's structure, style and themes as well as smaller-scale elements such as the use of figurative language, imagery, symbolism and tone. Students will read widely and deeply and will be expected to interpret and evaluate literature both orally and in writing in preparation for the AP English Literature and Composition exam. Writing is an integral part of the course and the AP exam; the writing that students produce is designed to reinforce their reading, and the reading and writing assignments are designed to stimulate and support each other. Writing assignments focus on the critical analysis of literature and include expository, analytical and argumentative essays. Writing instruction includes attention to developing and organizing ideas in clear, coherent and persuasive language.

## **Senior Seminar: Dystopian Literature CP**

Grade 12

Semester courses, 5 meetings/week

0070

In this course, students will study texts from across the globe in order to explore their own identity, while exploring the central theme of an individual's role in society and responsibilities to his or her fellow citizen. Though our primary texts are works of fiction, students will supplement this reading with nonfiction pieces as they address current events in the political, scientific and technological communities that could contribute to the dystopian worlds that we read about. This course includes film and text pairings and written analysis, as well as student-driven discussions and presentations. This course has been designed with an eye toward college readiness, so that students are prepared for the rigor and personal responsibility needed to be successful in college courses.

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## **Senior Seminar: Madness in Literature CP**

Grade 12

Semester courses, 5 meetings/week

0071

In this course, students will study both fiction and nonfiction texts that explore the self and sanity, while also addressing issues of author purpose, intent and style. This course includes film and text pairings and written analysis, as well as student-driven discussions and presentations. In addition, students will supplement our primary texts with shorter works of fiction, poetry, and essays. This course has been designed with an eye toward college readiness, so that students are prepared for the rigor and personal responsibility needed to be successful in college courses.

## Senior Seminar: Theater and Social Change CP

Grade 12

Semester courses, 5 meetings/week

0074

Theatre is a means of communication, a vehicle for self and community exploration, and a tool for civic engagement. It can also be a tactic of resistance and a site of revolution. This course examines works of dramatic literature and theories of performance crafted to promote social justice, and explores the means through which they attempt to spark substantive, sustainable, and often radical change. By reading, viewing, discussing, researching, and creating works of social and political theatre, students will grapple with the question of how performance can disrupt oppressive systems in order to combat injustice. In addition, students will continue to build upon their writing skills by crafting a variety of written work. This may include, but is not limited to, analytical essays, close textual analysis, and creative writing assessments. Once again, this course has been designed with an eye toward college readiness, so that students are prepared for the rigor and personal responsibility needed to be successful in college courses.

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## General English 9/10/11/12 CP

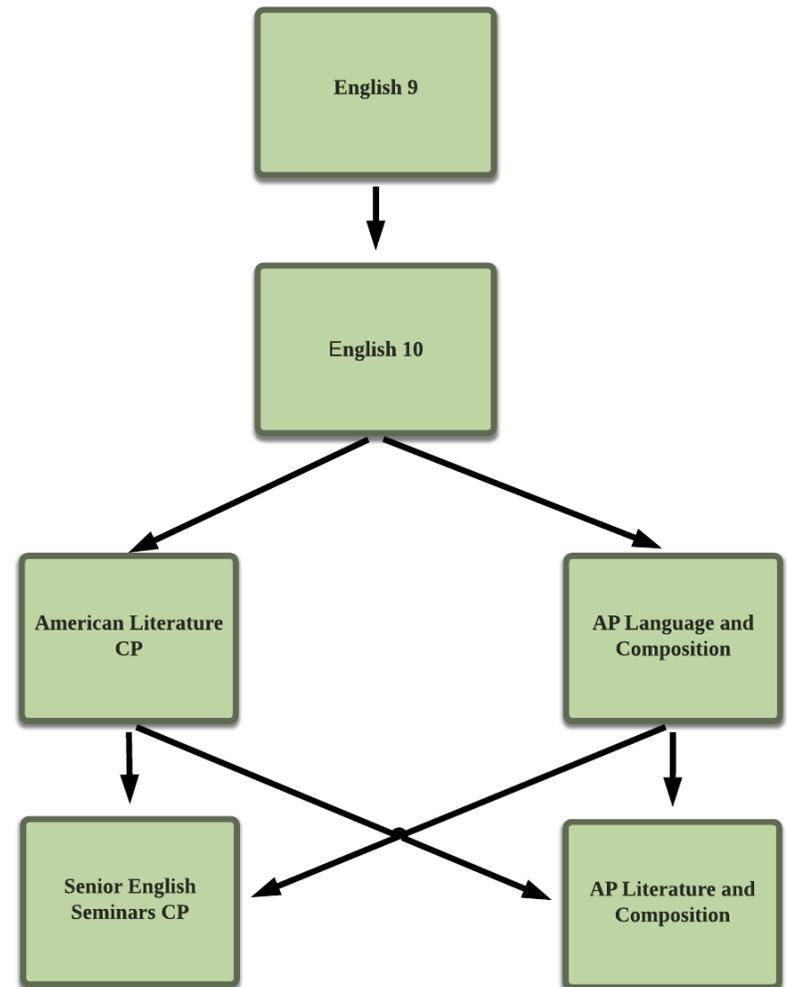
Grades 9-12

Full Year, 5 meetings/week

0066/0067/0068/0069

Though a study of novels, short stories and poems students will work both collaboratively and independently to improve their reading and writing as well as their study skills. Students will also work to become more comfortable with the writing process, with a focus on drafting, revising and editing formal literary analysis. Placement in this class is determined by the department.

## English Course Pathways



## HISTORY DEPARTMENT

The purpose of the History Department is to provide students with a rigorous curriculum designed to augment student understanding of national and global histories and cultures. Department offerings include a core of required global and American history courses, which intertwine political, economic, and social history to create a narrative of the world we live in today. Additionally, the department helps students become historians themselves, with an emphasis on research and delivery of research through creation of argumentative essays and performance-based assessments. Through the study of history and the emphasis on research, the department works to foster intellectual curiosity, authentic engagement, and depth of knowledge so that Boston Collegiate students become global citizens.

### Global Studies CP

Grade 9  
Full Year, 5 meetings/week  
0324

Global Studies B is the second year of a two-year course study. It examines world events from the beginning of time through modern day. In the first year, students explore the continents of Africa, Asia, and Latin America. In its second year, students explore the Middle East, Eastern Europe, including the former Soviet Union, and Western Europe from the fall of the Roman Empire to the present day. Students will study critical developments in society, technology, and science to gain a deeper understanding of the world we live in today.

### US History CP

Grade 10  
Full Year, 5 meetings/week  
0323

This course is the first year of a two-year US History sequence. The 10th Grade US History class will focus on the United States, primarily from colonization through the mid-nineteenth century. Students will need to assess and analyze both primary and secondary resources, incorporate current events, research and write persuasively and analytically about historical events and questions, and articulate their points of view in discussions and debates. Lastly, students will regularly be asked to connect their learning to current events and the history, geography, and culture of the city of Boston.

### US History II CP

Grade 11  
Full Year, 5 meetings/week  
0303

The 11th Grade US History class will focus on the United States, primarily from the middle of the 19th century to the present day. Students will need to assess and analyze both primary and secondary resources, incorporate current events, research and write persuasively and analytically about historical events and questions, and articulate their points of view in discussions and debates. The course is intentionally designed to mirror features of college seminar and lecture classes in order to prepare students for success after BCCS. It also requires students to actively engage in their learning through projects and exhibitions of their individual and collective work.

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### Advanced Placement United States History

Grade 11  
Full Year, 5 meetings/week  
0325

This AP course is a rigorous, comprehensive course designed "to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. History." (The College Board, AP United States History Course Description). The College Board also explains that the class "prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials-their relevance to a given interpretive problem, reliability, and importance-and to weigh the evidence and interpretations presented in historical scholarship." Students will spend the year assessing and analyzing U.S. history to grow as historical, as well as college-ready, scholars.

## Democracy in America CP

Grade 12

Semester course, 5 meetings/week

0333

Today we often hear that American democracy is broken: but what does a healthy democracy look like? How has American democratic governance functioned in the past, and how has it changed over time? This course approaches American history with these questions in mind. Based on the case method, each short reading will introduce students to a different critical episode in the development of American democracy, from the drafting of the Constitution to contemporary fights over same-sex marriage. The discussion-based classes will encourage students to challenge each other's assumptions about democratic values and practices, and draw their own conclusions about what "democracy" means in America. This course will introduce students to the political and economic theories and practices needed to make sense of current national and international issues and events, thereby practicing the habits necessary for citizenship in the 21<sup>st</sup> century.

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## The Ultimate Quagmire: The "Making" of the Modern Middle East CP

Grade 12

Semester course, 5 meetings/week

0334

This semester-based course aims to untangle the quagmire of the Modern Middle East. One of the most complicated regions of the world, it has embroiled many nations into wars based on religion, oil, and shifting borders due to foreign and domestic disputes. This course seeks to examine how the Middle East came to be such a quagmire, from the fall of the Ottoman Empire, through treaties crafted by international powers, to the internal civil wars over territory and borders. The course will have a regional structure, focusing on the Arab-Israeli conflict; revolution and nuclear proliferation in Iran; civil war and refugee crises in Syria; the rise of ISIS in Syria and Iraq; and the unstable governments of Iraq and Afghanistan. Through the course, students assess the following questions: why is the Middle East region considered a quagmire?; to what extent have foreign powers created, or solved, problems in the Middle East?; and how do religion, economics, and politics collide to create the combustible modern Middle East?

## Race, Identity, and Equity in America

Grade 12

Semester course, 5 meetings/week

0335

Black people have been enslaved longer in America than they have been free. With the passage of the Thirteenth Amendment in 1865, approximately ninety years of Jim Crow and other racial discriminatory laws followed. Today, due to the successes of the Civil Rights Movement, many people believe that we live or can live in a post-racial, colorblind America, and that the sins of the past are behind us. However, racial inequalities do still exist today. Through four components—identity exploration, analysis of historic and modern American society, a dissection of multiple readings discussing the intellectual foundations of race, and a community-based end of year project—students will develop a nuanced understanding of the world in which they live, in preparation for life after Boston Collegiate. By exploring and addressing racial inequities that still exist today, participants in this class will graduate better prepared to fight on behalf of social justice. Essential text authors include Ta-Nehisi Coates, Malcolm X, Maya Angelou, Carter G. Woodson, and Barack Obama, among many others.

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## Advanced Placement Government

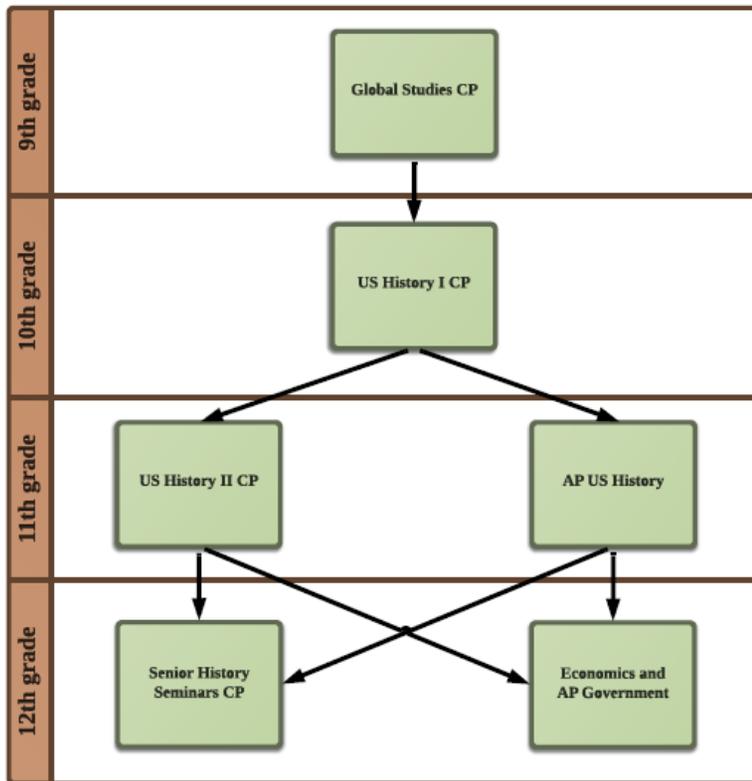
Grade 12

Full Year, 5 meetings/week

0332

The AP Government class will similarly introduce students to the political and economic theories and practices needed to make sense of current national and international issues and events. The Advanced Placement Government component dives into government and politics within the United States. Students will study general concepts used to interpret U.S. government, as well as analyze specific examples. As a result of this course, students will know important facts and theories relating to U.S. government politics; understand general patterns of political processes and behavior and their consequences; analyze and interpret data relevant to U.S. government; and critically analyze relevant theories and concepts. Students who take this course are expected to take the A.P. American Government exam in May.

## History Course Pathways



## MATH DEPARTMENT

The Mathematics Department offers a comprehensive four-year mathematics program whose goal is to enable all students to reach high standards and their full potential in a supportive, academically rigorous environment. We seek to engage students in meaningful mathematics that stimulates curiosity and enjoyment, while providing a balance between skill development and conceptual understanding. Graphing calculators are used as tools throughout all courses and are required. Throughout our curriculum, we emphasize these eight Mathematical Practices identified in the Common Core State Standards and the Massachusetts Curriculum Framework for Mathematics:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

### Integrated Math I, II & III

Grade 9

Full Year, 5 meetings/week  
0110, 0111, 0112

Starting during the 18-19 school year, the BCCS math department will be switching from a traditional model to an integrated pathway in the 8-10 program. Instead of taking a year of Algebra I, Geometry, and Algebra II, students will take Integrated Math I, Math II, and Math III that each explore topics of number sense, algebra, geometry, probability, and statistics. The goal is for topics to be less disjointed and for students to use aspects of different disciplines when necessary, as they would in the real world. Students will see the strands running through our math curriculum with greater clarity and have more consistent exposure to different fields of mathematics. Students will emerge from these three courses prepared to take Pre-Calculus, AP Statistics, Quantitative Reasoning, and Computer Science.

## Geometry CP

Grade 10  
Full Year, 5 meetings/week  
0105

Euclidean Geometry is the mathematics of the properties, measurement, and relationships of points, lines, angles, surfaces, and solids. Students will work with geometric properties and relationships in each of the one, two, and three dimensions. We will learn many properties by discovery. We will construct figures and use symmetry and transformations to solve problems. Students will also use two column proofs to strengthen their reasoning skills.

Prerequisite: Algebra I

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## Algebra II & Trigonometry CP

Grade 10 or 11  
Full Year, 5 meetings/week  
0104

Students broaden and deepen their knowledge of functions to include higher-order polynomial, rational, radical, exponential logarithmic, and trigonometric functions. Students represent these functions numerically, graphically, algebraically, and with words. The relationship between these equivalent forms is a big idea of the course. The other focus of the course is using these functions to model problems that arise in everyday life and to solve application problems.

Prerequisite: Geometry

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## Pre-Calculus H

Grade 11 or 12  
Full Year, 5 meetings/week  
0128

This class is an intense survey of the properties and characteristics of functions. The first semester examines polynomial, rational, radical, exponential, and logarithmic functions. Will end the semester with a capstone modeling project. During the second semester, we study trigonometric functions and identities and will close the year with a culminating project. Throughout the year, we will strive to develop a deep understanding of these topics by investigating them arithmetically (by making tables), algebraically (by working with equations), visually (by graphing), and verbally (by using these functions to model and solve problems that arise in everyday life). We also focus on communicating mathematical ideas clearly. This course moves at an accelerated pace and develops collaborative and individual problem solving skills.

Prerequisite: Algebra II or Integrated Math III

## Quantitative Reasoning CP

Grade 11 or 12  
Full Year, 5 meetings/week

The content of the course is designed to have students reason with novel situations in a creative way. The big ideas in the course will center around proportional reasoning, finding solutions, modelling, financial literacy, probability, and statistics, with purposeful use of technology when appropriate. Students will be expected to analyze similar situations and decide on an optimal approach for a challenge, recognize mathematical patterns and make conjectures based on observed numerical behavior, make decisions by analyzing mathematical models, and justify and communicate their conclusions in ways appropriate to the audience. Overall, this course develops student skills in interpreting, understanding, and using quantitative information in order to make informed and justifiable decisions as well as solve novel problems.

Prerequisite: Algebra II or Integrated Math III

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## Advanced Placement Statistics

Grade 12  
Full Year, 5 meetings/week  
0175

The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: (1) exploring data, (2) sampling and experimentation, (3) anticipating patterns and (4) making statistical inferences. Students learn how to describe patterns and departures from patterns, plan and conduct a study, explore random phenomena using probability and simulation as well as estimate population parameters through hypotheses testing. Students are required to take the AP Statistics exam in May of next year.

Prerequisite: Algebra II or Integrated Math III

## Advanced Placement Calculus AB

Grade 12  
Full Year, 6 meetings/week  
0101

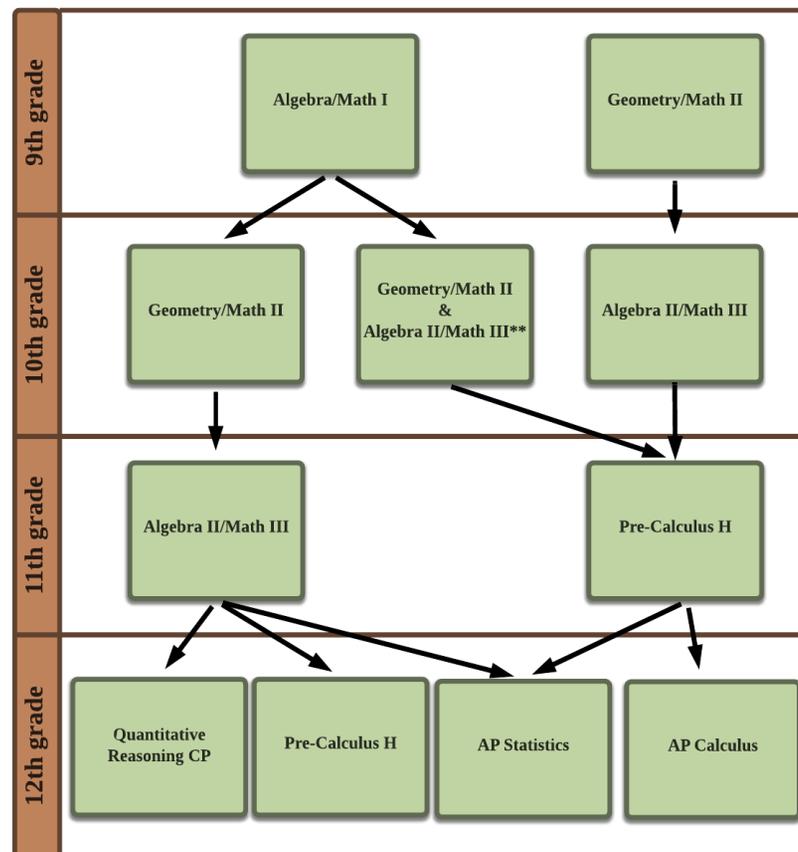
Calculus AB is a rigorous course designed to prepare students for the AP exam. There are three main topics: limits, derivatives, and integrals. Though there is a significant amount of skill work, the course emphasizes conceptual understanding and communicating mathematics verbally, graphically, algebraically, and analytically. Students are required to take the AP Calculus AB exam in May of next year. Prerequisite: Pre-Calculus H in the 11th grade

## General Math 9/10/11/12 CP

Grades 9-12  
Full Year, 5 meetings/week  
0160/0161/0162/0163

This is a bridge course for students still mastering the basic concepts of pre-algebra, algebra, and geometry in a small group setting. Placement is determined by the team.

## Math Course Pathways\*



\* The Algebra I, Geometry, and Algebra II courses are being phased out beginning with the class of 2022. They are being replaced with the Integrated Math Sequence (I, II & III).

\*\* Students who do not take Integrated Math I or Algebra in the 8th grade can eventually take AP Calculus during 12th grade by enrolling in Geometry and Algebra II (or Integrated Math II & III) concurrently during the 10th grade. There are also other Math sequences possible with the permission of the department.

## PHYSICAL EDUCATION & HEALTH

### Physical Education

The goal of physical education in the High School is to foster a healthy and active lifestyle for students both in school and at home. Students are encouraged to be active, eat healthy, and make good choices. Students in grades 9, 10 and 11 have PE class two days per week for one semester (half of the year). Students in grade 12 have PE class one day per week for the entire school year.

### Health

At BCCS, the Health Program is a four year seminar-style curriculum focusing on health topics specific to high school students. These quarter long courses serve to offer students factual health information to guide them in making educated health decisions, as well as provide a safe space for students to ask questions and have in depth health-related discussions.

Each grade level will focus on a different detailed health topic, with a class that meets once a week for one quarter a year during a Flex block. Additional standalone classes on nutrition, physical wellness, and fitness are offered during gym class in inclement weather.

Grade 9: The focus is on emotional and mental health wellness and basic first aid knowledge.

Grade 10: The focus is on sexual health, utilizing the *Get Real: Sex Education That Works* High School curriculum. Topics covered include healthy and unhealthy relationships, sexually transmitted infections, protection methods, abstinence, sexual identity, sexual risks, and a review of male and female anatomy.

Grade 11: The focus is on tobacco, alcohol, and other drug prevention. Students will learn about the harmful short- and long-term physical, psychological, and social effects of these substances, as well analyze and discuss influences and how to access resources.

Grade 12: The focus is college health and the transition as students begin to manage their own health care needs when they leave BCCS. Topics include college health resources and how to access them, positive and negative health influences on campus, and overall health maintenance after high school.

## SCIENCE DEPARTMENT

Our high school science program is designed to provide students with a logical framework to understand complex systems in the natural world through a foundation in lab based courses. The model we follow is often called “Physics First”, meaning that students learn basic principles of energy and force (Physics), followed by a study of matter and its interactions (Chemistry), and then a course in how living things interact with the world and each other (Biology). Seniors can choose between an Environmental Studies course (a discussion-based course focusing on how citizens of the U.S. and the world interact with the Earth) or AP Environmental Science (a combination of environmental issues, detailed scientific principles, and lab exercises).

### Physics CP

Grade 9

Full Year, 5 meetings/week

0205

This course will give students a foundation in conceptual physics knowledge and skills. Topics covered will include scientific thought, forces and Newtonian laws of motion, energy, work, electricity, magnetism, and waves. Students will explore the physics curriculum through daily activities and demonstrations, labs, large and small group discussions, and lectures.

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### Chemistry CP

Grade 10

Full Year, 5 meetings/week

0204

This class serves to give students a foundation in chemistry knowledge and skills. There is also a focus on chemical topics that affect students' daily lives. Students will, on average, perform one laboratory exercise per week. Class time will be spent on many different activities including: laboratory experiments and demonstrations, internet research projects, large and small group discussions, lessons and note-taking.

## **Biology CP**

Grade 11  
Full Year, 5 meetings/week  
0211

This course will provide students with an in-depth understanding in various fields of Biology, including Cell Biology, Genetics, Evolution, and Anatomy. Students will develop and enhance their skills in writing and critical thinking through laboratory investigations, group inquiry projects, and independent research projects. This course also involves a month-long rat dissection. Expectations for course work, both in and outside of class, are rigorous and require a daily commitment in order to stay current in the course.

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## **AP Biology**

Grade 11  
Full Year, 6 meetings/week  
0212

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes — energy and communication, genetics, information transfer, ecology, and interactions. Twenty-five percent of class time is devoted to hands-on laboratory work with an emphasis on inquiry-based investigations that require students to ask questions, make observations and predictions, design experiments, analyze data, and construct arguments in a collaborative setting, where they direct and monitor their progress.

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## **Environmental Studies CP**

Grade 12  
Semester course, 5 meetings/week  
0201

This course will use a college lecture approach for students to first learn the underlying concepts of environmental science, and then apply that science to issues of public policy. For each environmental issue, students will learn the underlying science concepts, and then research current and historical events. The class makes extensive use of audio and video sources. On a weekly basis, students will actively engage in student-driven, group conversations about a particular problem that must be solved. The emphasis of this aspect of class time will be placed on developing essential problem-solving, analytical, and communication skills. These skills are essential for success in college and everyday life. Students will track and present summaries of current environmental issues and events.

## **Laboratory Chemistry CP**

Grade 12  
Semester course, 5 meetings/week  
0206

This is a lab-based course intended to extend students' basic knowledge of chemistry, with the goal of preparing students for a college major in the sciences. The course will continue to cover topics only touched on in CP Chemistry, and there is a significant use of algebra in problem-solving. Topics will include: equilibria, reaction rates, electrochemistry, and separations. Expect two or three lab periods per week. Lab reports can be short form packets, or long-form research papers. Tests and quizzes will be given as well, and students will be expected to learn and demonstrate mastery of lab techniques. The final exam includes a lab practical. There is a major semester project that connects chemistry with visual arts.

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## **Computer Science CP**

Grade 12  
Semester course, 5 meetings/week  
0231

This course is designed to offer an introduction to computer science in the form of an independent study. Students will learn the basics of computer programming along with the basics of computer science. The material emphasizes computational thinking and helps develop the ability to solve complex problems. This course will be taught through the format of an online course and is entirely student directed. The course will consist of video lectures, daily programming exercises, longer coding assignments, and regular quizzes, projects and exams. Students will also participate in online discussion forums. A BCCS teacher is available for help with course materials.

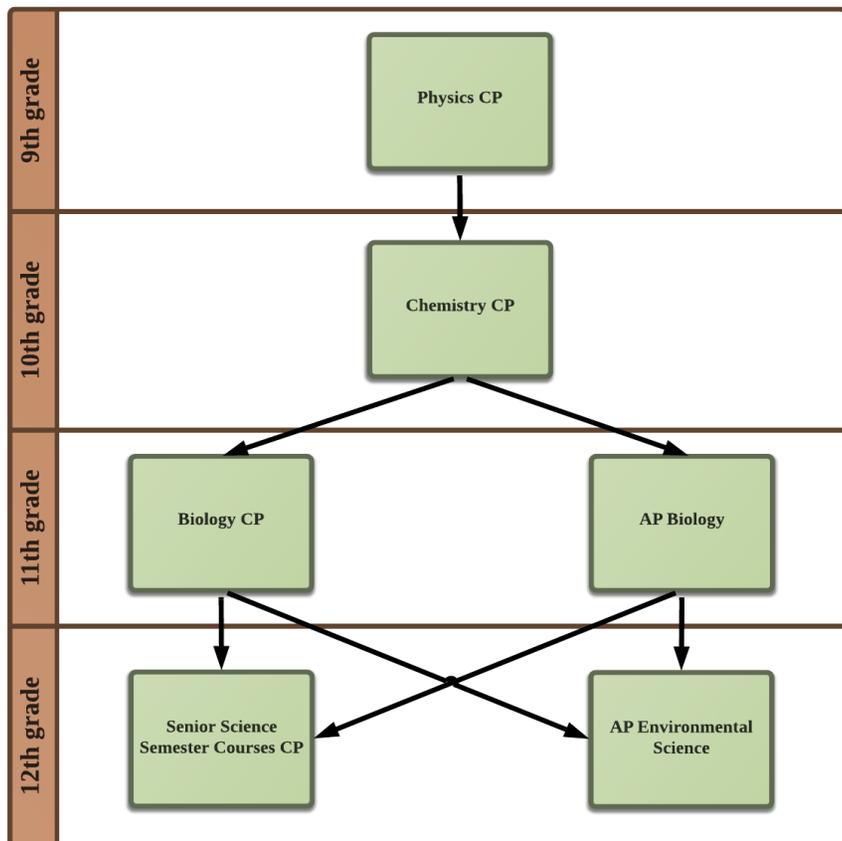
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## **Advanced Placement Environmental Science**

Grade 12  
Full Year, 6 meetings/week  
0224

This course will combine a college-level study of ecology and environmental issues with advanced lab exercise and field study. The course will consist of regular lecture, weekly labs, and regular field activities in the environment near the school. Expect to meet six periods per week, plus one hour per week after school, plus a few Saturday classes spread out over the year. Students will be expected to learn the material taught in the Environmental Studies class, as well as the relevant material to the college-level labs. Most of these labs focus on chemistry. Students enrolled in this course will take the AP Environmental Science Test in May, which may make them eligible for college credit.

## Science Course Pathways



## WORLD LANGUAGE DEPARTMENT

According to the American Council on Teaching Foreign Languages, "Language and communication are at the heart of the human experience. The United States must educate students who are equipped linguistically and culturally to communicate successfully in a pluralistic American society and abroad." The BCCS World Language department embraces this philosophy wholeheartedly in our approach to teaching Spanish and French. Over the course of three to four years at BCCS, students can expect to learn how to communicate interpersonally, interpretively, and through presentational tasks in Spanish or French. Students can also expect to interact with cultural competence and understanding when it comes to our study of the Spanish and French speaking world, as our language program encourages students to use the language to investigate, explain, and reflect on the concept of culture through comparisons of the cultures studied and their own.

### French I CP

Grade 9  
Full Year, 5 meetings/week  
0410

French I will focus on speaking skills while building confidence in reading, writing, and listening comprehension. Students will participate in language and culture activities involving cooperative group work, theme projects, presentations, and role playing.

### Spanish I CP

Grade 9  
Full Year, 5 meetings/week  
0421

Spanish I will focus on speaking skills while building confidence in reading, writing, and listening comprehension. Students will participate in language and culture activities involving cooperative group work, theme projects, presentations, and role playing.

### French II CP

Grade 10  
Full Year, 5 meetings/week  
0408

In French II, students will continue to review and expand upon their skills from French I. Focus will be on increasing speaking skills while building confidence in reading, writing, and listening comprehension. Students will participate in language and culture activities involving cooperative group work, theme projects, presentations, and role playing.

### **Spanish II CP**

Grade 10  
Full Year, 5 meetings/week  
0422

In Spanish II, students will continue to review and expand upon their skills from Spanish I. Focus will be on increasing speaking skills while building confidence in reading, writing, and listening comprehension. Students will participate in language and culture activities involving cooperative group work, theme projects, presentations, and role playing.

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### **French III CP**

Grade 11  
Full Year, 5 meetings/week  
0406

In French III, students will further develop their communication skills and read a variety of literature in French. Building upon the skills acquired during the first two years of French, this class will greatly emphasize grammatical development, along with the four basic skills of speaking, listening, reading and writing. Throughout the year, students will participate in numerous proficiency-oriented activities that will encourage them to explore and appreciate cultural differences. Various media, such as French films and authentic texts are also integrated into the coursework to provide students with a solid linguistic and cultural understanding of the Francophone world.

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### **Spanish III CP**

Grade 11  
Full Year, 5 meetings/week  
0423

In Spanish III, students will further develop their communication skills and read a variety of literature in Spanish. Building upon the skills acquired during the first two years of Spanish, this class will greatly emphasize grammatical development, along with the four basic skills of speaking, listening, reading and writing. Throughout the year, students will participate in numerous proficiency-oriented activities that will encourage them to explore and appreciate cultural differences. Various media, such as Spanish films and authentic texts are also integrated into the coursework to provide students with a solid linguistic and cultural understanding of the Hispanic world.

### **French IV CP**

Grade 12  
Full Year, 5 meetings/week  
0414

In French IV, students will continue to improve fluency with French through a thematic survey of Francophone literature and culture. Each thematic unit will focus on a particular cultural topic and will be broken down further to focus on grammatical concepts. By the end of the year, students will be prepared to continue French studies at the university level and to converse on a variety of subjects in French. The specific media through which the language will be investigated are poetry, music, film, and literature. While these units will serve as the backdrop of the course, a strong emphasis will also be placed on the development of language skills necessary for the post-secondary study of French and for authentic interaction in the language.

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### **Spanish IV CP**

Grade 12  
Full Year, 5 meetings/week  
0424

In Spanish IV, students will continue to improve fluency with Spanish through a thematic survey of literature and culture from the Spanish-speaking world. Each thematic unit will focus on a particular cultural topic and will be broken down further to focus on grammatical concepts. By the end of the year, students will be prepared to continue Spanish studies at the university level and to converse on a variety of subjects in Spanish. The specific media through which the language will be investigated are short stories, poetry, music, film, and literature. While these units will serve as the backdrop for the course, a strong emphasis will also be placed on the development of language skills necessary for post-secondary study of Spanish and for authentic interaction in the language.

