



CATHEDRAL

7-12 HIGH SCHOOL • BOSTON

# Course Guide 2018-2019

Teaching Values. **Building Leaders.**

**CURRICULUM OVERVIEW** Cathedral students are engaged by an active faculty in a rigorous academic program that challenges each scholar to excel. The 6-year college preparatory course of study includes:

Middle School Offerings (all required):

- Mathematics: Numerical Literacy, Pre-Algebra, Algebra I
- English: ELA 7, ELA 8
- History & Social Sciences: History 7, History 8
- Science: General Science (7), Physical Science (8)
- Theology: Religion 7, Religion 8
- Fine Arts: Art Foundations I, Art Foundations II
- Gym: Gym 7, Gym 8

High School Offerings and Requirements

- Mathematics: required every year, must pass three courses, must pass at least Algebra I, Geometry, and Algebra II

Math Courses Offered: Pre-Algebra, Algebra I, Geometry, Algebra II, Algebra II / Pre-Calculus, Pre-Calculus, Applied Mathematics, AP Calculus

- English: required every year, must pass four courses

English Courses Offered: English I, English II, English III, English IV, AP English Language and Composition

- History & Social Sciences: required for 9th, 10th, and 11th; elective options available in 12th

History & Social Sciences Courses Offered: World History I, World History II, U.S. History, Law and Society, Global Citizenship Seminar, Women and Gender in History, The Civil Rights Movement, The History of Boston

- Science: required for 9th, 10th, and 11th; elective options available in 12th

Science Courses Offered: Chemistry, Biology, Intro to Engineering, Anatomy and Physiology, Environmental Science, Biology II

- Religion courses

Religion Courses Offered: Religion 9, Religion 10, Religion 11, Religion 12, Christian Living

- Foreign Language: two years required, at least three years highly recommended

Foreign Language Courses Offered: Spanish I, Spanish II, Spanish III, Spanish IV; French I, French II, French III, Advanced French

- College Readiness: ½ year courses required for all juniors and seniors

College Readiness Courses Offered: College Readiness 11, College Readiness 12

- Gym: ½ year courses required for all freshman and sophomores

Gym Courses Offered: Gym 9, Gym 10

- Arts: ½ year courses required for all freshman and sophomores, electives available for all juniors and seniors

Arts Courses Offered: Art Studio I, Art Studio II, Painting, Drawing, Ceramics, Design Thinking, Art Journaling, Portfolio Concentration, Music I, Music II, Choir, Theater I

**Cathedral offers two Advanced Placement courses:**

- AP English
- AP Calculus

**ACADEMIC EXPECTATIONS & SUPPORT** Cathedral High School provides students with a rigorous college preparatory program and maintains high standards. Students are expected to take a serious approach to academic study, participate in extracurricular activities, share faith through liturgical celebrations, and serve others.

The minimum required GPA for all students is 2.0. Students who fail to achieve an overall GPA of 2.0, or who are failing in any class, will be placed on academic review and will receive additional academic support after school. In order to be eligible for promotion to the next grade, students must achieve a minimum overall GPA of 2.0 and a 60% or greater in each course. If a student fails a class, he or she must repeat the class.

**Course Load Requirement**

Students must carry six core courses each semester (some combination of English, mathematics, science, history, foreign language, and religion). No more than two may be in the same discipline. Only with permission from the Art Department Chair and the Principal, a 12th-grade student may take five core courses and two Arts electives.

## ENGLISH

*ELA 7.* The seventh grade ELA course focuses on developing students' skills in reading, writing, speaking, and listening. Students will work to cultivate an understanding of the elements of literature through close reading, analysis, and classroom discussion while exploring various themes, topics, and literary concepts. We focus on vocabulary building, grammar, punctuation, and media literacy. Students will have the opportunity to read a variety of genres and to learn how to answer text-dependent questions. During the first trimester, students examine the concept of pursuit to analyze the strength of the human spirit against great odds. During the second trimester, students investigate the principles of a just society by exploring different cultures, eras, and diverse points of view. The third trimester will focus on the human struggle, determination, and the fight for human rights. Throughout the year, students are expected to complete a variety of homework tasks, in-class and take-home writing assignments, projects, and presentations. Students will work both individually and collaboratively, with opportunities for project-based learning and exploratory learning assignments as well.

*ELA 8.* The eighth grade ELA course builds upon the skills developed in the seventh grade. Students will continue to work on developing an understanding of the elements of literature through close reading, analysis, and classroom discussion while exploring various themes, topics, and literary concepts. We continue to focus on vocabulary building, grammar, punctuation, and media literacy. Students will have the opportunity to read a variety of genres and showcase their ability to answer text-dependent questions. During the first trimester, students will study the literary masters of suspense; and after reading classic thrillers, students will try their hands at the genre by applying what they have learned to craft their own narrative writing projects. The second trimester consists of exploring the ramifications of the brave, critical, and illuminating choices that those in extreme conflict are forced to make. During the third trimester, students will examine the complexities of how people become who they are as well as investigate ways to realize their own potential in the world. Throughout the year, students are expected to complete a variety of homework tasks, in-class and take-home writing assignments, projects, and presentations. Students will work both individually and collaboratively, with opportunities for project-based learning and exploratory leaning assignments as well.

*English I.* The 9th grade English course will encourage students to understand, read, and write about the importance of feeling empathy for others, of assuming the responsibilities of leadership, and of pursuing dreams and aspirations. Students will explore these topics and themes through the reading of multiple pieces of literature and informational texts. The unit on empathy examines how human compassion informs our understanding of humanity and the world. The unit on leadership examines the idea of governing and asks the big question: What are the responsibilities of power? The final unit concerns dreams and aspirations and examines what makes a dream worth pursuing. Not only will students be able to analyze the actions and motivations of young characters in relation to these guiding units and essential questions, but will also challenge themselves to think, write, and reflect on their own character, motivations, and passions as they grow. By examining texts in which characters deal with issues and choices pertaining to empathy, leadership, and dreams and aspirations,

students will grow in their own awareness and ability to intentionally think about the way they live their lives in school, at home, in their local communities, and as citizens of the world.

***English II / English II Honors.*** In English II, students will build upon lessons learned in English I to read texts across a variety of different genres that prompt questions about how much control we have over our lives and what we stand to gain when we share and interact with others. During the first trimester, students examine the roles of fate and free will in our lives and attempt to answer the age-old question: How much of what happens in our lives do we actually control? Trimester two explores tensions between societal rules and expectations and the implications of challenging these expectations in order to do the “right” thing. The third trimester will focus on different kinds of interactions, such as those we share with human beings and with our environment, and explores what these interactions reveal about us as humans. During this course, reading and writing assignments will ask students to think critically about themselves, their communities, and society as a whole. Students will also work to further develop skills to read closely and critically and to communicate arguments and opinions by listening thoughtfully, thinking deeply, speaking articulately, and writing effectively. Daily coursework will include small and large group discussion and independent reading and writing. Most coursework will be completed in class, but some outside-of-school work will be expected to complete reading assignments, weekly homework, as well as larger term papers or projects. Students in English II Honors will encounter additional readings, more frequent and more challenging writing assignments, a faster pace, and higher expectations.

***English III / English III Honors.*** “American Literature.” In English III, students will build upon lessons learned in English II to read texts of various genres in the American Literature canon, exploring the idea of the American Dream. In trimester 1, students will read *The Crucible* by Arthur Miller, exploring the role of religion, Native Americans, and slavery on the American dream. Students will focus on identifying rich pieces of evidence and developing reasoning that analyzes and evaluates evidence to fully support an argument. Students will explore a more modern example of the American Dream through *The Great Gatsby* by F. Scott Fitzgerald. Students will focus on developing close reading skills to break down a difficult text and to use figurative language and literary devices to find theme. While students will continue to develop their writing and reasoning skills, we will also explore how to speak in front of others, finding ways to be articulate in speech as well as writing. In trimester 3, students will explore how love impacts the American Dream through Jhumpa Lahiri’s *The Namesake*. Students will move towards independence in their close reading and writing skills, focusing their attention on grammar to develop a unique writing style as well as improve one’s arguments and persuasion. Overall, students will end the year eloquently able to analyze, create and support their own, unique arguments in writing and speaking. They will demonstrate this in a project exploring their own American Dream and their college essays. Students in English III Honors will encounter additional readings, more frequent and more challenging writing assignments, a faster pace, and higher expectations.

**English IV / English IV Honors.** “The Human Condition.” In English IV, students will build upon lessons learned in English III to read independently, write, and think critically, using classic canonical texts to help find commonalities within the human condition and connect these timeless themes to current events. Students will start the year studying ancient mythology and exploring the elements of storytelling to help polish and finalize their college essays. They will then study Shakespeare’s *Hamlet*, encountering college course expectations in reading, writing, and analysis. They will end the year with a collaborative project on current events, combining the analysis and writing skills they have developed with the time management and collaboration they will need to succeed in college. Students in English IV Honors will encounter additional readings, more frequent and more challenging writing assignments, a faster pace, and higher expectations.

**AP English Language and Composition.** This college-level English course invites students to examine the complex relationship between language and the world. Thematically, this course will focus on real-world issues and multiple perspectives while equipping students with the tools of rhetoric and argument. Students will cultivate critical reading and thinking skills to discuss the meaning, purpose, and structure of non-fiction and fiction texts. While informal writing will be woven throughout the course, students will learn to write in a variety of formal styles to prepare them for the rigorous writing demands in college. Skills for this class focus primarily around rhetorical analysis, writing for multiple purposes, conducting research, and speaking coherently and insightfully about what one has read, written, or researched, as well as studying grammar and syntax to best prepare students for college-level work. (*Pre-requisites: approved application based on standardized test scores, GPA, English grades, and English teacher recommendation*)

## FINE AND PERFORMING ARTS

**Art Foundations I.** People make art to express ideas about the world of which they are a part. They do it for the joy of creating, to experiment with media and materials. In this studio course for 7th graders, students will learn about line, shape, value, form, texture, space and color as they expand their skills of drawing, painting and working three dimensionally. The course will begin with a variety of drawing assignments in order to build a strong foundation and then move towards three-dimensional art using paper mache material. Students will also will develop their abilities to express themselves through their artwork and how to make choices as an artist. Intentionally, the class will develop and maintain a positive creative environment, marked by respect for everyone’s creative efforts. In addition, students will begin to develop an art vocabulary. Students will demonstrate their ability to respond to, to analyze, and to interpret their own artwork and the work of others through critiques and writings. Students will keep a personal sketchbook/process journal for homework.

**Art Foundations II.** This class will build on what was learned in the Art Foundations II class. In this studio course, 8th-grade students will continue to develop their abilities to express themselves through their artwork. The course will focus on a further understanding of the elements of art, with an emphasis on expanding the skills of drawing and painting, as well as how to work three dimensionally. By the end of the

course students will have an understanding of the difference between abstraction and realism. Throughout the school year students will have the opportunity to explore various art mediums as well as grow in their creativity. In addition, students will continue to develop their art vocabulary. They will demonstrate their ability to respond to, analyze, and interpret their own artwork and the work of others through critiques and discussions. Homework will include keeping a personal sketchbook/process journal to track a student's artistic development.

**Art Studio I.** In this course, required for all 9th-graders, students will develop and demonstrate their abilities to express themselves through their artwork. The course will focus on building upon the skills learned in the Art Foundations courses. This course will expose students to different art materials and techniques such as drawing, painting, print-making, and sculpture, providing students with the opportunity for individual experimentation! Students will build on their existing art vocabulary as they discuss the art made in class.

**Art Studio II.** In this art elective, the choice for sophomores wishing to take art, students will explore deeper the expressive quality of drawing and painting as they tie their work to different artists. We will look at different mentor artists and experiment with their styles. The course will explore a number of essential questions, including: What is art? How does knowing the contexts, histories, and traditions of art forms help us create our own works of art and design? Why do artists follow or break from established traditions? How does art reflect and shape culture? Why do artists have different styles? How can we talk about art? (*Prerequisites: Art Studio I.*)

**Drawing.** In this elective, primarily for juniors and seniors, students will learn how to make their visual ideas take form. We will study the basic ways a drawing is made, how to use perspective, and how to set up an interesting composition. This course will focus on developing detailed drawing and rendering skills in different pencil weights, *conté*, pastel, and charcoal. Students will build upon the skills learned in Art Studio I to bring deeper expression to their drawing. Students will explore multiple techniques and draw with a variety of materials as they learn how to render from close observation and how to use color effectively. In the first half of this course, students will focus on still life, learning to draw what they see. The second half of this course will focus on rendering the human figure, creating a self-portrait and learning how to be expressive with drawing. Students will work on drawings both in class and at home as part of their sketch book. Sketch books will be graded as weekly homework. Drawing done on location will be encouraged. Drawings produced in this class are designed for display and can be part of a portfolio to be used for application to an art college. This course will also develop ways to critique artwork. (*Prerequisites: Art Studio I.*)

**Painting.** In this course, students will be exposed to three painting materials: watercolors, acrylics, and oils. We will look at mentor painters and break down how they composed their paintings. We will build a painting-skills tool box based on observation and experimentation. Paintings will be done from observation and imagination. Some of our painting will be on location, thus getting out of the classroom and into the world. By the end of this course, each student will choose a painting material concentration and develop their own ideas and their own artistic expression. This class will stress the building of skills. Students will maintain a sketch book will for

notes and ideas, and they will produce weekly drawings outside of class. (*Prerequisites: Art Studio I.*)

***Ceramics.*** Clay is one of the oldest materials used by mankind to make useful vessels. In this clay course, students will focus on the hand-building processes such as slabbing, coiling, pinching, casting, and layering. Throwing on the wheel will also be introduced. In this class students will make mugs, bowls, plates, containers, and servers. As we learn this handcraft, each student will keep a portfolio of work. During the class, we will work together on projects and skills. After learning a skill is learned, students will be expected to work independently on their own ideas and manage assignment deadlines. All work should reflect a higher level of thinking regarding art making. (*Prerequisites: Art Studio I.*)

***Design Thinking.*** In this course students will learn the methodology used by designers to solve complex problems and find desirable solutions for clients. Design Thinking draws upon logic, imagination, intuition, and systematic reasoning, to explore possibilities of what could be and to create desired outcomes that benefit the end user (the customer). In this course students will learn basic technical drawing as well as drafting skills as they design interior spaces and product packages. Students will build and test prototypes, working from a concept to a finished product, as they develop problem-solving skills. Students must work independently and as a member of a team, managing assignment deadlines. Students will also be required to work outside of the classroom observing popular culture. All work should reflect a higher level of creative thinking. (*Prerequisites: Art studio I.*)

***Art Journaling.*** In this course, young artists will create a visual journal to be used for self-discovery and creativity. Students will gain the courage and freedom to express themselves through a hand-made book using a variety of instructed art techniques. The class will explore the use of multiple media that range from watercolor and pen and ink to recycled material. All assignments will be completed in the students' visual journal, while technique practice will be done on separate paper. Students will receive a classwork grade at the end of each week portraying their work ethic and effort. There will be bi-weekly homework assignments in which students will receive a prompt and create a work relating to it. Students are also required to participate in class critiques. At the end of the school year there will be a personal journal review. (*Prerequisites: Art Studio I*)

***Portfolio Concentration.*** This is the capstone class for college preparation in the study of art. In this course students will demonstrate their abilities to express themselves through their artwork. The course will focus on developing a personal style and concentration while building a portfolio of works that would be acceptable for submission to an art college. Students will choose from a variety of materials with which to work. They will continue to keep a personal sketchbook/ process journal as homework. Students will also be responsible for visits the Museum of Fine Arts, Boston and other galleries and museums as part of their homework or a class project. Students must work independently and manage assignment deadlines. All work should reflect a higher level of thinking regarding art making. All works done in and outside of class will be presented and defended as part of class critiques. (*Prerequisites: Art Studio I, Art Studio II, one additional Art elective, teacher recommendation, and sample student work.*)

**Music I.** Open to all students, this course will trace the history of the art of music and give students an opportunity to learn various aspects of music, from performance and composition to music theory. Issues of music in world cultures and society will be discussed. Students will study music genres as they relate to historical periods. Ultimately, students will analyze musical innovations as reflections of societal change and will evaluate the impact of music on social change. A final project includes composition and performance of a new piece of music.

**Music II.** This course is an extension of Music I, available in 2018-2019 to musicians already accomplished with their chosen instrument. Using the learned skills students will now work with various musical instruments. Ultimately students will be learning to play an instrument with a class goal of a fall and a spring performance. Students will continue to trace the history of the art of music as they take the opportunity to learn various aspects of music, from performance and composition to music theory. (Prerequisites: Teacher approval based upon an audition early in the school year.)

**Choir.** No experience is required to become part of the chorus. The class is geared towards performance and will emphasize music notation reading, sight-singing skills, and opportunities to perform. The fall semester will include performing at the Cathedral of the Holy Cross as part of our school Mass. The spring semester will involve the school talent show. Other opportunities to perform, including festivals and clinics outside of school, will be available.

**Theater I.** Theatre I is an introductory course designed to acquaint students with the various elements of the theatre and the practice of acting. Students will examine and study the role that acting, directing, sound, lights, set, costumes, make-up, and publicity play in the creation of a line production. Students will be required to view and analyze one professional production during each semester. Students will also learn the basic approach to working comfortably on the stage, through warm-ups, monologues, scene work, and improvisation. Basic techniques of movement, voice projection, character development, and performance will be taught. The spring semester will involve students in the development and production of a performance.

## FOREIGN LANGUAGES

**Spanish I.** In this course, an introduction to the Spanish language, students will explore important basic concepts, vocabulary, and cultural aspects of the language. Exposure to the language will involve different methods, including listening, speaking, reading, and writing. Students will be able to make connections with other subject areas and make comparisons with their own language and culture. Students will complete tasks and projects that will help them build skills to communicate in many different ways. This course will demand that students prepare for class thoughtfully and thoroughly, participate in class discussions, and successfully produce a series of projects associated with each of the course units.

**Spanish II.** The Spanish II course is designed to enable the student to communicate with native Spanish speakers and understand their cultures. Students will continue to

explore and expand their command of important basic concepts, vocabulary, and cultural aspects of the language, and they will work to master different ways of interacting with the language, including listening, speaking, reading, and writing. Students will be immersed in a classroom where they are largely expected to speak only Spanish. They will be learning various parts of speech (verbs, pronouns, adjectives, etc.), and by year's end students will be able to conjugate three verb forms in several tenses.

**Spanish III.** In this course students will be reading *Tinita*, the story of a teenage girl from Monterrey, Mexico, whose family immigrates to Denver, Colorado. The book consists of fifteen chapters and includes comprehension and discussion questions as well as a glossary at the back of the book. Students will be immersed in a classroom where they are expected to speak only Spanish. Students also will learn various parts of speech (verbs, pronouns, adjectives, etc.) as well as vocabulary associated with travel, kitchen and food, country vs. city living, and clothing. Students will be able to successfully conjugate three verb forms in several tenses. On top of this students will learn about the culture of Spain and other countries. This course will demand that students prepare for class thoughtfully and thoroughly, participate in class discussions, and successfully produce a series of projects associated with each of the course units.

**Spanish IV.** This course provides students with the opportunity to gain proficiency in Spanish and to expand their auditory and reading comprehension using authentic materials (radio and television segments, newspaper articles, etc.). Students will refine their writing and reading skills through a survey of Spanish and Latin American literature and of Hispanic writers in the United States. (*Prerequisites: Spanish III and teacher recommendation.*)

**French I.** French I focuses on helping students build strong vocabulary bases and simple grammar structures. French I also provides an initial introduction to French culture and traditions. Throughout the year and in each class, we will be learning French through reading, writing, listening, and speaking activities, consistently supported by fun and educational games, singing, and other creative approaches.

**French II.** French II is conducted primarily in French. By the end of the year you will be able to use French to describe yourself, your family, and friends; to talk about their personalities and their likes and dislikes; to talk about daily activities and possessions; to talk about foods and beverages and healthy nutrition; to describe your house and city; to talk about clothes and fashion; to talk about sports and entertainment; to ask and answer questions; and to narrate in the past and future. The class will expand on the themes studied in French I, emphasizing daily participation and mastery of grammatical structures and vocabulary needed to communicate effectively.

**French III.** In French III, objectives are to use and understand intermediate-level vocabulary and discuss personal and simple social topics with more grammatical accuracy and speed. Students will also learn to read with increased understanding texts written for French native speakers and understand better the linguistic and cultural heritage of French speakers around the world.

**Advanced French.** Advanced French. Few activities reinforce the learning of a language as well as teaching that language does. Two to four outstanding French students will be selected to serve as Teaching Assistants supporting younger students in French I and French II classes. They will perform dialogues in French and help students when they need support. In addition, each week, they will pursue their own language studies independently, reading and analyzing French novels and watching and critiquing French videos. (*Prerequisites: French III and teacher recommendation.*)

## HISTORY

**Social Studies 7.** “Social Justice around the World.” 7th grade Social Studies is designed to cover the major elements and aspects of “social justice.” We will spend the year examining different examples of social injustice around the world and considering the long process of working towards social justice. We will analyze injustices continent by continent and connect geographical climates, features, and cultures into our study of social justice. Some of the specific injustices we will study include child soldiers in Africa, the oppressed Dalit people of India, and sweatshop workers in South East Asia. Throughout the year, students will develop their higher order thinking skills by developing a range of fundamental history skills but especially their ability to clearly and convincingly use “claim, evidence, and reasoning” (CER) to argue academic points. This course aims to inspire students to become educated citizens who are committed to social justice and human rights.

**Social Studies 8.** “Social Injustice in African-American History.” The 8th grade Social Studies course is designed to build on students’ understanding of social justice and allow them to expand their understanding through analysis of the social injustices perpetrated on African Americans over time. Specifically, students will analyze the actions of individuals and groups that have allowed a system of racial oppression to continue in this country for over 400 years. Students will have the opportunity to analyze injustices associated with slavery, the Jim Crow era, and mass incarceration. As students analyze these topics, they will be challenged to work towards mastery of a variety of history skills, with a particular focus on developing their skills as writers who can establish a convincing thesis supported by strong evidence and clear reasoning. Building on the study of social justice in the world in 7th grade, this course prepares students to identify injustices in their own world, so that they can stand up to them no matter what career they choose later in life.

**World History I.** “Leadership for the People.” The World History course (9th grade) builds off the Middle School themes of social justice. The course focuses on famous and infamous leaders, their impact on the rights of the citizens living under their rule, the legacies of these leaders in the modern world, and the relationship between leadership and the overall evolution of human rights. Topics of study will include the power of religion in Europe, the effect of the advancement of science and technology on the world and on the church, the causes and impact of both World War I and World War II, and the significance of the Cold War to our world today. Students will demonstrate learning in various ways such as primary source review, textual analysis, monthly essay writing assignments, debates, documenting evidence, and defending their claims. By

the end of the year, students will understand not only how a leader impacts human rights, but also how they can personally develop a leadership style and be an advocate for human rights and social justice.

***World History II.*** “The Political Economy of Injustice.” This 10th grade course will focus on events in world history that highlight how money, resources, and greed can lead to the oppression of the poor and vulnerable and create marginalized communities around the world. Juxtaposing these events with the seven themes of Catholic Social Teaching will show the true scope of injustice. This class will analyze topics such as classism, imperialism, and globalization in order help students understand not only the basics of economics, such as supply, demand, and opportunity cost, but also the economics of injustice. As students analyze these topics, they will be challenged to work towards mastery of a variety of social justice/history skills, especially their ability to develop empathy, create connections, and evaluate historical events. Furthermore, this course will pay special attention to students’ writing skills, help them build upon what they’ve learned in 9th grade, and increase the academic and scholarly nature of their writing.

***United States History.*** “Social Justice, Law, and Human Rights in America.” By considering different historical “-isms” (federalism, expansionism, racism, etc.) students will explore how the essential themes of social justice, law, and human rights have developed over the course of our country’s history. The course will consider an array of sources, including textbook accounts, essays, scholarly articles, speeches, and other primary documents, and it will develop skills, in particular analytical reading, thinking, and writing; note taking; and research and presentation. In addition, this course will guide students to looking at issues from a Catholic perspective and give them the tools needed to identify both the beneficial and harmful systems that are interwoven into the fabric of U.S. society. The course will empower students to follow the words of Proverbs 31: 9, to “judge righteously” so that they will one day be prepared to “defend the rights of the afflicted and needy.”

***Law & Society.*** This course will encourage students to explore how the law relates to their own communities and society as a whole. Students will begin with an overview of the purpose and intentions behind the United States Constitution and a study of the Bill of Rights. Students will then apply constitutional amendments to their own lives and communities through the study of laws and Supreme Court cases. The class will be challenged to explore the concept of justice and injustice in the context of law and how that plays out our society. Students will be asked to consider multiple perspectives of the relationship between the law, justice, and society in the United States including racial, religious, and social justice. Historical events and issues to be explored include slavery, the 13th Amendment, and the “new Jim Crow,” as well as race, gender and sexuality, immigration rights, criminal justice, the war on drugs, mass incarceration, law enforcement, and Native American rights. Critical attention will also be paid to juvenile justice and student’s rights within schools. The learning experiences will include a tour of the Suffolk County Jail and a courthouse. The final trimester of the course will be conducted in true college format, focused on a project exploring a legal and social issue of interest to each particular student, presented in the media format of ones choosing.

***Global Citizenship Seminar.*** This senior elective will encourage students to consider the meaning of “global citizenship” as we explore the role of national, multinational, and non-governmental organizations and assess their efforts in the areas of global health, education, human rights, and economic development. Together, we will examine the United Nations Declaration of Human Rights and evaluate the current status of those rights in the world today; consider how progress has been made at the local, national, and international level on the current Sustainable Development Goals; connect with Cathedral graduates and discuss their experiences as “global citizens”; and consider the limitations and the promise of NGOs as they set goals to improve our world. In partnership with Students Shoulder-to-Shoulder’s Ethical Leadership Institute, we will assist teams of students as they develop independent projects with global relevance. This project-based course will introduce students to people and organizations seeking to make a difference in the world and will empower them to make a difference themselves.

***Women and Gender in History.*** This course will provide an interdisciplinary focus on the role of women and gender norms throughout history. This course seeks to understand what has, and has not changed for women and gender norms by looking at historical ideas and experiences of women and concepts of femininity. The goal is not just to understand how women have contributed to and changed the landscape of modern American history, but also the ways in which they have fought for recognition after decades of victimization and living as second-class citizens through examination of pivotal and fundamental historical moments. Students will consider the ways in which women have been divided by race, ethnicity, religion, class, and sexuality. Within these intersectional frameworks, students will be challenged to consider the role of women throughout the history of the United States and the current meaning and role of gender norms in society. Topics will include, among others: witchcraft, suffragettes and the right to vote, African-American women and slavery, feminism, the female prison population, and women in sports.

***The Civil Rights Movement.*** This 12th grade elective considers the civil rights movement, including its roots in the 1940s and 1950s but focusing especially on the developments in the 1960s. The course will include examinations of major figures like Dr. Martin Luther King, Jr. and Malcolm X as well as lesser-known leaders like Bob Moses, Ella Baker, Fannie Lou Hamer, and others. Students will explore the different factions within the movement, various approaches, actions, and philosophies, issues of leadership and grassroots activism, important successes, troubling problems, and lasting legacies. During the winter trimester, each student will become a teacher for a day, leading a class based on his or her reading of a work of nonfiction related to the civil rights movement.

***The History of Boston.*** This senior elective is designed not only to give students an overview of the history of their hometown, but to focus on the treatment, and rights, of different demographics in this city over time. During the first half of the year, this class will survey Boston history and focus topics like the Massachusetts tribe, the molasses flood, mob figures, busing, and sports culture. In the second half of the year, students will focus in on one neighborhood in Boston and create a college-style thesis about an element of this neighborhood’s history. The goal of this class is to enhance the sense of community and solidarity that students have with the city, so that they pursue careers

that allow them to work for justice, “and defend the rights of the afflicted and needy.”  
(Prerequisites: United States History.)

## MATHEMATICS

**Numerical Literacy.** In Numerical Literacy, students will receive instruction in and demonstrate the ability to perform basic mathematical functions and problem solving in the areas of addition, subtraction, multiplication, and division of whole numbers, decimals, and fractions; they will also explore ratio and proportion and various topics in pre-algebra and geometry. Students will develop a facility with numbers, they will be encouraged to develop a problem-solving mindset that enables them to consider mathematical challenges in different ways, and they will consider the usefulness of math as they apply their knowledge and skills to real-world situations. Specific topics of study will include: essential mathematical functions (addition, subtraction, multiplication, and division); prime numbers, composite numbers, and integers; fractions and decimals; ratio, proportion, and percentages; introductory geometry (lines, angles, triangles, quadrilaterals, and polygons); measurement, including surface area and volume; probability; statistics (reading and comparing whole numbers, and understanding mathematical expressions in written materials); and introductory algebra.

**Pre-Algebra.** This course provides the mathematical foundations needed for success in algebra, geometry, and general problem solving. Students will build study and note-taking strategies to help develop their learning skills. This course will: hone problem-solving skills (challenging problem-solving practice, in context, and clear presentation of key concepts will prepare students for algebra courses); develop active learners (note-taking strategies, vocabulary review, and a focus on margin notes will guide students to develop study skills and conceptual understanding); promote achievement and success (practice with test-taking strategies and varied question formats, in print and using integrated technology resources, will build the confidence and problem-solving skills needed to achieve success); and connect mathematical concepts to real-world scenarios. Topics of study will include: variables, expressions, and integers; solving equations; multi-step equations and inequalities; factors, fractions, and exponents; rational numbers and equations; ratio, proportion, and probability; percentages; linear functions; real numbers and right triangles; measurement, area, and volume; data analysis and probability.

**Algebra I and Algebra I Honors.** This course is designed for students who have demonstrated basic pre-algebra skills such as adding, subtracting, multiplying, and dividing positive and negative integers and solving basic one-step and two-step equations. The purpose of Algebra I is to increase student awareness of the importance of mathematics in the modern world. Students will become more confident in their ability to work with mathematical concepts and relationships. They will learn how to think systematically and use the precise logic required for mathematical problem solving. This course builds on students’ understanding of basic mathematics in the study of algebraic skills and problem solving. Students will learn to express real-world problems in algebraic sentences in order to find solutions. This course is the foundation

for high school mathematics courses and the bridge from the concrete to the abstract study of mathematics. Topics include modeling real world scenarios with algebraic functions, simplifying algebraic expressions, evaluating and solving linear equations and inequalities, using the properties of positive, negative, and fractional exponents, solving systems of equations and inequalities, adding, subtracting, and multiplying polynomials, solving quadratic equations, and graphing linear, quadratic, absolute value, and exponential functions and relations. Real world applications are presented within the course content. The Honors version of this course will involve a faster pace, a more significant workload, and greater depth of coverage of certain topics. Successful completion of this course will prepare student for Geometry or Geometry Honors. (*Prerequisites for Algebra I Honors: teacher recommendation based upon standardized test scores, GPA, math grades, and if specifically required, successful completion of assigned summer work.*)

**Geometry and Geometry Honors.** This course is designed for students who have successfully completed Algebra I. The course emphasizes the properties and applications of common geometric figures in two and three dimensions. Students will learn how to think systematically and use the precise logic required for mathematical problem solving. Geometry students will be able to read, analyze, and solve right triangle and trigonometric functions within contextual situations and develop area formulas necessary for determining volumes of rotational solids. Topics in the course include essentials of Geometry (points, lines and planes), angle pair relationships, parallel and perpendicular lines, congruent triangles, relationships within triangles, similarity, right triangles and trigonometry, quadrilaterals, properties of circles, and length and area. The Honors version of this course will involve a faster pace, a more significant workload, and greater depth of coverage of certain topics. Successful completion of this course will prepare student for Algebra II or Algebra II Honors. (*Prerequisites for Geometry Honors: Algebra I; teacher recommendation based upon standardized test scores, GPA, math grades, and if specifically required, successful completion of assigned summer work.*)

**Algebra II and Algebra II Honors.** This course assumes successful completion of Geometry or Geometry Honors, and the vast majority of the students will take either Pre-Calculus or Pre-Calculus Honors in the following year. The course is inspired by the Algebra II material that is found on the PSAT and SAT. Students will cover in greater detail and at a higher level of difficulty such topics as linear functions, systems of linear equations, and parabolas. They will also encounter new topics such as function notation, non-linear systems of equations, square root functions, exponential functions, and an introduction to trigonometry. Algebra II Honors will include more in-depth analysis and applications of the Algebra II topics, as well as additional units covering advanced methods of factoring, quadratic word problems, and an introduction to the unit circle. Also, Honors students can expect longer and more frequent assignments and assessments, a greater emphasis on memorization of formulas, and homework over school vacations. (*Prerequisites for Algebra II Honors: Algebra I; teacher recommendation based upon standardized test scores, GPA, math grades, and if specifically required, successful completion of assigned summer work.*)

**Algebra II / Pre-Calculus Honors.** This is a fast-paced course designed to cover all the material from Algebra II Honors in three quarters and introduce the Pre-Calculus

concepts that are essential for AP Calculus in the fourth quarter. These additional concepts in the fourth quarter include: simplifying/deriving basic trigonometric identities, solving trigonometric equations, evaluating expressions with exponential and logarithmic functions, analyzing graphs of functions (including end-behavior and other features), and an introduction to rational functions. Juniors who excel in this course, along with teacher recommendation and successful completion of additional summer work, may be placed in AP Calculus their senior year. (*Prerequisites for Algebra II / Pre-Calculus Honors: Algebra and Geometry I; teacher recommendation based upon standardized test scores, GPA, and math grades.*)

**Applied Mathematics.** This course combines statistics and financial algebra. The course introduces students to the basics of statistical testing. Students learn to organize, display, and analyze data and to explore the elements of probability. It is also designed to help students see the mathematics behind finance. Through group presentations, online research, and collaborative lessons, students will explore the algebra behind break-even points, taxes, loans, mortgages, and other real-world financial topics. Students will plan budgets, analyze stock values, and practice statistical interpretation. Students will have the opportunity to hear from representatives in the financial field and will have the opportunity to explore the application of math outside the classroom. Seniors placed in another 12th-grade math class may opt also to take Applied Mathematics as an elective. (*Prerequisites for Applied Mathematics: Algebra II.*)

**Pre-Calculus / Pre-Calculus Honors.** This course follows the successful completion of Algebra II or Algebra II Honors. It will emphasize the Pre-Calculus material covered by the SAT and ACT for the majority of the course and will end with an introduction to the first unit of a typical college Calculus course. Course topics include applications of quadratics, exponential and logarithmic functions, trigonometry (including the unit circle and sinusoids), rational functions, and an introduction to limits. Pre-Calculus Honors will include more in-depth analysis and applications of these topics, as well as additional units including sequences and series and parametric equations. Also, Honors students can expect longer and more frequent assignments and assessments, a greater emphasis on memorization of formulas, and homework over school vacations. (*Prerequisites for Pre-Calculus Honors: Algebra II; teacher recommendation based upon standardized test scores, GPA, math grades, and if specifically required, successful completion of assigned summer work.*)

**AP Calculus AB.** An Advanced Placement (AP) course in calculus consists of a full high school academic year of work that is comparable to a one-semester calculus course in colleges and universities. AP Calculus will follow the topics outlined by the College Board. The course is primarily concerned with developing students' understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations are demonstrated through the unifying themes of derivatives, integrals, limits, approximation, applications, and modeling. Graphing calculators will frequently be used in class to observe and analyze graphs and other relevant data, and opportunities will arise for students to demonstrate verbal understanding by explaining concepts to

peers. Various activities and discussions will provide opportunities to reason with theorems and definitions. Students will be exposed to and expected to use proper notations consistently. The main objective of this course is to prepare students for the AP Calculus AB exam to be given in the spring. (*Prerequisites for AP Calculus AB: approved application based on standardized test scores, GPA, math grades, math teacher recommendation, and successful completion of assigned summer work.*)

## RELIGION

**Religion 7.** "Introduction to the Bible." This course will introduce the Bible in its entirety, with a special emphasis on the Good News of Jesus as revealed in the Gospels. Students will analyze these primary sources to find the spiritual truths within the historical life of Jesus. Students will identify the significance of the passages both for the people of the day as well as for the modern reader. The experience will include a study of Pope John Paul II's "Theology of the Body." Students will learn conversation etiquette and be able to build on the viewpoints of one another, as well, so that all viewpoints are considered as we grapple together with the teachings. Students will compare and contrast various dramatic interpretations of Biblical events with the Scriptural accounts themselves. Students will study the process of creative interpretation with the aim of creating one of their own interpretive accounts.

**Religion 8.** "Introduction to Catholicism." Building on the foundation of the Gospels, this course will introduce the basic teachings of the Catholic Church, with a special emphasis on the sacraments. The focus of the course will be about the need to make decisions that lead toward being the best version of oneself. Using the "Decision Point Series for Confirmation," students gain access to the tools they will need to understand the teachings of the Catholic Church. Students will analyze and discuss the interpretations of the authors of the series and personally reflect on the impact the questions offered in the text have on their own decisions. Students will also explore Pope John Paul II's "Theology of the Body" in greater depth. Students will build on the foundations of conversation etiquette and creative interpretation. Through these skills, students will demonstrate the importance and method of making good decisions, especially in areas of relationships.

**Religion I.** "The Old Testament." This course will critically examine the Old Testament as we wrestle through one of the oldest and most influential texts in the world. As we study a text that more than half of humanity today considers sacred, participants will seek to understand the Hebrew people of 4,000 years ago by learning of their history, literature, and poetry as they wrestled with God. The class will learn the proper historical contexts in preparation for comparing the Old Testament with our lives today, and we will incorporate modern-day music with references to spirituality to aid in this comparison. Students will develop and strengthen core skills over the course of the year related specifically to understanding, analysis, creation, and reflection. Students will increase their overall understanding through paraphrasing and decoding scripture and by consistently working on improving reading comprehension. Students will build their analytical skills by making connections between the people and events in the Bible and their own lives, as well as by critically and analytically examining plot and engaging in media literacy through examining movie clips and images. Finally,

students will engage in creation and reflection as they apply the knowledge they have learned, producing elaborate writing reflections in the form of five-paragraph essays, practicing public speaking, and presenting creative art forms consisting of awareness campaigns, children's books, YouTube videos, PowerPoints, poems and raps.

***Religion II.*** "The New Testament and the Church." The course will focus on the life, teachings, miracles, passion, death, and resurrection of Jesus. An essential goal of this course is not merely the teaching of a body of abstract truths but the communication of the living God as revealed in Christ Jesus. This course will explore the Gospels, the letters of Paul, other canonical witnesses, and the Johannine writings; particular focus will be placed on current Christian practices and their origins as revealed in the New Testament. Students will read significant and substantial parts of the New Testament, gaining familiarity with New Testament characters and themes. Ultimately, the intent of the course is to draw students' awareness to patterns of living that lead to human flourishing. To this end, this course involves various exercises, prayer reflections, discussions, and activities to involve the whole learner: head, heart, and body. In all this, the overarching aim is to provide students with tools and skills that will give their lives meaning and direction. While the course will include objective assessments, it will especially encourage active class engagement with an emphasis on critical thinking. Importantly, and finally, awareness of the diverse religious traditions that constitute Cathedral High School will inform the planning and conducting of classes.

***Religion III.*** "Religion and Morality." Religion seeks truth to the mysteries of life, and together we will do just that. Students will encounter the truths within various religions to grapple with the ultimate questions of our existence. Students will be provided with knowledge of core doctrine of their own beliefs, which will provide them the confidence to engage others who hold different beliefs. We will focus on how faith and the virtues help individuals become the best people they can be, and how that process builds a better society. Together we will encounter opportunities to grow in the cardinal virtues of wisdom, courage, and wholeness, the character traits that enable one to be a good person. By putting authentic conversation and literary analysis skills into practice, students will evaluate Catholic/Christian perspectives in relation to other options to moral decision making. Students will select the path that is most true to their person. The goal is that, by the end of the year, students will be wiser, braver, more just, and more self-disciplined, free to love as God has loved them.

***Religion IV.*** "Catholic Social Teaching." As they complete their tenure at Cathedral High School, building upon the wealth of experiences they've acquired to this point, seniors are ready to make their mark by recognizing, understanding, and meeting needs in their community and beyond. In this course, students will examine God's call to participate in the mission of restoring our relationships and our society to their original goodness, through charity and social action. Provided with the proper tools, seniors will practice leadership in causes about which they are passionate. This leadership entails giving attention to reliable sources of information about current events, prioritizing and narrowing one's focus on a particular social injustice, researching the causes of this injustice, and leading others to take action.

***Christian Living.*** This elective course for juniors and seniors will address significant and sometimes controversial issues that constitute Christian living: God, the end of the

world, peace and war amongst nations, social justice, family life, love, authority, sex, marriage, slavery, women in the Church, etc. The intention of this course is to have students take charge of their own personal faith walk—with God and others. As such, this course will be heavily student centered. Lessons will be constructed with a view for students to be actively engaged in, for example, research projects, debates, and class discussions. The springboard for all our inquiry will be the New Testament, especially the Pauline Letters, but students will be required to go beyond the text—that is to say, to translate scriptural teachings into real world situations by exercising their critical faculties. It is hoped, ultimately, the students will be better equipped to navigate the challenging life situations outside the walls of Cathedral High School.

## SCIENCE

**General Science.** General science introduces students to life, physical, and environmental sciences. Students use the scientific method through hands-on lab activities, open-ended investigations, and collaborative work. Group projects and activities will provide students opportunities to investigate topics of relevance to their own lives and build a general understanding of essential scientific inquiry and methods. Topics include: classification of plants and animals, systems of the human body, earth science, and matter and its phases. In this course, 7th-grade students develop and apply observational skills and active listening skills to construct hypotheses and test them in experiments.

**Physical Science.** The 8th-grade physical science curriculum provides students opportunities to practice and master their scientific skills as they explore both concrete and abstract concepts. This course acquaints students with the physical and chemical worlds that surround them. It will continue to build on skills of systematic investigation with a clear focus on variables. Students will engage in labs, open-ended investigations, and collaborative work. Major areas covered include: the periodic table, matter, energy, sound, light, magnetism, and electricity. Students continue to build on their communication skills as they report their lab findings.

**Chemistry.** Chemistry, required of all 9th-grade students, examines the behavior of matter and its reactions. Students study the rules that govern the relationship between matter and energy. Students are expected to follow all lab safety protocols, procedures, and techniques as they perform experiments to collect data for analysis. Instructional emphasis is placed on problem solving, analytical skills, projects, and laboratory experience. Topics include: matter, measurement, the periodic table, chemical reactions, stoichiometry, bonding, redox, and acids and bases. Students use quantitative and qualitative data analysis to prove or disprove their hypotheses, and they employ deductive reasoning to evaluate their conclusions.

**Biology.** This course, primarily for 10th-grade students, examines the behavior of living organisms and their environments, with special attention to the expansion of scientific knowledge that has developed in the 21st century. Modern technology has improved tools, techniques, methods, communication, and transportation, all of which have produced an accumulation of new information as well as reinterpretations of old information. These developments have changed the way scientists think about

biological processes. In this course, students investigate the processes that allow organisms to function and grow. Instructional emphasis is placed on projects and laboratory experience. Topics include: cells, genetics, comparative anatomy, ecology, evolution, and biodiversity. Students use research, data analysis, and critical thinking skills to evaluate biological processes.

***Introduction to Engineering Design.*** This full-year course, required for all juniors but available also as a senior elective, focuses on using the engineering design process to find, develop, and produce solutions to practical, everyday problems. Students will apply their existing skills in mathematics and science and use the engineering design process to solve problems and develop products using an applied-learning, project-based approach. Through a series of applications and projects, students will develop the framework and skills required for analytical problem solving and decision making. The applications and projects will be drawn from applied physics; the mechanical and electrical components and their interfaces will involve basic principles of electrical and mechanical engineering. Students will have the opportunity to hone their skills working in teams, communicating with their peers, and documenting their work. The major building blocks of the course will include computer hardware, computer software, and the electronic/mechanical interfaces necessary to provide application solutions. Computer hardware topics will include processors, main memory, input/output devices, storage, sensors, and communication. Software topics will include programming (creating the logic, algorithms, data structures, and interfaces necessary to provide the application solution) and coding (translating the results of the programming effort into Python software code that will run on the computer). The hardware, software, and electronic/mechanical interfaces will then be tested and integrated to demonstrate the application solution.

***Anatomy and Physiology.*** This science elective, primarily offered to seniors, examines the relationship between the organization of cells into tissues and the organization of tissues into organs. The structures and functions of organs determine their relationships within body systems of an organism. It is an intensive course which explains the eleven body systems and homeostasis. Instructional emphasis is placed on lecture, projects, simulation cases, clinical skills stations, and laboratory experience. Topics include: cells, tissues, the skeletal system, the muscular system, the nervous system, the endocrine system, blood, the cardiovascular system, the lymphatic system, the respiratory system, the digestive system, the urinary system, and the reproductive system. In this course, students use case analysis to interpret conditions of the human body. (*Prerequisites: Chemistry and a B average or better in Biology.*)

***Environmental Science.*** Environmental Science, an elective offered to juniors and seniors, examines the earth's behavior and its interactions with organisms. Students will use the earth's history and geoscientific data to consider the causes for the changing earth. This course explores all factors affecting the earth and its environment. Students investigate the natural world and systems using models, interpreting data, designing solutions, and conducting lab experiments. Topics include: earth's systems, the living world, population, resources, climate change, and human sustainability. In this course, students use current impact data to evaluate global change. (*Prerequisite: Chemistry and Biology.*)

***Biology II.*** Biology II is an advanced life-science course, an elective offered to juniors and seniors. Biology's key concepts and unifying themes work together to help students develop a coherent view of life and the exhilarating progress in our understanding of life at all levels, from molecules and cells to ecosystems and the biosphere. This course will help students develop positive and realistic impressions of science as a process of inquiry. Topics include: microbiology, genetics, the mechanisms of evolution, the history of biodiversity, body's defenses, animal reproduction, and sensory and motor mechanisms. Students investigate these topics through case studies, projects, and lab experiments. (*Prerequisite: Chemistry and a B average or better in Biology.*)