



# CRIS Course Catalog

## 2021 - 2022



*This document is published in February and is not updated. Please be sure to check the digital catalog for edits and new courses at [https://secure1.cpsd.us/course\\_catalog](https://secure1.cpsd.us/course_catalog).*

[crls.cpsd.us](https://crls.cpsd.us)



# Academic Support / Peer Leadership

## GACS | ACADEMIC SUPPORT

Academic Support classes are available to students during the school day. This is an opportunity to receive tutoring for an academic school subject from a Cambridge School Volunteer, student teacher, or peer tutor. Students should expect to work on homework or classroom work which may need enrichment. Students must discuss this placement with their guidance counselor. Students receive a pass/fail grade for this class. **Grades:** 10, 11, 12

## GACS05 | ACADEMIC SUPPORT

Academic Support classes are available to students during the school day. This is an opportunity to receive tutoring for an academic school subject from a Cambridge School Volunteer, student teacher, or peer tutor. Students should expect to work on homework or classroom work which may need enrichment. Students must discuss this placement with their guidance counselor. Students receive a pass/fail grade for this class. This Academic Support class meets on alternating days for a semester.

## GCRC | PEER LEADERSHIP

This course offers an opportunity for students to assist their peers in the College and Career Resource Center. Peer Leaders will assist other students with tasks such as on-line college applications, SAT and other college testing registration, researching colleges and assisting students with Naviance. Peer Leaders orient new students to Cambridge Rindge and Latin by giving tours of the school and helping students understand their course schedule. Students receive a pass/fail grade for this class. **Grades:** 10, 11, 12 **Pre-Reqs:** Permission from the Coordinator of Guidance.

## GTUT | PEER TUTORING

This course offers an opportunity to work with other students who need assistance in any subject. A student must have successfully completed a subject in order to tutor in that subject. Peer tutors must attend a peer training workshop as part of this class. Students receive a pass/fail grade for this class. **Grades:** 11, 12 **Pre-Reqs:** Passing grade in subject.

# AVID

## GAVID1 | AVID YEAR 1

AVID (Advancement Via Individual Determination) is a college readiness elective class for highly motivated students who plan to attend a four-year college. Students are required to take a rigorous course load (some honors and AP), with the understanding that they will be supported in the AVID Elective class. **Grades:** 9 **Pre-Reqs:** Students will be selected through an application and interview process.

## GAVID2 | AVID YEAR 2

AVID (Advancement Via Individual Determination) is a college readiness elective class for highly motivated students who plan to attend a four-year college. Students are required to take a rigorous course load (some honors and AP), with the understanding that they will be supported in the AVID Elective class. **Grades:** 10 **Pre-Reqs:** AVID Year 1

## GAVID3 | AVID YEAR 3

AVID (Advancement Via Individual Determination) is a college readiness elective class for highly motivated students who plan to attend a four-year college. Students are required to take a rigorous course load (some honors and AP), with the understanding that they will be supported in the AVID Elective class. **Grades:** 11 **Pre-Reqs:** AVID Year 2

## GAVID4 | AVID YEAR 4

AVID (Advancement Via Individual Determination) is a college readiness elective class for highly motivated students who plan to attend a four-year college. Students are required to take a rigorous course load (some honors and AP), with the understanding that they will be supported in the AVID Elective class. **Grades:** 12 **Pre-Reqs:** AVID Year 3

# Global Studies Certificate Program

The Global Studies Certificate (GSC) Program at Cambridge Rindge and Latin School is an application-based program that promotes student engagement in global studies through an emphasis on the Asia Society's global competence skills: investigating the world, weighing perspectives, communicating ideas, taking action, and applying disciplinary and interdisciplinary expertise in authentic ways. Students in the program need to maintain a 2.5 cumulative GPA or higher and fulfill the following requirements: 1) complete a Global Studies Portfolio/Website; 2) attend monthly GSC meetings; 3) enroll in the GSC Senior Spring Seminar course; 4) complete a GSC capstone program; 5) present their project at the GSC final symposium. Upon successful completion of the program, students' transcripts will reflect their achievement and they will earn a Global Studies Certificate. To learn more, visit the GSC Program's website: <https://sites.google.com/cpsd.us/crlsgscprogram>

The GSC Program is an application-based program, which opens each spring for students going into 10th and 11th grades. If accepted into the program, participants must fulfill the following requirements by their senior year to earn their Global Studies Certificate.

- Maintain a 2.5 cumulative GPA or higher
- Fulfill core course requirements and take at least three globally themed courses at CRLS
- Attend monthly GSC meetings
- Complete monthly online reflections on GSC Google Classroom site

- Attend and reflect on six global/multicultural events
- Complete Global or Local International Experience requirement
- Complete a Global Studies Portfolio/Website, which includes:
  - Cover/Homepage
  - Reflection Essay
  - Global Resume
  - International Experience: Global or Local Approval Forms
  - International Experience Photo Journal / Blog Entries
  - Global/Multicultural Events Reflections
- Enroll in GSC Senior Spring Seminar Course
- Complete Global Studies Certificate Capstone Project
- Present Capstone Project at GSC Symposium

### Required Global Courses at CRLS

Freshmen applicants to the GSC Program must upload a scanned copy of their most recent report card. Applicants must have a C or higher in the following courses:

- 9th Grade World History
- 9th Grade English Language Arts

Sophomore applicants to the GSC Program must upload a scanned copy of their most recent report card and their freshmen transcript. Applicants must have a C or higher in the following courses:

- 9th Grade World History
- 9th Grade English Language Arts
- 10th Grade English Language Arts

**For students in the Sheltered English program, the following courses are required:**

- World History
- ESL 3, 4
- SEI Electives:
  - World Today
  - Literature and Writing



## English Language Acquisition

### **XE001A | SE | ENGLISH**

This course will help students increase their skills in the fundamental concepts of listening, speaking, reading, and writing in the English language. Students will focus on learning common letter patterns to increase their spelling skills and pronunciation of words. They will apply their learning to fiction and nonfiction readings to demonstrate an increased mastery in decoding, fluency, and comprehension as well as oral and written expression. This class alternates with XS100 Pre-Physics. **Grades:** 9, 10

### **XE001B | SE | ENGLISH LITERACY DEVELOPMENT**

This course will help SLIFE (Students with Limited or Interrupted Formal Education) students increase their skills in the fundamental concepts of listening, speaking, reading, and writing in the English language. Students will focus on learning common letter patterns to increase their spelling skills and pronunciation of words. They will apply their learning to fiction and nonfiction readings to demonstrate an increased mastery in decoding, fluency, and comprehension as well as oral and written expression. **Grades:** 9, 10 **Pre-Reqs:** Placement test

### **XE002 | SE | FOUNDATIONS OF READING**

In this course students will focus on learning phonics, syntax, morphology and grammar to increase reading skills and lexile levels. They will be exposed to a variety of reading strategies to increase mastery in decoding, fluency, and comprehension as well as oral and written expression. **Grades:** Pre-Reqs: Placement test



### **XE101 | SE | ESL 1 (BEGINNING)**

In this course students with little knowledge of English take their first steps toward mastery of the new language. The introductory unit focuses on the use of everyday words and phrases that express identity, personal needs, and experiences. Students develop comprehension of simple sentences including statements, questions and commands. They plan and present information orally and in writing about personal experiences and interests. As students progress, the curriculum focuses on the development of academic vocabulary, reading strategies and grammar. Students read multicultural texts from many genres. Throughout this full year course, students learn to listen actively for information and express higher level thinking by writing, speaking, and writing in English. Grades reflect English language proficiency as well as their ability to respond to and analyze English language texts. **Grades:** 9, 10 **Pre-Reqs:** Placement test

### **XE102 | SE | ESL 2 (EARLY INTERMEDIATE)**

This course focuses on enhancing students' writing and reading skills and grammar development, as well as improving oral language skills. ESL 2 prepares students for a smooth transition to ESL 3. Reading selections include fiction and non-fiction at appropriate levels. Through cooperative learning techniques the students will develop the self-esteem and self-confidence necessary to learn new content and communicate effectively in the second language. A variety of pedagogical methods is used to ensure success with each student's learning style and to develop the whole student. This course will focus on a Extensive vocabulary development and skills practice. Reading strategies. Comprehensive grammar instruction. Writing development **Grades:** 9, 10, 11 **Pre-Reqs:** ESL 1 or Placement test

### **XE201 | SE | ESL 3 (INTERMEDIATE)**

ESL 3 is a course for students who have already acquired a basic knowledge of the English language. In this course students will expand their vocabulary and refine their knowledge of English grammar structures and language patterns. During the second semester they will begin an exploration of carefully selected English language literature. Students will learn the academic skills necessary for literary analysis, while at the same time focusing on language structures that appear in the text to improve their language skills. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** ESL 2 or Placement test

### **XE202 | SE | ESL 4 (ADVANCED)**

This course is designed to help English Language Learners progress to a higher level of English language in the areas of reading, writing, listening and oral skills. The main focus is on the development of English language skills through different genres offiction and non-fiction. Using a variety of learning activities, the students will have daily opportunities to express academic ideas in both spoken and written English. Additionally, students will improve paragraph writing and be introduced to a variety of essay styles. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** ESL 3 or Placement test

### **XE301 | SE | LITERATURE AND WRITING**

SEI Literature and Writing is a course designed for English language learners who are approaching Level 5 ("Bridging") in the WIDA ELD Standards. In this course, students will engage with both literary and informational texts dealing with a variety of themes. The texts are drawn from world literature and represent many different cultures and world views. As students examine the complexities of the human condition, they will reflect on the nature of power and agency in relationships, communities, and society at large. They will expand their capacity as thinkers, questioners, analyzers, and communicators. The course also aims to help students reinforce, solidify, and build upon their skills as readers and writers of English. Using ACCESS for ELLs test data and the WIDA ELD Standards, instruction will be differentiated to provide individual students with the support and scaffolding they need to improve these skills and to access grade level content independently. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** ESL 4 or Placement test

### **XH101 | SE | WORLD TODAY**

This course introduces SLIFE students to basic social studies skills and concepts such as the use of globes, charts and maps, continents, countries and states, climate, topography and natural resources, the role of the community, local government, and goods and services. The curriculum focuses on regions of the world. **Grades:** 9, 10 **Pre-Reqs:** Placement test

### **XH301 | SE | U.S. HISTORY 1**

In this course, students will learn about the United States' geographical, political, social, and economic history through sheltered instruction. The development of reading, writing, research, and oral communication skills is an integral part of the curriculum. Students will read both primary source and secondary source documents to analyze important events in United States history. They will learn about the United States and its origins as a land of many peoples including Native Americans, Africans, and Europeans. Major units will include the Revolutionary War, its consequences, and key ideas of the U.S. Constitution. Students will gain an overview of American democracy and government as well as an understanding of the rights and responsibilities of individuals. Other major units include Westward Expansion, the establishment of political parties, sectionalism, the Civil War, and Reconstruction. Throughout the year, students will make connections between relevant topics in history and their own lives and engage in analyzing how the work of individuals, both ordinary and extraordinary, have shaped the history of the United States. **Pre-Reqs:** Placement test

### **XH302 | SE | U.S. HISTORY 2**

This class is a continuation of SE United States History 1. Students will look at the challenges of Reconstruction, and how the Civil War affected the lives of many. Other units will include the Industrial Revolution, America's growing role in diplomatic international affairs, the Progressive Movement and the New Deal, the Boom of the 1920s, the Great Depression - its impact on American values and society - and America's entry in World War I and World War II. Finally, students will trace the causes of the Cold War and identify the significant economic and political changes that came as a result, including the Civil Rights Movement and the Women's Liberation Movement, as well as recent events and trends that have shaped modern day America. **Grades:** 11, 12 **Pre-Reqs:** Placement test

### **XM001 | SE | FOUNDATIONS OF MATH**

This course is designed for SLIFE (Students with Limited or Interrupted Formal Education) students and includes introduction to whole numbers, operations of whole numbers, exponents, graphs, statistics, measurements, integers, introduction to fractions, and operations of fractions. Problem solving will be part of all units.

**Pre-Reqs:** Placement test

### **XM100 | SE | PRE ALGEBRA**

This course is intended to ELL students who have low Math skills and no or limited English skills. The course begins to address the grades 9-10 Learning Standards of the Massachusetts Curriculum Frameworks. Students will review fundamental math skills and learn the concepts needed to be successful in Algebra 1. Units of study include basic operations with whole numbers, integers, fractions, decimals and percent, ratio and proportion; order of operations, variable; and evaluating expressions. Students will be introduced to place value, positive and negative numbers, linear equations; algebraic expressions and polynomials; also basic concepts of geometry and statistics (different types of graphs and calculations of mean, median and mode). This course involves students in active learning in order to build understanding of the very basic math concepts. **Grades:** 9, 10 **Pre-Reqs:** Placement test

### **XM101 | SE | ALGEBRA 1**

This course helps ELL students develop both English language skills and Math problem solving skills. The course will address the grades 9-10 Learning Standards of the Massachusetts Curriculum Frameworks. The learning standards that will be covered are number sense and operations; patterns, relations and algebra; data analysis, statistics, and probability; as well as selected items from the geometry and measurements learning standards. The course will include the use of concrete, connecting, and abstract instructional methodologies and curricula. Technology will be used to provide students with the opportunity to explore, model and analyze. The course will be designed to involve students in active learning, inquiry based problems, and problem solving strategies to build conceptual understanding. The focus of this course is to strengthen students' abilities to think, reason, and problem-solve using mathematical understandings and skills. **Grades:** 9, 10, 11 **Pre-Reqs:** Placement test

### **XM201 | SE | GEOMETRY**

This course is the second year of the High School Mathematics Program which integrates previously learned algebraic concepts with newly learned geometric concepts. This course strives to apply abstract geometry content to real world scenarios by investigating new content and practicing problem solving skills. The essential elements of this course are basic tools of geometry, understanding measurements and properties of circles, polygons, and polyhedrons, how these shapes can be manipulated and transformed, and MCAS preparation including algebra review and data analysis. The use of manipulatives, hands on projects, and the computer technology will provide students with the opportunity to explore, model, and analyze the concepts presented. This course helps ELL students develop both English language skills and Math problem solving skills. **Grades:** 10, 11 **Pre-Reqs:** Algebra 1 or Placement test

### **XS100 | SE | PRE PHYSICS**

SEI Pre-Physics is a science course which addresses the needs of ELL students who have limited science skills or are beginner ELL students. It covers the steps of the scientific method, SI units, unit conversions, and introduces the branches of science. Hands-on experiments and projects are used throughout the units in order to get the students acquainted with laboratory science, and to promote language skills through group work. Scientific language and reading skills are stressed throughout in order to prepare ELL students for SEI Physics. This course develops the skills necessary to solve mathematical and conceptual scientific problems. **Grades:** 9, 10 **Pre-Reqs:** Placement test. This course does not fulfill the Physics requirement.

### **XS101 | SE | PHYSICS |**

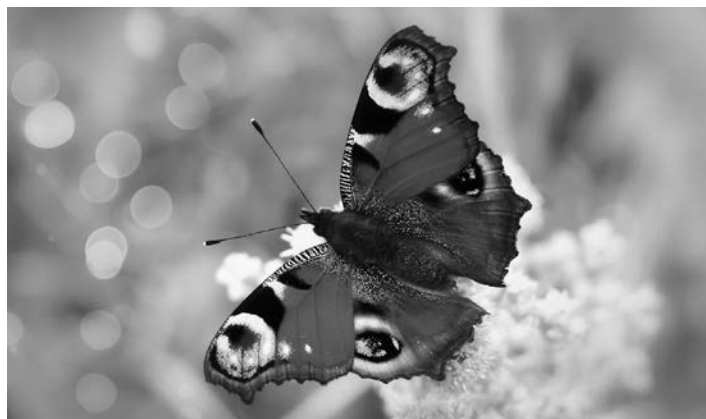
The SEI Physics curriculum parallels the mainstream Physics First course and is offered to ELL students of 9th-12th grades. Scientific language and reading skills are stressed throughout in order to prepare ELL students for standard curriculum science. This course develops the skills necessary to solve mathematical and conceptual scientific problems. The curriculum is split into four major units: Motion, Electricity, Waves, and Energy. In the first unit, students will study velocity, acceleration, Newton's Laws, and momentum. The electricity unit will focus on electrostatics, charge and circuits, culminating in a project. During the third unit, students will study waves, sound, and light. In the final unit, students will study heat and energy. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Placement test

### **XS201 | SE | CHEMISTRY**

The SE Chemistry curriculum parallels the mainstream Chemistry course and is offered to ELL students of 9th-12th grades. Scientific language and laboratory skills are stressed throughout in order to aid ELL students' understanding of complex conceptual topics. This course builds on the skills developed in Physics and further develops the skills necessary to solve more complex scientific problems. The curriculum is split into seven major units: Introduction to the methods of Chemistry, Atomic Structure, Bonding, Chemical Reactions, Moles, Stoichiometry, and Gases. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Physics or Placement Test

### **XS301 | SE | BIOLOGY**

The SE Biology curriculum parallels the mainstream Biology course and is offered to ELL students of 11th-12th grades. Scientific language and laboratory skills are stressed throughout in order to aid ELL students' understanding of the principles of Evolution and Ecology, Homeostasis, Energy, Matter, Organization, Reproduction and Genetics. **Grades:** 11, 12 **Pre-Reqs:** Physics and Chemistry



# English Language Arts

**Expectation:** All CRLS students will acquire the skills to read for information, understanding and enjoyment. Students will be exposed to a variety of genres using mentor texts and explore personal interests during independent reading to develop a culture of lifelong readers. Students will write in a variety of styles with a focus on structure, vocabulary, and writing mechanics. In addition, students will also engage in a variety of discussions and oral presentations, as well as research and reasoning tasks, and the research process.

To prepare students for college and workforce training, all classes will focus on comprehension and composition of informational, literary, and persuasive texts, as well as on speaking, listening, research, and critical reasoning skills.

To prepare for life in a technological society, students will interact with digital resources and engage in on-line assessments.

**Description:** In Grade 9, students are required to take English 9. This course is required for graduation and is offered at the Honors level only. This course meets every other day, opposite of World History, for the entire year.

In Grade 10, students are required to take English 10 for graduation. Students earn honors credit in this course by achieving the honors criteria on benchmark assignments and exams. This class runs for one semester.

All 11th grade students are required to take English 11 or participate in a dual enrollment class through Bunker Hill Community College. Either course is a requirement for admittance into Advanced Placement level courses.

Colleges and universities require students to earn 4 units of English as an entrance requirement and it is a requirement for graduation. Therefore, in Grade 12, students may choose one of the many English Elective classes, an AP class or a BHCC Dual Enrollment class to fulfill this requirement.

Each course in the ELA sequence from grades nine through twelve is designed based on the Massachusetts/Common Core Frameworks and to prepare for students for college, work, and the world beyond high school.

## E102 | HN | ENGLISH 9

In this course, students will explore how characters and people form their identities. Through their studies, students will develop reading, writing, critical thinking, and research skills. They will expand their reading skills by learning how to make inferences, ask questions, and annotate texts from a variety of genres. Students will learn concepts and strategies to increase their comprehension. They will complete all stages of the writing process, practice Standard English conventions, and demonstrate their mastery through a variety of assessments. Students will document and evaluate their progress as writers through self-reflection and conferencing. Using a variety of on-line applications and resources, students will enhance their 21st Century technological skills. **Grades:** 9

## E202 | ENGLISH 10

In English 10 (earned honors), students will discuss and analyze literature, poetry, plays, and informational texts representing a variety of identities and themes. English 10 is designed to help students develop in a safe and stimulating environment as readers, writers, critical thinkers, and communicators. All students will be expected to work independently, in groups, and as a whole class.

In this intensive course, students will explore the following essential questions:

- What is the power of belonging?
- How does belonging both create and confine our individual identities?

The course prepares students to meet the increasingly rigorous reading, writing, and thinking demands of future college classes. Students will further develop their love of literacy by reading their own independent book choices as well as analyzing shared class mentor texts. Students will read as writers by studying the craft of diverse authors; they will research, write creatively, think critically, and develop thesis-driven arguments.

Communication, vocabulary, grammar, and reading strategies as well as MCAS preparation instruction will be embedded throughout the course.

**Grades:** 10 **Pre-Reqs:** English 9

## E302 | ENGLISH 11

Students will explore traditional & contemporary literature from around the globe by reading the works of notable authors. Through a variety of genres including poetry, short stories, fiction, nonfiction, and drama, students will explore the following themes: individual freedom; the conflict between conscience and conformity; class and alienation; and oppression. Students will continue to develop their critical reading skills and express their ideas in writing and refine their voice, style, and purpose as writers, particularly in the college essay. Students will continue to document and evaluate their evolving skills as readers, writers, and thinkers. Teachers will integrate instruction of Standard English conventions, writing development and SAT preparation throughout the course. **Grades:** 11

#### E405 | HN | JOURNALISM 1

Students will learn the basic elements of a news story, study landmark court cases in the history of the free press, examine bias in the media, assess writing for fact and opinion, and understand the roles and responsibilities of a journalist in a democratic society. Students will also discuss current events and issues making the “headlines” on a local, national, and international level. Lastly, students will collaborate on investigative journalistic projects, improve their research writing skills, and contribute articles to the school newspaper, The Register Forum.

**Grades:** 10, 11, 12 **Pre-Reqs:** English 9, 10

#### E406 | HN | JOURNALISM 2

Are you interested being an editor for the school newspaper? Building on skills acquired from Journalism I, students will learn how to successfully collaborate and run every aspect of The Register Forum, one of the oldest student-run publications in the country. Students will generate news stories, edit articles, democratically decide what is printed, write editorials, create special segments, and interview CRLS students, faculty, and members of the community. A significant portion of this class is also about graphic design, digital layout, and photography. Lastly, students will be fully involved in the printing, advertising, and distribution process. **Grades:** 11, 12 **Pre-Reqs:** Journalism 1

#### E409 | HN, GSC | AFRICAN LITERATURE

Honors African Literature provides students with an opportunity to study literary works from specific countries from the continent. The course opens with the study of the complex concept of identity. Students analyze select memoir excerpts by African authors such as the late Philippe Wamba and Binyavanga Wainana. Throughout the course students explore the psychological effects of patriarchy and colonialism through the analysis of literary works such as Tsitsi Dangarembga’s *Nervous Conditions*. Students also move beyond fiction and research the cultural and political background of specific countries such as the Algerian War and the Biafran War to better understand the literary works. Throughout the course, students continuously re-examine Chimamanda Adichie’s *A Danger of A Single Story*; and Binyavanga Wainaina’s *How to Write About Africa*.; Students also have the opportunity to analyze one independent reading novel such as Chimamanda Adichie’s *Half of a Yellow Sun* or Fauziya Kassindja’s *Do They Hear You When You Cry* from our library collection. As students read and analyze their own chosen work, students read African poetry and short poignant excerpts from writers such as Chinua Achebe’s *Things Fall Apart* and Ben Okri’s *A Famished Road* to examine the concept of the spirit world from various Nigerian ethnic groups. Finally, students have the pleasure of taking a peek at the wide world of African theatre by reading and analyzing wa Thiong’o’s *The Black Hermit* to explore the reality of independence; and colonial wounds and legacies. Throughout the semester, various visitors from the African continent come to share their thoughts and insights with our class. Thanks to the support of the Boston University African Studies Program and the generosity of parents, students are able to hear the voices and views of artistic and scientific professionals from the continent. **Grades:** 11, 12 **Pre-Reqs:** English 9, 10, 11

#### E414 | HN | COLLEGE WRITING

This course is an Honors level introduction to college writing. Students will develop skills in expository, analytical, creative, and persuasive writing. They will learn research skills and become familiar with the MLA guidelines used in college writing. Students will write first drafts and learn to revise and edit until they produce a paper that is well organized and reflects their understanding of the topic. Looking at purpose and audience, while developing style and content, will allow students to expand their perspectives and create responses reflecting various purposes, ideas, and opinions. **Grades:** 12 **Pre-Reqs:** English 9, 10, 11

#### E416 | CONSPIRACY THEORIES IN LITERATURE

In this course, students will investigate conspiracies and mysteries in popular fiction and history. They will investigate both fictional and real-life conspiracies and mysteries. Students will view footage and read news articles in addition to reading mystery novels. Finally, students will choose their own conspiracy theories or mysteries to explore. They will conduct research independently and in teams, and they will present their findings to their peers. Students will earn Honors credit based on performance **Grades:** 12 **Pre-Reqs:** English 9, 10, 11

#### E418 | HN | UNDERSTANDING MOBY-DICK: AN IN-DEPTH STUDY OF AN AMERICAN CLASSIC

An undisputed American classic, *Moby-Dick* is often touted as the greatest of all American literary achievements. The epic story of the white whale and obsessed sea captain thirsting for revenge has become part of the American mythos, and the metaphysical ruminations of the narrator Ishmael serve as a launching pad to examine topics pertaining to (among others) philosophy, psychology, ecology, and social justice. Throughout this course, students will engage in an in-depth study of Herman Melville’s masterpiece, exploring influences, themes, motifs, symbolism and impact. Over the semester, there will be opportunities for travel around New England; possible locations include Mystic Seaport, the New Bedford Whaling Museum, the Nantucket Whaling Museum, and Arrowhead farm, where Melville originally wrote *Moby-Dick*.

**Grades:** 11, 12 **Pre-Reqs:** English 9, 10, 11

#### E419 | EXAMINING THE WORKS OF ALFRED HITCHCOCK

There is arguably no filmmaker more innovative with or thoughtful about his work than Alfred Hitchcock. A master of suspense, Hitchcock created critically acclaimed films to thrill and terrify, inventing entire genres of cinema along the way. Throughout this course, students will spend their time dissecting Hitchcock’s cannon, tracing his influences, critiquing his technique, and exploring his impact. Class discussions will revolve around analyzing the psychology of Hitchcock’s characters, as well as examining the various themes and motifs that appear throughout his films. Course texts include the extensive series of interviews Hitchcock conducted with French director Francois Truffaut, along with different works pertaining to film theory. Students will earn Honors credit based on performance **Grades:** 11, 12 **Pre-Reqs:** English 9, 10





#### **E420 | HN OPT | HARRY POTTER AND THE CURSE OF SOCIETY**

How does the *Harry Potter* series reflect, perpetuate, and conflict with societal norms and identity construction? By focusing on the first five books of the series, assorted contemporary articles, fiction, essays and other multimedia, students will discover the connection this highly popular modern literature series and ever-broadening extended universe has with cultural standards both past and present. Through student-driven projects and creative and academic writing assignments, this course will be an in-depth look into the kinds of identity politics that foster prejudice and nationalism, whether in the fictional world or in ours. Using the primary texts, students will engage in a critical-thinking exploration of the education system, identity, prejudice, labels, literary tropes, and how to articulate how a literary work can impact and create deep personal and social significance. **Grades:** 11, 12 **Pre-Reqs:** ELA 9 & 10

#### **E427 | HN, GSN | LITERATURE IN RELIGION**

How are different religions understood? How important is it that they be understood? Students will explore the idea of religion and spirituality. They will develop some basic understandings of five world religions: Hinduism, Buddhism, Judaism, Christianity, and Islam. Students will examine articles, textbook selections, religious texts, short stories, poems, and novels in order to formulate ideas about what it means to be part of these religions, or to live in societies shaped by the beliefs and institutions of particular religions. **Grades:** 11, 12 **Pre-Reqs:** English 9, 10

#### **E429 | MUSIC AS LITERATURE**

This course aims to investigate and establish musicians as authors and their music as texts. Using *Beyonce's Lemonade*, Kendrick Lamar's *To Pimp a Butterfly*, J. Cole's *4 Your Eyez Only*, Amy Winehouse's *Back to Black*, and student suggested musicians and their works, we will examine the legitimacy of music as a source of possible literary criticism. The course will also explore the significance of music during protest with a focus on the Civil Rights and Black Lives Matter movements using authors such as Nina Simone, Aretha Franklin, N.W.A., and H.E.R. This is a course intended for music lovers and requires a willingness to explore genres of music beyond one's own immediate preferences. Just as every person's story is different, so is the manner in which music affects their lives. **Pre-Reqs:** English 9, 10

#### **E430 | FUTURE SHOCK: DYSTOPIAN FICTION**

In this course, students will examine classic and contemporary examples of science-fiction texts which focus on the concept of dystopia: an alternate reality or futuristic society in which life is supposed to be wonderful, but instead has been corrupted. Students will examine how authors use this genre of literature and film to analyze and critique certain elements of their own worlds, such as politics, environmental and social issues, technology, religion, and more. Students will read a combination of classic novels and short stories, watch and analyze films, and create products which reflect their analysis of contemporary society. This course will ask students to push beyond pop culture to examine pressing topics and grapple with these issues. Students will earn Honors credit based on performance **Grades:** 11, 12 **Pre-Reqs:** English 9, 10

#### **E431 | HN | AFRICAN AMERICAN LITERATURE**

Through reading challenging and thought-provoking texts from the canon of African-American literature, students will develop their ability to discern the attributes of quality writing. They will read texts by authors such as Frederick Douglass, Harriet Jacobs, Ralph Ellison, Assata Shakur, Toni Morrison, and Barack Obama. By analyzing thought-provoking texts on the African-American experience/s students will express and develop their views about key past and present sociological issues. They will develop their ability to communicate insightful responses to key themes in African-American literature. Students will continue to develop skills in expository, analytical, creative, and persuasive writing. They will reinforce research skills and incorporate the MLA guidelines used in college-level English classes. Students will collect their writings from a range of genres in an English Language Arts Portfolio which will document their growth as writers, readers, and thinkers. **Grades:** 11, 12 **Pre-Reqs:** English 9, 10, 11

#### **E436 | HN | PSYCHOLOGY AND LITERATURE**

In this class, we will use psychology and literature to explore some of the most pressing questions of our time. Questions like: what makes ordinary people go along with evil acts? What makes ordinary people resist evil acts? How do technology and social media impact human relationships and mental health? In our quest for answers, we will look to articles, novels, short stories, historical documents, current events, psychological studies, and media like podcasts and films. We will also constantly check in with our own thoughts and habits, and approach our own minds as another fascinating "text" worthy of study. Among other projects, everyone will design and carry out their own psychological experiment. **Pre-Reqs:** English 9, 10 & 11

#### **E445 | HN OPT | IMMERSION JOURNALISM**

Two kinds of journalism have emerged in recent years. The first is called variously called experiential writing, deliberate living, Walden in the city, and immersion journalism. To write this brand of nonfiction, the authors live deliberately and differently for a period of time, immersing themselves in a new experience. By venturing into the unfamiliar, they can then look at things with new eyes and write in innovative, immediate ways. For this class the student will start to use their life as an experiment. What if, for a period of time, you withdrew from the internet? Gave up your cell phone? Abstained from sugar? Stopped looking at mirrors? Kept a gratitude journal? Meditated? Followed Thumper's Rule and only said kind things? Spent regular time in nature? Stopped buying anything that would end up in a landfill? Went carbon neutral? Students will do these experiments as a whole class and by individual design. Each experiment will include research on the topic as well as the personal endeavor, and all will accumulate in thoughtful essays about these forays into deliberate living. The second type of journalism is the documentary about an important social issue. Students will view such documentaries, discuss the issues presented, and study the techniques used by the documentarians. Students may then have a chance to produce a short documentary of their own. **Grades:** 12 **Pre-Reqs:** English 9, 10

#### E446 | HN OPT | STATISTICS & SOCIETY: HUMANITIES

Every day we are surrounded by claims of all kinds. This course helps students to see why a given claim is being made, and what the conditions, parameters, influences, contexts, and goals are that guide the argument. As students come to understand the construction of claims and their persuasive elements, they will be able to further understand how to utilize and manipulate data to increase the soundness of their own claims. Ultimately these new understandings will be employed in their mathematically-based writing projects. The underlying goal is to continually explore and articulate personal beliefs and to defend them using sound statistical analysis, while allowing those beliefs to shift and change as students participate in robust discussions. Major themes will include Education, Gender and Race, Language and Literacy, Popular Culture, and Politics and Satire, and these themes will be analyzed using one- and two-variable statistics and facts about polling and sampling. This course needs to be taken along with Statistics & Society: Math (M417). By taking both classes, students will earn 10 credits in Math and 10 credits in ELA. **Grades:** 12 **Pre-Reqs:** Passing grades in ELA 9, 10, and 11 & Algebra II. Students must also take Statistics & Society: Mathematics (M417)

#### E450 | DETECTIVE FICTION

What elements does a piece of literature need to possess in order to be considered a true “detective fiction” story? What qualities does the traditional detective have, which often speak about the politics and societal ideals of the time period? Students will explore the detective character from the mid-19th century to the modern day, and think critically about what consistencies are present throughout the genre. They will also analyze various text sets throughout the character’s existence in the form of short stories, memoirs, case studies, and more! Students will earn Honors credit based on performance **Grades:** 11, 12 **Pre-Reqs:** ELA 9, 10 and 11

#### E465 | HN | PHILOSOPHY

Is free will as real as it feels? Why does every utopia seem to turn into dystopia? What role should art play in society? Is our reality singular or are we one thread in an endless quilt of interwoven universes? What are schools for? How can we reconcile a world full of seemingly conflicting truths? This course will bring students together to explore classical, modern and contemporary philosophy from around the world through cooperative debate and Socratic dialogue. With a strong emphasis on reading, discussion and writing, this course will offer students the opportunity to take on high-level texts and challenging philosophical questions in a supportive classroom environment. We will use inquiry and analysis to brave the depths of human thought throughout history and the deepest reaches of our own minds in search of lessons to apply to the pursuit of a more authentic life. Through dialogue and writing, we will practice responding to and processing questions of morality, love, beauty and justice posed by artists, philosophers and our peers. As a class, we will create a space to express new ideas and develop our insights into written work through peer feedback. Students should come prepared to listen, engage, develop ideas of their own, and participate in a collaborative process of world-building. **Grades:** 11, 12 **Pre-Reqs:** ELA 9, 10, and 11

#### E470 | POEMS TO CHAPBOOKS: A SEMESTER-LONG POETRY WORKSHOP

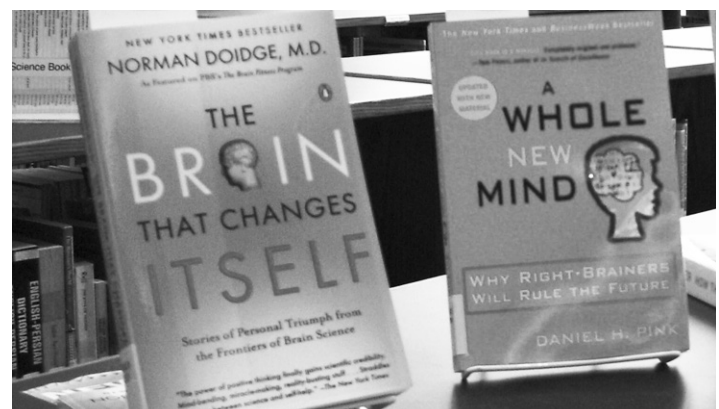
This course is intended for students who already have an interest in writing and reading poetry. Over the course of the semester, students will hone their poetic craft by creating a chapbook, or short poetry collection. Chapbooks are frequently the first single-author volumes published by poets, a bridge between writing individual poems and writing a full-length book. Chapbooks are structured in the same way as full-length books, but typically range from 15 to 25 pages in length. In the course students will workshop their existing poems, and write new ones, towards the creation of their own chapbook. Students will earn Honors credit based on performance **Grades:** 11, 12 **Pre-Reqs:** ELA 9 and 10

#### E475 | THIS IS AMERICA: STORIES OF IMMIGRANTS

In this course, we will read the rich stories of first, second, and third generation immigrants and how they find their identity and sense of belonging in America. Selected texts will include autobiography, fiction, short stories, and poems and will cover the lives of immigrants from various countries and time periods. We will analyze and compare the experiences of different generations of immigrants and how they define citizenship and belonging. We will also compare the varying perspectives and attitudes toward America and what the country symbolizes to people before and after they immigrate. Students will show their understanding through various writing activities, group discussions, and presentations. Texts may include: *Americanah* by Chimamanda Adichie, *The Book of Unknown Americans* by Cristina Henriquez, *Interpreter of Maladies* by Jhumpa Lahiri, *Dear America, Notes of an Undocumented Citizen* by Jose Antonio Vargas, *Small Shame Blues* by Dan Vera, *The Unwritten Letter From My Immigrant Parents* by Muna Abdulahi, *A Palestinian Might Say* by Naomi Shihab Nye, *Names* by Teresa Mei Chuc, *Choi Jeong Min* by Franny Choi and *My Tongue is Divided into Two* by Quique Aviles. Students will earn Honors credit based on performance **Grades:** 11, 12 **Pre-Reqs:** English 9,10 and 11

#### E476 | ENVISIONING OUR FUTURE SELVES WRITING COURSE

The Envisioning Our Future Selves Writing Course will give students an opportunity to reflect on their future selves in the personal, academic, and professional spheres. Through rich discussions, reading various articles and selected autobiographical pieces, students will reflect on their personal, academic and professional journey, past, present and future. In addition, visiting guests will share their experiences to give students a real glimpse into life after graduation. As students reflect on their future lives, they will be able to interview college students, professional guests and start planning their lives after Cambridge Rindge and Latin. Through the interviews and writing reflections, students will build their communication skills and writing skills. **Pre-Reqs:** English 9, 10 & 11



### E477 | PROTEST & POWER - BLACK LIVES MATTER

This semester-long, interdisciplinary course in English & History will examine the roots and modern-day dimensions of the Black Lives Matter (BLM) movement. Not only will we study the history behind BLM, but we will use its principles as lenses through which we think critically about our world - past and present. The course will begin with an exploration of our own communities, a conversation about allyship within these communities, and an investigation into the changes that BLM founders demand.

Using critical reading, writing, and thinking skills, our community will dive into questions of representation, values, and legacies that exist all around us. We will examine key texts, including fiction, nonfiction, film, music, and media of the BLM movement as the cornerstones of our work together. That being said, students and staff will collaboratively develop the content and direction of the course, including a community action project at the end of the semester. **Pre-Reqs:** ELA 9, 10 & 11

### E478 | COMIC STUDIES: EXPLORING COMICS & SEQUENTIAL ART

Calling all aspiring graphic novelists! Over the last three decades, the field of graphic storytelling has increasingly become the subject of critical acclaim. Using industry texts by writers and artists such as Scott McCloud and Will Eisner as a guide, this course will examine some of the major achievements in the field, including Maus, Persepolis, and Watchmen. Students will focus on history of the field, apply literary theory to different works, explore symbolism, analyze themes, examine sub-genres within the medium, and debate the future outlook of the graphic format. Students will also spend time creating both the artwork and storylines for their own graphic project. The classes are split between the study of graphic novels, and the artistic creation of original work; as a culminating product, students will demonstrate the product of their creative space and freedom with the publication of their own original graphic novel. **Grades:** 12 **Pre-Reqs:** ELA 9 & 10

### E541 | AP | ENGLISH LITERATURE AND COMPOSITION

Through the use of Critical Theory, this course will allow students to read, write, and think analytically about major works of literature. Works studied during this course will provide students with a diverse and thorough examination of society's past, present, and future. This course is designed for students eager to engage with and passionate about literature. Students should have strong analytical skills and be willing to meet the challenge of difficult reading and writing assignments. Students will learn how to recognize common literary devices to interpret literature, how to write literary analysis essays that conform to standard formats, and how to apply close reading skills and critical theory lenses to the interpretation of various texts. Students must complete pre-course assignments available on the school's website. **Grades:** 12 **Pre-Reqs:** English 9, 10, 11. Students must have earned a grade of B or better in HN English 11 or be recommended by their grade 11 ELA teacher

### E542 | AP, GSC | ENGLISH LANGUAGE AND COMPOSITION

In a sense, everything is an argument. When we speak, when we write, when we create art, and when we interact with the world we are always making appeals about who we are and what we want. This course helps students to see why a given argument is being made, and what the conditions, parameters, influences, contexts, and goals are that guide the argument. As a crucial form of intellectual self-defense, students will understand the construction of an argument and what makes it persuasive. By developing this skill, they will be able to understand what makes a sound argument, as well as the techniques of manipulation. Ultimately these new understandings will be employed in their own writing. The underlying goal is to continually explore and articulate personal beliefs, while allowing those beliefs to shift and change as students participate in robust discussions. Students must complete a pre-course packet for this course. Pre-course packets can be found on the CRLS home page. All students enrolled in this course are required to take the AP English Literature and Composition exam. **Grades:** 11, 12 **Pre-Reqs:** English 9, 10, 11. Students must have earned a grade of B or better in HN English 11 or recommendation by their grade 11 ELA teacher.

## Enhanced Senior Year Program (EYS)

By engaging in Enhanced Senior Year opportunities, students will

- apply the content-area knowledge gained through the CRLS academic program as well as through their participation in extracurricular activities;
- strengthen the important 21st century skills necessary for success after high school, including project management, communication, collaboration, digital media literacy, and civic literacy
- become more prepared to participate fully and responsibly as young adults in their communities.

EYS Projects are meant to highlight academic gains, but equally important is the demonstration of a "learning stretch" that takes place as a result of the project. While students will be drawing from their unique skills, talents, and interests, projects must challenge and push each student to learn new skills.

### Y000 | HN | SENIOR INTERNSHIP

The CRLS Senior Internship offers meaningful work and learning experiences aligned with students' academic interests and achievements; and provides opportunities for 21st century career exploration. The program comprises two components: an off-site internship placement and a classroom seminar. Internship placements vary according to each student's interests and abilities. Past sites have included locally owned businesses, university research centers, and non-profit organizations. These are unpaid internships that happen during the school day, for school credit. All interns participate in the GoodWork Seminar. **Grades:** 12 **Pre-Reqs:**

### Y000B | HN | GOODWORK SEMINAR

The purpose of the seminar is to provide students with opportunities to reflect on, share, document, and learn from the internship experience. Through readings, discussions, and research, including case studies from the GoodWork Tool Kit (developed by Project Zero at the Harvard School of Education), the seminar group will explore what it means to do good work that is “ethical, excellent, and engaging”. Students create and present an extensive portfolio of their work that highlights their experiences and accomplishments. Participants also engage in a number of “work readiness” workshops. Interested students must be independent, reliable, and have demonstrated the commitment to portray to the community a positive image of the CRLS student. Applications are available from Ms. FitzGerald (kfitzgerald@cpsd.us) and from the Guidance Department.

### Y002 | HN | TEACHING ASSISTANTSHIP

The CRLS Teaching Assistant Program deepens the work of students acting as Teaching Assistants in CRLS classrooms. Qualified Student TAs strengthen their content skills and begin to explore the teaching profession by assisting the supervising teacher with classroom duties and through the development of a lesson plan and presentation. Student TAs complete a weekly log and collaborative reflection forums on Moodle. They are supported to complete a final inquiry project based on their experience. A passion for teaching and/or the subject, as well as permission of the instructor and guidance counselor are required. This program is open to juniors and seniors who have passed the TA class assignment with a B+ or better.

### Y003 | HN | HONORS SENIOR THESIS

A senior thesis is an extensive, independent research project that demonstrates advanced research, writing, and subject mastery skills. Students work closely with a faculty advisor and choose a question or topic to explore in depth, following discipline-specific research methods. As a culminating work, a Senior Thesis exhibits rigorous and interdisciplinary thinking, knowledge, and understanding. The final Senior Thesis product includes an oral presentation and a college level paper.

### Y004 | HN | INDEPENDENT GRADUATION PROJECT

The HN Independent Graduation Project Program allows motivated, responsible and self-directed learners to pursue a community-based research project that reflects a personal passion. Interested students must submit a formal proposal detailing the inquiry and idea they will explore, as well as what they plan to make or do as a result of or in conjunction with their research. Students must identify and work with a Community Partner, develop a portfolio of their work, and make a formal presentation. An Independent Graduation Project demonstrates a student’s proficiency in Academic, Social and Civic Learning Expectations.

# History & Social Science

**Expectation:** A CRLS student communicates as a writer and speaker.

**Description:** The **current 6th - 11th grade** sequence for History and Social Science is as follows: 6th - World Geography and Ancient History, 7th - World Religion, Philosophy and Government, 8th - Civics, 9th - World History, 1880-present, 10th - Critical Issues in United States History, 11th - Choose from one of thirty electives.

In **grade 9**, students will take World History, 1880-present. This course is required for graduation and is offered at the Honors level only. In **grade 10**, students will take Earned Honors Option Critical Issues in US History; this course is also required for graduation. In **grade 11**, students choose at least one History or Social Science elective to meet the basic graduation requirements. Many colleges and universities require students to earn 4 units of History and Social Science as an entrance requirement, so seniors are encouraged to take another history elective or explore other areas of the social sciences.

### H202 | HN | WORLD HISTORY

Honors World History is an inclusive and culturally responsive course offered to all 9th graders at CRLS. Key questions that guide the course are connected to what causes conflicts between groups and nations and when, if ever, is violence justified. The course begins with a study of the causes and consequences of imperialism by examining case studies in Africa and Asia. Students will then explore significant military and economic events of the past century including World War I, the Interwar period, and World War II. Lastly, students will analyze the impact and legacies of the Cold War on nations around the world. Throughout the course, students will collaborate in inclusive and respectful ways, and will develop critical thinking skills to challenge assumptions and make connections between today and the past. **Grades:** 9

### H290 | HN OPT | CRITICAL ISSUES IN UNITED STATES HISTORY

Critical Issues in United States History explores the growth of the United States from the colonial period through the present day. Students explore major themes in American History, including how race, class and gender have impacted economic, political and social development, and the role that the United States has played on the global stage. Students consider the tension between growth and human rights by exploring conflicts from colonial America through the present. They deepen their understanding of the role of the Declaration of Independence and the Constitution in unifying (and dividing) the country, considering the Civil War, Reconstruction, and 20th and 21st century struggles for civil rights. Students explore relationships between labor and capital and debate the role that the government should play in the economy. This is an earned Honors class. All students will participate in common assessments and earn Honors credit based on their performance. Honors credits will be designated upon completing the course. **Grades:** 10 **Pre-Reqs:** World History

#### H403 | HN | PSYCHOLOGY

This is an introductory course on the study of individual human behavior and experience in society. This course will guide students to explore the content, terminology, methodology, and application of this discipline to understand and improve oneself and society. The course will explore four (Identity, Violence and Obedience to Authority, Nature and Nurture, and Psychopathology) concepts, with a 3-step process to develop a comprehensive analysis: (1) introduction, (2) application, and (3) reformation. Applying personal, interpersonal, and aged and modern societal examples, this college-level course will explore and critically challenge human thought. **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History

#### H406 | HN | SOCIOLOGY

This course offers students an introduction to the study of sociology with a focus on the role of social institutions and social forces in creating and maintaining social inequality or inequity in the United States. Using an introductory sociology textbook, various forms of media, and numerous sociological articles, students will have the opportunity to learn some of the basic principles behind the science of sociology and its application to the community around them. The course will culminate with a comprehensive research project and presentation in which students apply their learning to their community. **Pre-Reqs:** World History and Critical Issues in US History

#### H407 | HN OPT | CRIMINAL JUSTICE (HN OPT)

This course offers a “hands on” approach to legal realities encountered in and out of courtroom situations, as you study criminal matters involving persons and property within the U.S. legal system. Students will examine and analyze various cases ranging from the *Miranda v. Arizona*, *Furman v. Georgia* to a few current cases coinciding with previously established Criminal Law units. Students will learn to apply legal terms to real-life cases examined. Students will engage in cooperative learning activities that augment critical thinking skills, lending itself to meaningful discussion. Students will meet with various professionals in law-related work. Students will develop skills in persuasive and reflective writing. Research assignments, including the construction of a formal paper and projects on various law related topics, are required. **Pre-Reqs:** World History and Critical Issues in US History

#### H409 | HN OPT | AFRICAN-AMERICAN HISTORY (HN OPT)

This course begins with an exploration of the roots of African American culture in the traditions and institutions of African societies. The evolution of African American institutions as well as the contributions and influence of black politicians, scientists, authors, teachers will be explored. Later coursework transitions into mid twentieth century history including the Harlem Renaissance, the Great Depression, and other major eras with emphasis on current events that relate to particular topics. You will be required to read historical documents, take notes, write historical essays and complete at least one historical research paper. **Pre-Reqs:** World History and Critical Issues in US History

#### H415 | LEADERSHIP AND COMMUNITY ACTION-STARs

The STARs course is designed to provide students with a comfortable arena to discuss, debate and honestly confront contemporary issues affecting their lives. Topics include cultural diversity, global awareness, healthy relationships, personal identity, school and community culture and climate, stereotyping, substance use, teen violence and teen wellness. Students will receive leadership and issues training opportunities so that they can work as peer educators in the high school and the elementary and upper schools. As a part of this class, students will learn the skills to create and implement a unique project that shows their understanding of the course content and highlights their interests and ideas. In addition to their work in classrooms, the STARs conduct awareness campaigns and host, organize, and design school wide assemblies and conferences. As members of the STARs program, students are expected to uphold the school motto and reinforce attitudes and behaviors that promote awareness, equity and student engagement. This course may be taken for Wellness credit. (CIV) **Pre-Reqs:** World History, Critical Issues in US History, and prior approval of the STARs Teacher.

#### H419 | HN OPT | BLACK AMERICAN EXPERIENCE (HN OPT)

This course will examine the study of Black Americans from a thematic approach. Four units will be addressed. The course begins with an examination of Black culture. Students will begin to think about: What defines Black culture? How has Black culture been shaped by external factors? How has it influenced the wider culture? Students will study speeches and written work that address issues of race, oppression and perseverance. The second unit explores Black Music over time stemming from Slave Work Songs to Hip Hop culture. Students will analyze and research the origin of the music and its impact. The third unit will analyze Race, Reform and the Civil Rights movement during the 1950s-70s from the South to the North. The third unit will emphasize black political and social leadership from the Civil Rights Movement to today’s movements such as Black Lives Matter. Students will evaluate how Black leadership has changed over time. Students will also examine changes taking place in South Boston, MA in relation to mandated busing and the reaction. The final unit focuses on Blacks in Media. Students will compare and contrast the roles Blacks play in various television programs and films. The course will culminate with an independent project. **Pre-Reqs:** World History and Critical Issues in US History



#### H420 | SCHOOLS: LIBERATION OR OPPRESSION?

*We all have to go through school, but have you ever thought about why it is set up the way it is or who it benefits most?* Schools, they can be places that hold the promise of lifting us up and liberating society from oppression. Many revolutions around the world have been started on school grounds, by students. But, schools can also be places that recreate the same oppression outside it's walls. In this class we will study why that is and how school can better serve as a place of liberation, starting with you. Key components of the course require that the class share it's knowledge in two unique & creative ways during the semester, as well as planning a campaign to reform the Cambridge Public Schools in a meaningful way. One of the things often missing from American schools is educators of color and that's where you come in. As a student in this class, you are also committing to explore a career in education and serving the Cambridge community in the future. This course requires fall and spring semester commitments; the fall semester will be for our course and the spring semester will be an opportunity for you to student teach in CPS classrooms at elementary and upper schools. (CIV) **Grades:** 11 **Pre-Reqs:** World History, Critical Issues in US History, and approval by Dean of Curriculum after application process.

#### H421 | ECONOMICS

This course is a project- and writing-based introduction to “thinking like an economist,” and applying tools of microeconomic analysis to local, national and international issues. Students will consider the connections between a free market economy and the role of government; an ongoing analysis of race and gender in economic history and patterns; money, credit and the role of financial institutions; government regulation; the relationship of money and speech, and topics that arise from student interest. Students will consider economic reasoning made by people as consumers, producers, savers, investors, workers, voters, and government agencies to examine society's allocation of scarce resources. The role of incentives, externalities, and supply and demand in managing scarcity will lead into the study of macroeconomics around trade, monetary policy, employment and inflation. In addition to examining the traditional content of economics, students will participate in a three week long Urban Plan project in which they will be asked to develop a five and a half block portion of a city. Working as a team of five, students will ultimately defend their final project in front of a team of volunteers who work in the field of land development. **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History



#### H422 | MODERN GLOBAL CONFLICTS

Modern Global Conflicts is a course designed to explore the forces and dimensions of contemporary global issues and conflicts. In addition to examining the roots and consequences of contemporary conflicts, we will also learn about people, groups, and organizations working for direct, structural, and cultural peace in their communities and beyond. The course will focus primarily on three major forces of conflict -- imperialism, nationalism, and neoliberalism -- and we will explore global case studies within each unit in order to see more clearly how these forces have operated over time and continue to impact us today. In each unit we will explore these topics through a variety of sources, including news and popular media, art, literature, film, podcasts, and guest speakers in order to develop a deeper understanding of what we're studying from a range of perspectives. Case studies may include South Africa, Rwanda, Bosnia, Northern Ireland, India, Myanmar, Chile, Russia, and the United States. By exploring and discussing the roots of conflict, the hard work of peace, and the people on the ground who are impacted by both, you will walk away with a more complicated picture of what divides people and also what can potentially bring them together. **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History

#### H430 | GSC | SOCIAL DOCUMENTARY: PHOTOGRAPHY, HISTORY, AND CIVIC AGENCY

Students will create their own social document photography projects as a complement to inquiry into historic, political and cultural research of their own questions and observations. Social documentary photography has opened the door to historical contextualization and civic action since the beginning of its publication in the early 20th century, and we will study its history - images, use and context - in this class. Housing and work conditions, patterns of migration, family life, human rights, racial equity, justice and civil rights are only some of the areas of life whose investigation has been launched by photographers were compelled to represent what they noticed around them. Student projects will be supported by instruction creating photographs that effectively represent their observations, and practice in research and writing to accompany their creative work. A final presentation will be exhibited in a public display. (CIV) **Pre-Reqs:** World History -prior Photography classes are NOT required for success in this class.

#### H432 | HN, GSC | DYNAMICS OF THE MODERN MIDDLE EAST

Dynamics of the Modern Middle East is a course that seeks to deepen students' understanding of this complex and important region. This course will explore major historical events, themes, and issues in the greater Middle East in the 20th and 21st centuries, including a study of the fall of the Ottoman Empire, colonization and decolonization, the rise and spread of nationalism, the importance of oil in geopolitics, the role of Western influence in the region, the rise of political Islam, the spread of militant extremism, and the military conflicts and migrations that have occurred since the beginning of the 21st century. The course will also examine the roles that religion, culture, literature, and media play in shaping the experiences of those living in the Middle East. Through an exploration of diverse perspectives, students will go beyond the headlines in order to better understand the varied experiences of people living in the Middle East today. **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History.

#### **H435 | CONSTITUTIONAL LITERACY**

Students in this course will understand the relevance of the U.S. Constitution through the examination of Supreme Court cases involving the rights of young people at school and in the juvenile justice system. Co-taught by a CRLS History teacher and 2nd year Suffolk University Law School, students in this course will analyze historical issues from multiple perspectives, enhance their written and oral communication skills and further develop their individual political and social beliefs. Students in this course are required to deliver at least four oral arguments as part of their assessment. Additionally students enrolled in the course will prepare for and participate in the Marshall Brennan Moot Court local and regional competitions. (CIV) **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History.

#### **H440 | HN, CIV, GSC | GLOBAL STUDIES CERTIFICATE SENIOR SPRING SEMINAR**

The Global Studies Certificate Senior Seminar is a course designed for seniors in the Global Studies Certificate Program. The GSC Program promotes engagement in global studies through an emphasis on investigating the world, weighing perspectives, communicating ideas, taking action, and applying disciplinary and interdisciplinary expertise in authentic ways. This course seeks to put those skills into practice and will be divided into two parts. During the first part, students will develop a deeper understanding of three global issues by working individually and in groups to synthesize information from multiple sources, develop their own perspectives, and design and deliver their findings. During the second part of the course, students will use the research and global education skills they developed to design their capstone project and complete their GSC portfolio. Ultimately, the course aims to equip students with the skills to raise globally significant questions and research and analyze information with accuracy and precision in order to craft and communicate evidence-based findings and arguments about globally significant issues.

#### **H445 | HN, CIV, GSC | GLOBAL CIVICS**

This course offers a student-led civic engagement project (CEP) satisfying a new state requirement for high school graduation. It is also an approved elective for students participating in the new Global Studies Certificate (GSC) Program at CRLS. This interdisciplinary course explores what it means to be a global citizen in our increasingly interconnected and interdependent world. It offers students ample opportunity to delve into global issues of their choosing and to propose solutions at the local, national, regional, or global level. While macro concepts like ethics and morality, human rights, and democratic governance guide the course, rotating subjects based on current happenings and class interest constitute its core. Among the many topics explored by former students are: migration and refugees, comparative education, global health, climate change, war and conflict, technology and communication, global economics and trade, and the role of international organizations. Aside from readings, videos, and lectures, the class constantly analyzes current happenings from around the world and assesses their potential impact at various levels and locations. The course draws upon the wealth of talent and expertise available at CPS and the wider local academic and professional communities to bring in guest speakers who can facilitate and enrich discussions on the various topics it tackles. (CIV) **Grades:** 10, 11, 12 **Pre-Reqs:** World History

#### **H450 | HN, CIV | HISTORY OF SPORTS IN AMERICAN SOCIETY**

In this course students will examine the development of sports in American society. There will be an emphasis on helping students gain a better understanding of the relationship that sport has on social, cultural, economic, and political forces that are at work in the United States. Students will examine the historical context as well as the significance of politics, gender, race, and social class through readings, primary sources, audio and visual materials as well as class discussions. (CIV) **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History.

#### **H455 | HN, CIV, GSC | HISTORY THROUGH THE HEADLINES**

History is most powerful when it is used to explain the present. Departing from traditional practice, this course will explore the historical roots of current events. Rather than looking forward, as is customary, this class gazes backwards. By historicizing the news, students will be able to: Develop nuanced critical thinking and reading skills; Pursue research on subjects that feel personally relevant and urgent; Write academic and journalistic prose; Debate and discuss pressing social, political, cultural, and economic issues; Practice civic engagement and active citizenship; and Engage with scholarly and mainstream news sources from a variety of mediums and political perspectives. (CIV) **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issue in US History.

#### **H460 | CULTURE BUILDS A NATION: HOW MUSIC AND FOOD IMPACT HISTORY**

This course will look at the impact that both music and food have on the growth of a nation, and the course of history. Through exploration in food scarcity, access to resources, and the use of music both for communication and reaction to historical events this will be a hands-on course that challenges students to look at global history from different perspectives and will be focused on developing students skills in reading, writing, and speaking. This course will include a Civic Action project to fulfill the requirement. (CIV) **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History

#### **H465 | HN, CIV | MASS INCARCERATION AND CIVIC ACTIVISM**

This course is a seminar-style investigation into the topic of mass incarceration and the various ways that activists and changemakers seek to respond to this problem. Through multiple texts and other media, we will explore the historical underpinnings, root causes and current debates concerning mass incarceration. We will also evaluate the legal, political and grassroots responses to the issue. We will ask, "Why does this matter to me?" and learn strategies and tools to be a changemaker and effective civic actor who understands how each of us can contribute to communities where love and justice prevail over hate and injustice. (CIV) **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History.

#### **H470 | MODERN LATIN AMERICAN HISTORY**

With a combined population of over 600 million and an annual economic output of nearly \$6 trillion, Latin America and the Caribbean is one of the fastest growing regions of our planet. To better understand this region is to better understand the world and Cambridge. In this course, students will begin with a historical analysis of indigenous cultures and history, as well as the trauma of European colonization and enslavement of Africans in the Americas. We will also learn about the various independence movements, with particular focus on Haiti, South America, and Cuba, as well as the impact of American imperialism in the region. Finally, we will look at the impact of the Cold War and trade policies, before taking a look at the present of the Americas and Caribbean. We will also consider the dialogue, or lack thereof, between the American Latinx community and the people of Latin America. The class, which will be modeled after college seminar courses, will include extensive reading (of historical non-fiction, as well as literature, music, film, etc.), writing (including weekly reflection papers and longer term papers), and projects (creation of podcasts, civic activism, and community events. **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in United States History

#### **H485 | HN, CIV | THE MODERN UNITED STATES**

The Modern United States, 1968 to the Present is a class that will provide students with perspective on and analytical tools to understand social, political, and economic changes and continuities over the past fifty years of United States history. Students will use the concepts of historical &quot;fault lines ; to break apart and discover the way that the US since 1968 has shaped the modern aspects of American identity, union, and division. In addition to looking at historiographical understanding of the period, the course will include multiple types of primary source material to engage students and have them do the work of historical inquiry. Students will grapple with events and topics such as the Watergate scandal, the aftereffects of the rights revolutions of the 1960s and 1970s, the role of the US in the world, and the post-September 11, 2001 era. By the end of the course, students will complete a civic action project that incorporates their historical knowledge with an understanding of federal, state, or local civic activities. (CIV) **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History

#### **H490 | HN, CIV | UNITED STATES CIVICS AND CURRENT EVENTS**

This course explores current events as they unfold as a way to understand how the United States government operates. With a focus on media literacy, together we study big questions about what it means to live in a democracy. We speak with local leaders, politicians, and activists to see how the major current events of our times impact our community, nation, and world. Students will also learn and practice the civic skills they need to effectively participate in our democracy, including how to engage policy makers; how to speak and write persuasively on public issues, and how to engage in respectful civil discourse. This course prepares students to use their voices to shape their lives and influence their communities. (CIV) **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History.

#### **H491 | HN OPT | THE HISTORY OF FASHION**

In this course we will analyze case studies in the history of fashion from around the world. We will address key questions that help us better understand the role fashion has played in various time periods such as during World War II, during the Civil Rights movement, the AIDs crisis of the 1980's, and the Black Lives Matter movement of today. We will understand how fashion reflects the times and pushes revolutionary ideas that ultimately reflect social change. As a result of this class, you will become more familiar with significant moments for women in fashion, how music and prominent figures have influenced fashion, and how historic events have changed the fashion industry over time. The following units will be covered in the course: Significant Moments for Women in Fashion (Geisha girls in Japan, Wartime fashion in Europe, Roaring twenties in the US, PANTS!-Worldwide), Major Historical Events & Fashion (AIDs epidemic- Ballroom scene, Protest fashion- BLM & Hair, WWII- Chanel, Puma vs Adidas, Civil Rights movement), Music Culture (Punk, Disco, Hip Hop, Metal), Sneaker Culture (Brands, People, Geography, Reselling), A Resource guide for students looking for futures in fashion- Short module **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in United States History

#### **H495 | HN, GSC | WOMEN AND GENDER STUDIES**

This course engages CRLS students in a radical question: what would world history look like if it were centered upon the contributions, experiences, and impact of women? To explore this possibility, students will be asked to consider a range of thematic case studies, from contemporary social movements and protests to the formation of lasting social institutions. Topics to be explored include: MeToo and the history of sexual harassment; women's health and the law; marriage and society; educational access; intersectional feminism; equal pay and fair labor laws. Skills that will be developed in this class include but are not limited to: building critical skills for recognizing and dismantling misogyny, empowering women's voices and building leadership skills among women, and critical analysis of modern feminist movements. Students will be expected to participate in discussion, engage in current events and the history behind them, and to develop and complete in-depth research within a topic of their own choosing. **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in United States History

#### **H502 | HN, UM | AMERICAN IDENTITIES**

American Identities is offered in collaboration with the American Studies Department at UMass-Boston, and CRLS students are eligible to earn college credit for AMST 100, the department's required introductory course. In this class, students will be guided in writing a college-level, three-generation family history that incorporates family, political and cultural events from 1945 to the present. The overarching personal and academic throughline of this UMass-Boston course is: am history, and history is me. This course examines the construction, definition and explanation of the diverse "American identities" in the United States. Using the concepts and methodologies of American Studies, students will examine a variety of historical and cultural resources including popular music, fiction, film, family and historical photos, family and other material culture, family and historic archives, as well as primary and secondary source readings and academic articles. Students will explore individual, family, community, ethnic, class, gender, and racial identities in relation to regional, national, and transnational identities. After successful completion of this course, students are eligible for UMass credit. **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History.



### H504 | AP WORLD HISTORY: MODERN

AP World History focuses on developing students' abilities to think conceptually about world history from approximately 1200 CE to the present and apply historical thinking skills as they learn about the past. Six themes of equal importance -- focusing on the environment, cultures, technological innovation, state-building, economic systems, and social structures -- provide areas of historical inquiry for investigation throughout the course. AP World History encompasses the history of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions. Students taking this course are strongly encouraged to take the AP exam in May. **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History.

### H506 | AP, GSC | COMPARATIVE GOVERNMENT AND POLITICS

AP Comparative Government and Politics explores important themes and concepts in comparative government through the lens of six core countries: the United Kingdom, Mexico, Nigeria, Iran, Russia, and China. Students will engage in thoughtful cross-country comparison as we explore each case study. This course emphasizes the diversity of political life around the world and the challenges and opportunities facing states in the 21st Century. As a college-level course, there are considerable expectations of students in terms of rigor, quality, and dedication to their work. Students taking this course are strongly encouraged to take the AP exam in May. **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History.

### H510 | AP, CIV | U.S. GOVERNMENT AND POLITICS

This course provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they will complete a political science research or applied civics project. Students taking this course are strongly encouraged to take the AP exam in May.(CIV) **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues in US History



### H531 | AP | UNITED STATES HISTORY

AP U.S. History is designed to be the equivalent of an introductory college or university U.S. history course. In AP U.S. History students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society. Students in Advanced Placement courses are expected to take the AP exam in May and part of the class will focus on that preparation. Successful completion of the APUSH exam may qualify students for college credit or exemption from initial college history classes. **Grades:** 11, 12 **Pre-Reqs:** World History and Critical Issues In United States History.

## Mathematics

**Expectation:** All CRLS students are expected to engage in critical conversations and evidence-based discussions to solve problems and develop ideas, demonstrating perseverance and accepting mistakes as part of this process; as well they are expected to express their mathematical thinking orally and in writing, with a focus on becoming lifelong problem solvers who help, continuously adjust, and adapt to a diverse and ever changing society.

### Description:

The CRLS Mathematics Department offers a wide range of courses for students of different abilities and interests from Algebra I through our Honors and Advanced Placement Calculus courses, Statistics and Computer Science classes. We also offer a variety of electives including Applied Mathematics, Money & Power: Financial Literacy, Trigonometry & Statistics, Statistics & Society, Intro to Design Thinking and Machine Learning and Artificial Intelligence.

The Math Department curriculum is aligned with the Massachusetts Curriculum Framework Incorporating the Common Core Standards for Mathematics. Several years ago CRLS adopted the State of Massachusetts' recommendation that students be required to take and pass four years of mathematics during high school including taking at least one class in their senior year.

### **M101A | ALGEBRA I A**

This course is the first half of a full year Algebra 1 experience for students and needs to be taken with Algebra 1B. The class will address the Massachusetts Curriculum Framework for Mathematics Incorporating the Common Core Standards for Massachusetts. The eight Standards of Mathematical Practice will be incorporated throughout the year in that it is designed to involve students in active learning, inquiry based problems and problem solving strategies to build conceptual understanding and to strengthen students' abilities to think, reason, and problem-solve using mathematical understandings and skills. Discussed, among other topics, will be rational and irrational numbers, writing and interpreting polynomial and rational expressions, creating and reasoning with equations and inequalities, interpreting and building functions including linear, quadratic and exponential models, and summarizing and interpreting statistical and probability data. Students who excel during this course will be given the opportunity, with teacher recommendation, to move into Honors Algebra 1 for the 2nd semester. **Grades: 9 Pre-Reqs:** Grade 8 math.

### **M101B | ALGEBRA I B**

This course is the second half of a full year Algebra 1 experience for students and needs to be taken with Algebra 1A. The class will address the Massachusetts Curriculum Framework for Mathematics Incorporating the Common Core Standards for Massachusetts. The eight Standards of Mathematical Practice will be incorporated throughout the year in that it is designed to involve students in active learning, inquiry based problems and problem solving strategies to build conceptual understanding and to strengthen students' abilities to think, reason, and problem-solve using mathematical understandings and skills. Discussed, among other topics, will be rational and irrational numbers, writing and interpreting polynomial and rational expressions, creating and reasoning with equations and inequalities, interpreting and building functions including linear, quadratic and exponential models, and summarizing and interpreting statistical and probability data. **Grades: 9 Pre-Reqs:** Algebra 1A

### **M111 | HN | ALGEBRA 1**

This course is an accelerated version of Algebra I A and Algebra I B. This advanced course addresses the Massachusetts Curriculum Framework for Mathematics Incorporating the Common Core Standards for Mathematics. The eight Standards of Mathematical Practice will be addressed throughout the semester as students discuss, among other topics, rational and irrational numbers, writing and interpreting polynomial and rational expressions, creating and reasoning with equations and inequalities, interpreting and building functions including linear, quadratic and exponential models, and summarizing and interpreting statistical and probability data. The course is designed to involve students in active learning, inquiry based problems, and problem solving strategies to build conceptual understanding and to strengthen students' abilities to think, reason, and problem-solve using mathematical understandings and skills. **Grades: 9 Pre-Reqs:** 1.) Grade of B or better in an 8th grade math course that provided adequate exposure to Alg 1 curriculum (determined by teacher), 2.) completion of summer program that provided adequate exposure to Alg 1 curriculum and a referral to move to honors level, 3.) self and/or other referral with adequate evidence of student's preparation work and necessary benchmarks satisfied.

### **M121A | GEOMETRY A**

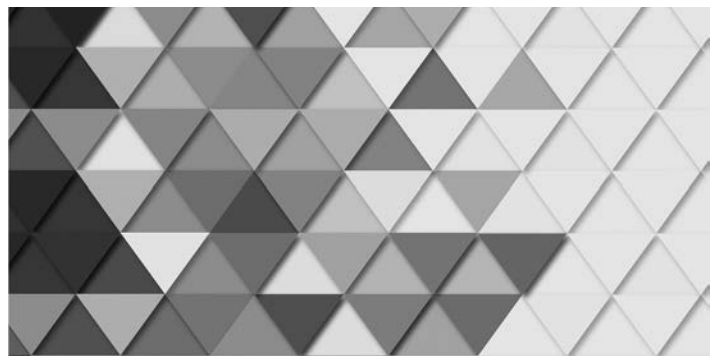
This course is the first half of a full year Geometry experience for students and needs to be taken with Geometry B. The class will address the Massachusetts Curriculum Framework for Mathematics Incorporating the Common Core Standards for Massachusetts. The eight Standards of Mathematical Practice will be incorporated throughout the year in that it is designed to involve students in active learning, inquiry based problems and problem solving strategies to build conceptual understanding and to strengthen students' abilities to think, reason, and problem-solve using mathematical understandings and skills. Students will learn about congruent and similar figures, geometric proofs, transformations, coordinate geometry, properties of 2-dimensional figures (triangles, quadrilaterals, and circles), trigonometry, and basic probability. Students who excel during the 1st semester of the course will be given the opportunity, with teacher recommendation, to move into Honors Geometry for the 2nd semester. **Grades: 10 Pre-Reqs:** Algebra 1

### **M121B | GEOMETRY B**

This course is the second half of a full year Geometry experience for students and needs to be taken with Geometry A. The class will address the Massachusetts Curriculum Framework for Mathematics Incorporating the Common Core Standards for Massachusetts. The eight Standards of Mathematical Practice will be incorporated throughout the year in that it is designed to involve students in active learning, inquiry based problems and problem solving strategies to build conceptual understanding and to strengthen students' abilities to think, reason, and problem-solve using mathematical understandings and skills. Students will learn about congruent and similar figures, geometric proofs, transformations, coordinate geometry, properties of 2-dimensional figures (triangles, quadrilaterals, and circles), trigonometry, and basic probability. **Grades: 9, 10 Pre-Reqs:** Passing grade in Geometry A

### **M122 | HN | GEOMETRY**

This course is an accelerated version of Geometry A and Geometry B. This advanced course will cover the Common Core Standards for Massachusetts outlined in the Massachusetts Curriculum Frameworks. Students will learn about congruent and similar figures, geometric proofs, transformations, coordinate geometry, properties of 2-dimensional figures (triangles, quadrilaterals, and circles), trigonometry, and basic probability. Students will engage in the eight Standards of Mathematical Practice by acquiring specific knowledge using active, hands-on learning and then applying that knowledge to real-life scenarios. Students will also obtain useful problem solving strategies to strengthen their ability to think about, reason through, and explain difficult mathematical concepts. **Pre-Reqs:** 1.) Grade of B or better in Algebra 1, 2.) teacher recommendation, 3.) self and/or other referral with adequate evidence of student's preparation work and necessary benchmarks satisfied.



### M201 | ALGEBRA 2

This course will cover the Common Core Standards for Massachusetts outlined in the Massachusetts Curriculum Frameworks. The eight Standards of Mathematical Practice are addressed throughout the course as students acquire specific knowledge using active, hands-on learning and then applying that knowledge to real-life scenarios. Students will be required to work closely with the expressions that define functions, are comfortable with the algebraic manipulations of functions, and continue to hone their abilities to model situations and to solve equations. Graphing is emphasized and geometry is applied. Topics include a study of patterns and functions. Students will describe, extend, analyze and generalize linear functions as well as exponential and logarithmic relationships, and radical, rational and polynomial functions. This course also addresses topics in statistics. **Pre-Reqs:** Passing grade in Algebra 1 and Geometry

### M211 | HN | ALGEBRA 2

This course will cover the Common Core Standards for Massachusetts outlined in the Massachusetts Curriculum Frameworks. The eight Standards of Mathematical Practice are addressed throughout the course as students acquire specific knowledge using active, hands-on learning and then applying that knowledge to real-life scenarios. This course is an advanced math class that requires students to work closely with the expressions that define functions, to be comfortable with the algebraic manipulation of expressions, and to continue to expand and refine their abilities to model situations and to solve equations. **Pre-Reqs:** Grade of B or better in Geometry at CRLS. Incoming 9th graders who plan to take this as their first math class at CRLS first need to place out of Algebra 1 through pre-established district criteria. Please speak with your 8th grade math teacher or 9th grade guidance counselor for more information.

### M311 | HN OPT | STATISTICS & TRIGONOMETRY

Statistics & Trigonometry (S&T) strengthens and expands upon students' understanding of previous math concepts. Students examine many facets of statistics with an emphasis on analyzing and interpreting various statistical measures. Probability is explored and connected to real-life scenarios. In addition, students will expand their understanding of trigonometric ratios, the Unit Circle and applications of trigonometry. This course serves as an effective precursor to Precalculus and/or AP Statistics. In addition, S&T prepares students for introductory college math courses for potential liberal arts or business majors. Students who elect to take the class for Honors credit will be required to complete additional coursework. **Pre-Reqs:** Passing grade in Algebra 2, or teacher recommendation.

### M410 | PRE-CALCULUS WITH QUANTITATIVE REASONING

Students in this course will study functions including real world situations and how they are modeled algebraically, numerically, and graphically. This course will demonstrate how algebra and geometry can be used to model real-world situations. Students will use conceptual understandings to become critical thinkers when using quantitative information and connections will be made between statistics and everyday life and work. Students will also explore matrices and vectors to define and solve real-world problems. (HN Opt). **Pre-Reqs:** Grade of B or better in Algebra 2 or teacher recommendation. Students may NO LONGER take a placement test to place out of Pre-Calc. They may either 1.) attend an APPROVED summer program and pass it with a B or better or 2.) go through the CRLS math referral process posted on the website.

### M411 | PRE-CALCULUS

Students in this course will study functions including real world situations and how they are modeled algebraically, numerically, and graphically. This course will demonstrate how algebra and trigonometry can be used to model real world problems. Students will demonstrate an understanding of trigonometric functions and formulas for sine and cosine. Students will relate the slope of a tangent line at a specific point on a curve to the instantaneous rate of change. Technology in various forms is fully integrated. Students will use induction to prove theorems and verify formulas. This is a demanding course designed for motivated students. Students completing this course with a B/B+ or better typically enroll in AP Calculus AB/BC. **Pre-Reqs:** Grade of B or better in Honors Algebra 2 or teacher recommendation. Students may NO LONGER take a placement test to place out of Pre-Calc. They may either 1.) attend an APPROVED summer program and pass it with a B or better or 2.) go through the CRLS math referral process posted on the website.

### M412 | HN OPT | MATHEMATICAL REASONING WITH APPLICATIONS

This course provides an alternative to Pre-Calculus for students who wish to continue to study mathematics beyond topics found in Algebra 2. The course curriculum focuses on answering the question "Why do I need to learn math?" Students will look at how mathematical concepts such as cash flow, interest rates, linear and exponential growth, percentages, probability, statistics and estimation are encountered in areas such as business, personal finance, casinos, media, economics, sports, medicine and the environment. These topics are investigated in a way that conveys the extent in which modern mathematics is used on a daily basis. As a part of this class, you will learn the skills to create and present unique projects that will show your understanding of the course content and highlights your unique interests and ideas. Students who elect to take the class for Honors credit will be asked to do additional coursework. **Pre-Reqs:** Passing grade in HN Algebra 2, FST or Pre-Calculus with Quantitative Reasoning



#### M414 | HN OPT | APPLIED MATHEMATICS

This course provides an alternative to Precalculus for students who wish to continue to study mathematics beyond topics found in Algebra 2. The course curriculum focuses on answering the question “Why do I need to learn about math?” Students will look at how mathematical concepts are encountered in areas such as business, personal finance, casinos, media, economics, sports, medicine, the environment, and more. These topics are investigated in a way that conveys the extent in which modern mathematics is used on a daily basis. As a part of this class, you will learn the skills to create and present unique projects that will show your understanding of the course content and highlights your unique interests and ideas. Students who elect to take the class for Honors credit will be asked to do additional coursework. **Grades:** 10, 11, 12 **Pre-Reqs:** Passing grade in Algebra 2, or teacher recommendation.

#### M415 | HN OPT | INTRODUCTION TO COMPUTER SCIENCE

This beginner course is designed for students who have had no previous programming experience. Computing has opened up wonderful new ways for people to connect, design, research, play, and express themselves. This survey course offers students a hands-on introduction to computer science. Students will program using a block-based graphical interface as they learn how to translate their ideas into code. The course is intended not only to familiarize students with computer programming, but also to sharpen problem-solving skills. Honors designation can be earned by completing additional assignments and projects. Students will earn math credit for this course. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** There are no prerequisites for this course.

#### M416 | AP | COMPUTER SCIENCE

This advanced course can be taken by students with or without programming experience. Because the design and implementation of computer programs to solve problems involve skills that are fundamental to the study of computer science, a large part of the course is built around the development of computer programs that correctly solve a given problem. These programs should be understandable, adaptable, and, when appropriate, reusable. At the same time, the design and implementation of computer programs is used as a context for introducing other important aspects of computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, the study of standard algorithms and typical applications, and the use of logic and formal methods. In addition, the responsible use of these systems is an integral part of the course. This course is a joint CRLS and Microsoft Corporation TEALS Program initiative and will be co-taught by a Microsoft employee and a CRLS teacher. Students will earn math credit for this course. Students taking this course will be asked, and strongly encouraged, to take the AP Computer Science Exam in May as an important part of their AP experience. **Grades:** 10, 11, 12 **Pre-Reqs:** Passing grade in Algebra 2

#### M417 | STATISTICS & SOCIETY: MATHEMATICS

Every day we are surrounded by claims of all kinds. This course helps students to see why a given claim is being made, and what the conditions, parameters, influences, contexts, and goals are that guide the argument. As students come to understand the construction of claims and their persuasive elements, they will be able to further understand how to utilize and manipulate data to increase the soundness of their own claims. Ultimately these new understandings will be employed in their mathematically-based writing projects. The underlying goal is to continually explore and articulate personal beliefs and to defend them using sound statistical analysis, while allowing those beliefs to shift and change as students participate in robust discussions. Major themes will include Education, Gender and Race, Language and Literacy, Popular Culture, and Politics and Satire, and these themes will be analyzed using one- and two-variable statistics and facts about polling and sampling. Students who elect to take the class for Honors credit will be asked to do additional coursework. This course needs to be taken along with Statistics & Society: ELA (E446). By taking both classes, students will earn 10 credits in Math and 10 credits in ELA. Students will earn an Honors credit based on their performance. **Pre-Reqs:** Passing grades in ELA 9, 10 & 11 and in Algebra 2.

#### M418 | HN OPT | CLOUD COMPUTER PRINCIPLES

Did you know that companies such as Pinterest, Airbnb, Snapchat, and others will be investing 1 trillion dollars in their cloud assets by 2030? Not for profits such as Crisis Text Line, Trans Lifeline, the United Way, and others use cloud systems to improve the lives of people. Are you interested in learning more about the ‘Cloud’ as a future career, way to solve the big problems of our community/world, or want a new hobby? You need NO programming experience, and you may have NEVER thought of yourself as someone who is interested in Computer Science. All we ask is a general curiosity about the Cloud. In this course we will get hands on experience designing, building, and fixing real Cloud resources for FREE using Amazon Web Services the #1 Global Cloud provider! By the end of the course you will have real life skills which could be applied to your own projects, or leveraging your new Cloud skills as you apply for Summer Internships. Additionally you will have the knowledge to test for an AWS certification as a Certified Cloud Practitioner. This certification could be placed on your Resume and could be the beginning of your journey in the Cloud. Students will earn math credit for this course with an Honors Option.



#### M420 | HN | MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

This course is designed to provide students with an overview of machine learning: a branch of artificial intelligence where algorithms and statistical techniques are used to allow computers to learn to recognize patterns in various types of data. Machine learning is used widely to do things like rank Internet searches, recognize faces in images, filter out spam in email, make recommendations in streaming services, and control self driving cars. In general, machine learning is the science of getting computers to learn without explicitly being programmed. We will study topics and implement algorithms such as supervised, unsupervised and reinforcement learning, clustering, nearest neighbors, neural networks, classification vs regression, handling data in different forms, and ethical considerations for applications of machine learning. **Grades:** 11, 12 **Pre-Reqs:** AP Computer Science or AP Computer Science Principles or similar programming experience and a grade of B or better in Honors Precalculus or teacher recommendation if student earned a passing grade lower than B.

#### M425 | HN | CALCULUS

This course is an Honors level study of single variable calculus. Major skills to be developed/mastered will include numerical, analytical, and visual methods involved in the study of limits, continuity, basic derivatives and basic anti-derivatives/integration. The skills learned will be applied to model and solve problems in a variety of contexts. **Grades:** 10, 11, 12 **Pre-Reqs:** Grade of B or better in Precalculus or Honors Precalculus or teacher recommendation if student earned a passing grade lower than B.

#### M430 | ADVANCED ALGEBRA & STATISTICS

This course reviews topics previously covered in students' Algebra 2 course that may not have been mastered before beginning a deep dive into statistics. Using an inquiry-based approach, students will begin learning how to select methods for collecting and/or analyzing data for statistical inference and begin describing patterns, trends, associations, and relationships in this data. Students will also explore random phenomena and practice developing an explanation or justifying a conclusion using evidence from data, definitions, or statistical inference. After taking this class, students will be prepared for an upper level statistics course and it is expected that they will continue on to AP Statistics in semester 2. **Pre-Reqs:** A passing grade in Algebra 2.

#### M435 | MONEY & POWER - FINANCIAL LITERACY

This course is specifically designed to offer high school students the financial skills and understanding that they need upon graduation to navigate the realworld and create realistic financial goals. Through project-based learning, students will gain an understanding of what it means to live within their means, and how to be financially responsible. Topics covered include sources of income, taxes, living independently, buying a vehicle, budgeting, loans, interests, credit scores, personal bankruptcy, identity theft, banking, check writing, types of savings, investments, mutual funds and the stock market. Students will be exposed to realistic scenarios and will actively engage by applying the mathematics necessary to make informed decisions related to personal finance. **Pre-Reqs:** A passing grade in Algebra 2, or teacher recommendation.

#### M436 | GEOMETRY IN CONSTRUCTION

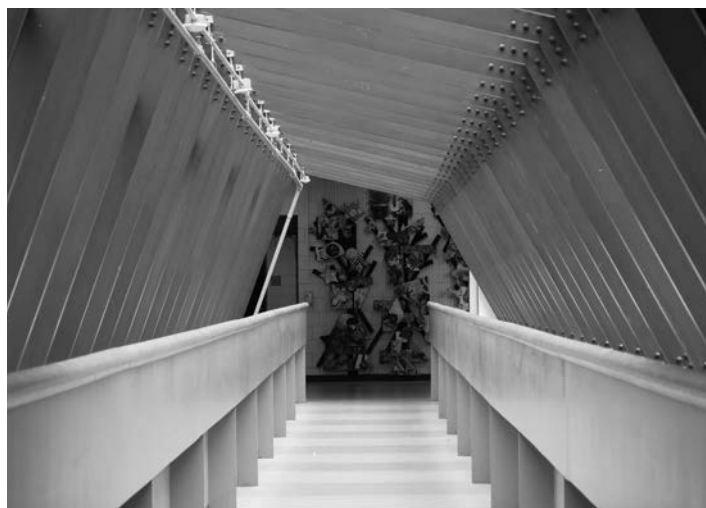
Students will learn to apply geometric concepts to carpentry and building. This common core-aligned course alternates between math days and build days. You'll be surprised to see how interesting fractions, measuring angles, and measurement formulas become when using them to build. See how geometric tools such as compasses, rulers and protractors are used in real world construction projects. Learn how two dimensional (2D) paper shapes on construction plans become three dimensional (3D) objects and buildings. **Pre-Reqs:** A passing grade in Algebra 1.

#### M440 | INTRO TO DESIGN THINKING

In this course, students will explore the fundamental aspects of Design Thinking. Design thinking is about believing we can make a difference, and having an intentional process in order to get to new, relevant solutions that create positive impact. Students will grow as creators and problem solvers in order to transform difficult challenges into opportunities for impact. Throughout the course students will collaboratively; explore the problems in their community, generate Theories of Action and ideate possible approaches, iterate and test their prototypes, and grow as impactful citizens. This empathy-based approach to design thinking will allow students to gain first hand experience both with the practical foundations of Design Thinking, as well as the skills necessary to create prototypes for positive change. **Pre-Reqs:** There are no prerequisites for this course.

#### M445 | HN | MULTIVARIABLE CALCULUS

This course covers differential, integral and vector calculus for functions of more than one variable, including the following topics: vector-valued functions; parameterized curves and surfaces; vector fields; partial derivatives and gradients; optimization; method of Lagrange multipliers; integration over regions in  $R^2$  and  $R^3$ ; integration over curves and surfaces; Green's theorem, Stokes's theorem, Divergence theorem. These topics and methods are used extensively in the physical sciences, engineering, economics and computer graphics. All topics identified in a typical university multivariable calculus course will be addressed. There is no AP exam associated with this course. This is a demanding course designed for motivated students who have taken AP Calculus BC or AB and gotten a 3 or higher on their AP exam or with teacher recommendation. **Pre-Reqs:** A B+ or higher in one of the following courses: AP Calc AB/BC or Honors Calc OR a 3 or higher on their AP exam or with teacher recommendation if student earned a passing grade lower than B.



#### M450 | MATHEMATICS FROM A FEMINIST PERSPECTIVE

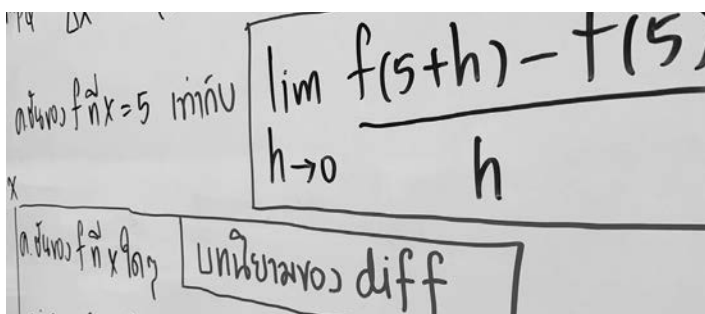
The traditional K-12 mathematics standards are dominated by White male mathematicians and a European-centric ways of thought. However, non-European and non-male mathematicians were (and are) doing mathematics in ways that are not recognized by these traditional “standards.” This course is a restorying of who mathematics is by and for. It centers mathematics from an intersectional feminist perspective, and looks at mathematical ways of knowing that are anti-capitalist, anti-colonialist, and anti-patriarchal. Students will begin by investigating different cultures’ counting systems, the “discovery” of zero, and engage in the production of mathematical art, such as tessellations, weaving, crochet, and kolam, to name a few, that are typically done by “women” and not recognized until much later as “real math.” Students will discover how their own interests and contributions to intellectual thought are inherently mathematical. **Pre-Reqs:** A passing grade in Algebra 2, or teacher recommendation.

#### M501 | AP | CALCULUS AB

This course is an in depth and rigorous study of single variable calculus, which follows honors level work in the Precalculus, Algebra 2, and Geometry CRLS course sequence. Major skills to be developed/mastered will include numerical, analytical, and visual methods involved in the study of differential and integral calculus of polynomial, exponential, logarithmic, and trigonometric functions. The skills learned will be applied to model and solve problems in a variety of contexts. Advanced Placement curriculum for this course will be addressed and AP Calculus Exam problems will be used to supplement course topics. Students taking this course will be asked, and strongly encouraged, to take the AP Calculus AB Exam in May as an important part of their AP experience. **Pre-Reqs:** Grade of B or better in Honors Precalculus and/or teacher recommendation if student earned a passing grade lower than B.

#### M502 | AP | CALCULUS BC

This course is an in depth and rigorous study of single variable calculus, which follows honors level work in the Precalculus, Algebra 2, and Geometry CRLS course sequence. Major skills to be developed/mastered will include numerical, analytical, and visual methods involved in the study of differential and integral calculus of polynomial, exponential, logarithmic, trigonometric, parametric, polar, vector functions, along with sequences and series. The skills learned will be applied to model and solve problems in a variety of contexts. All topics identified in the Advanced Placement curriculum for this course will be addressed and AP Calculus Exam problems will be used to supplement course topics. This is a demanding course designed for motivated students. Students taking this course will be asked, and strongly encouraged, to take the AP Calculus BC Exam in May as an important part of their AP experience. **Grades: Pre-Reqs:** Grade of B+ or better in Honors. Precalculus and/or teacher recommendation if student earned a passing grade lower than B.



#### M510 | AP | STATISTICS

This course will provide students with an in-depth and rigorous study of statistics with the goals of improving students’ statistical fluency and interpretation of statistical data and ideas. The course will follow a curriculum approved by the Advanced Placement Committee of the College Board. Topics included as part of this curriculum will be distribution analysis, probability & simulations, sampling methods and making inferences based on data. AP Statistics Exam problems will be used to supplement course topics. -Students taking this course will be asked, and strongly encouraged, to take the AP Statistics Exam in May as an important part of their AP experience. **Pre-Reqs:** Passing grade in Advanced Algebra & Statistics or a grade of B or higher in Algebra 2 with teacher recommendation if student earned a passing grade lower than B.

## Media Arts

**Expectation:** A CRLS student uses specialized technology tools to convey meaning through media.

The Media Arts program addresses the ever-increasing need for 21st century citizens to create media and utilize new technologies. Students may choose media making courses in Digital Film, Media Journalism, Music and Sound Design, from introductory through advanced multi-media production and distribution. Courses offer theory, pre-production, production and distribution skill development, and include collaborative projects that provide first hand experience with professional media makers. Media Arts classes are offered in conjunction with English, Rindge School for Technical Arts (RSTA), and Visual & Performing Arts Departments, and are open to all CRLS students. Completed student work is shown on Cambridge cable channel 98 and the live channel stream, available on the Youth View Cambridge website, and archived at [studentmedia.cpsd.us](http://studentmedia.cpsd.us).

The Media Arts program is a RSTA concentration eligible for Chapter 74 Certification. There are different options for a student to successfully fulfill the 5 required courses to become a Media Arts Chapter 74 completer. Chapter 74 Certification benefits include: internships, enhanced college admission opportunities, and advanced standing in college media art classes.

#### TM100 | HN OPT | MULTIMEDIA SPORTS REPORTING

Write, research and present the stories of Falcon Sports Teams and address the pressing issues in high school sports for a general audience. Students in this class will watch and analyze sports documentaries in order to learn the power of image, script and editing to tell stories in sports. They will apply what they learn to write sports articles, record audio profiles and podcasts and produce video projects in the field and studio. Homework will focus on recording stories about Falcon athletes and game coverage. Can be taken for English elective credit.

#### TM102 | HN OPT | MUSIC PRODUCTION 1

Learn to record your own music and tracks. Use Logic Pro, ProTools, Audition, and other studio software/hardware to bring your audio ideas to life. This course will explore the roles and responsibilities of music producers and engineers from idea inception to finished product. Comprised of 3 mini units - Basics of Audio Technology, Hands on Original Experiences, and Critical Listening - the course will also address basic music composition and arrangement techniques related to analog and digital workflow.

### TM103 | HN OPT | MUSIC VIDEO & BEAT PRODUCTION

Students will learn to write lyrics, record footage and edit together original, synced music videos using professional audio and video editing software. Students will learn the process from start to finish; designing an idea, creating the music and filming and editing video to bring those ideas to life. Students will acquire advanced practices in the studio and field in the areas of field camera production, lighting design, directing, editing and producing through music video production.

### TM104 | FRESHMAN SOUND

In this introductory course students will work in the CRLS Media Arts Studio to study the basics of audio production and sound design. The course will cover recording with microphones, basic digital music composition and mixing, designing sound for film and video, and the fundamentals of sound-physics. **Grades:** 9

### TM105 | HN OPT | MUSIC & SOUND DESIGN 1

In this introductory course students will work in the CRLS Media Arts Studio to study the basics of audio production and sound design. The course will cover recording with microphones, basic digital music composition and mixing, designing sound for film and video, and the fundamentals of sound-physics.

### TM106 | HN | MUSIC PRODUCTION 2

Students will advance their understanding and comprehension of audio engineering through music production and sound for-film application. Techniques covered will include MIDI triggering, scoring and recording music for film, ADR, Foley, SFX generation, multi-miking and mixing with Logic Pro and recording with Pro Tools. This course will explore the roles and responsibilities of music producers and engineers from idea inception to finished product. Comprised of 3 mini units - Basics of Audio Technology, Hands on Original Experiences, and Critical Listening - the course will also address basic music composition and arrangement techniques related to analog and digital workflow. **Pre-Reqs:** Ensemble experience or other Sound class(es) suggested

### TM970 | HN | EXPERIMENTAL MEDIA

This is an advanced class for students who can demonstrate advanced media production skills to create art. Through individual and group collaborations students will explore the boundaries of image, sound, movement and editing to create expressive and abstract works. Each unit is launched with a little art history to inspire your creations. Projects will be shared with the community via installations, broadcasts on CEATV and screenings. **Pre-Reqs:** Experience recommended or instructor permission.

### TM971 | HN OPT | MEDIA JOURNALISM

Elevate youth voices, learn news camera, audio, scripting and refine your studio production skills as a part of the team that produces segments for The Word. This is a cooperative, multi-disciplinary learning environment where students brainstorm and create informative, engaging segments for episodes of our news broadcast on CEATV 98 and the Youth View Cambridge website. Can be taken for English elective credit. **Pre-Reqs:** Experience recommended or instructor permission.

### T612 | TC | DIGITAL FILM 1

Using basic production equipment, this course provides an overview of the elements and vocabulary common to all types of media production. It treats basic techniques of production planning, studio and field camera operation, lighting, audio, and editing. Students learn the fundamental stages of preproduction, production, and post-production. Students also learn the basic elements of storytelling, the foundation of all filmmaking.

**Pre-Reqs:** Career Interest Survey

### T712 | DIGITAL FILM 2

Advancing from Media Technology 1 or Digital Film 1, students will endeavor on a deeper technical aspect of television broadcasting. Students in this course acquire advanced practices in the studio in the areas of sound engineering, lighting design, switching, character generation, directing, and producing. Fieldwork expands into documentary assignments and more detailed pre-production planning, including writing treatments and scripts. Students edit shows live-to-tape, as well as learn advanced techniques in non-linear editing software. Student work is frequently entered into festivals and contests, as well as serve as programming for Cambridge Educational Access Channels 98 and 99. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Pre-Reqs:** Media Technology 1 or Digital Film 1

### T988 | DIGITAL FILM 3

This is an advanced course for those students who have excelled in their training in the TV Broadcasting program. Students at this level work as independent producers creating original programming for television, and may be eligible for a Co-op position either away from the high school or on-location. Level 3 students will be responsible for writing budgets, obtaining all appropriate releases and permits, managing studio and field productions as well as overseeing a crew on location and demonstrating advanced skills in technical areas as well as impeccable employability skills. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Pre-Reqs:** Media Technology 1 and 2

## Office of Student Services

### Autism Spectrum Disorder Program

The Autism Spectrum Disorder (ASD) Program is an eleven-month program designed for students diagnosed with an Autism Spectrum Disorder (ASD) who require intensive, specially designed instruction and support in order to access the curriculum. Students served in the program have needs in multiple areas such as communication, social, behavior and academic. The teaching staff is highly skilled in development, social interaction, verbal and non-verbal communication, distractibility, sensory integration, and Applied Behavior Analysis.

### Basic Academics Program

The Basic Academics Program is designed to address the needs of students who have moderate to severe disabilities across various domains (i.e. language, fine motor, gross motor,

social and cognitive). Students are taught with a modified curriculum broken down into small obtainable tasks, related to real life experiences, and aligned to the Massachusetts Curriculum Frameworks. The program is provided across the core academic areas in grades 9-12.

### **Executive Functioning**

This research-based program strives to improve students' academic performance by encouraging the development of executive functions—the ability to plan, strategically solve problems, self-regulate behavior, make decisions, pay attention, monitor and evaluate performance, and manage time. Teaching and reinforcing executive function skills helps students build organizational and time-management proficiencies for life. Teacher approval is required for this course.

### **Functional Academics**

The Functional Academics Program is part of the continuum of services from the elementary Basic Academics Program. It is offered to students in grades 6-12 who have moderate to severe disabilities across various domains (i.e. language, fine motor, gross motor, social and cognitive). The program primarily focuses on functional academics, life skills and social skills development. Students are taught with a modified curriculum that is aligned to the Massachusetts Curriculum Frameworks.

### **Academics Program**

The Academics Program is designed to address the academic needs of students who are diagnosed with a specific learning disability and who are performing significantly below grade level. The goal of the program is to ensure maximum progress and success so that students are successful in the general education curriculum. The program is instructed using a structured, sequential, multisensory, systematic reading and language arts approach to instruction.

### **Structured Academics Program**

The Structured Academics Program is a therapeutic program. The program provides academic, social, emotional, and behavioral interventions and supports for students who meet the eligibility requirements for special education and is outlined in their Individual Education Plans (IEPs).

### **CRLS Post-Graduate Program**

The Post-Graduate Program provides a continuation of special education services for students on IEPs who are evaluated by school-based teams and subsequently recommended for this programming following graduation from CRLS. The goal of this program is to strengthen the skills necessary for successful transition to a post-secondary life, such as vocational and career readiness, independent living, community access and navigation,

social skills, money management and financial literacy, health and safety, self-management, post-secondary education, and self-determination. All of these skills are determined by a student's team and based off of ongoing transition assessment results. Additionally, this programming facilitates collaboration with state adult agencies that support students' postsecondary transition planning, such as Massachusetts Rehabilitation Commission (MRC), Department of Developmental Services (DDS), Department of Mental Health (DMH) and Department of Children and Families (DCF).

There are three instructional aspects of the Post-Graduate Program, including the (1) Life Skills Autism Spectrum Disorder (ASD) Classroom, (2) Functional Academics Postgraduate Classroom, and (3) Moderate Postsecondary Classroom.

## **RSTA**

**Expectation:** A CRLS student applies a variety of technologies to build and convey understanding.

Welcome to the exciting world of Career & Technical Education (CTE) at the Rindge School of Technical Arts. The City of Cambridge and its surrounding communities are rich in technology and we have designed our programs to reflect our commitment to prepare young people for continuing education at post-secondary institutions or to enter their field of study upon graduation. Since 2006, approximately 90% of CRLS graduates who have majored in a CTE field of study at RSTA have been accepted to college. RSTA offers twelve (12) three-year CTE programs of study ("majors") and a number of one-semester electives in several programs, including Automotive, Engineering, Business Education, Carpentry, Banking, and Biotechnology. Students who matriculate through RSTA one-semester courses and/or multi-year programs gain skills, knowledge, confidence, and self-esteem. The programs in the RSTA department provide hands-on experiences that reflect the real world of work in career fields of student interest. Remember, at some point in life, everyone earns his or her own living!

The Rindge School of Technical Arts is the CTE department of CRLS and is open to all Cambridge Rindge & Latin School students. Our freshman Exploratory elective offers ninth graders the opportunity to experience RSTA programs in a way that will expand their knowledge and experiences in making choices about their futures. Typically, students who choose to major in one of our programs take the Level 1 course in that field as sophomores, the Level 2 course as juniors including clinical experiences for those who qualify and who choose it, and the Level 3 course, with the possibility of a Cooperative Education experience for seniors who apply and are qualified. The twelve Chapter 74-approved three-year programs are: Auto Technology, Biotechnology, Carpentry,



Computer Science, Creative Design, Culinary Arts, Cybersecurity & Information Technology, Early Education and Care, Engineering, Print & Production, Health Assisting, and Media Technology.

Our facilities are exceptionally well-equipped and our dedicated faculty is highly qualified and fully-licensed. RSTA students receive challenging experience-based training complemented by appropriate academics to help round out their career and technical education. All of our technical areas offer pathways to technical, two-, or four-year college matriculation, as well as offering college credit at selected schools for those who qualify. All RSTA students develop a career plan with the help of the RSTA Career Advising faculty. A career plan helps students identify their skills and interests, discover what careers best suits them, and what skills and training they will need. By developing a career plan, students focus on what they want to do and plan a route to get there.



### **B627 | ENTREPRENEURSHIP/BUSINESS**

Students in this class will investigate the operations of businesses and look at the skills and knowledge needed to start and maintain a business. Practical skills covered include identifying entrepreneurial opportunities, creating a business plan, securing financial backing and coordinating and stimulating business growth. Students will hone their presentation and public speaking skills as they research and pitch ideas for new business opportunities. Students will also identify contemporary entrepreneurs and explore the successes, failures and strategies that help to propel them to billionaire status. **Grades:** 10, 11, 12

### **B630 | MARKETING & RETAIL MGMT**

The Marketing course exposes students to the fundamental principles of marketing: consumer behavior, product pricing, promotion, distribution, and retail management. Students are given the opportunity to practice their marketing and managerial skills in a “live work” setting, The School Store. In The School Store, students will assume various roles in the operation such as: sales, inventory control, finance, security, advertising, merchandising, and personnel management. **Grades:** 11, 12

### **B940 | BANK OPERATIONS**

Bank Operations is a course for SENIORS only, preference will be given to seniors who have successfully completed another Business Ed. course. Students serve as members of the operational team, in conjunction with bank supervisors of the East Cambridge Savings Bank (ECSB), CRLS branch, and a business teacher/supervisor. Students have the opportunity to experience the Real World in a bank setting during the one week PAID summer training at the main branch of the ECSB before the beginning of the fall semester. East Cambridge Savings Bank also offers CRLS seniors who either enrolled in this program or plan to attend business schools an opportunity to win a \$1500 scholarship at the end of their high school year. All student bankers automatically get their special one-page display in the year book, a courtesy of the bank. Following the paid training, all students are required to write a narrative regarding their professional experience in a real bank setting and publish it in the spring issue of the Register Forum to educate other juniors about this course/internship. **Grades:** 12 **Pre-Reqs:** Induction Program and Instructor Approval.

### **B985 | PERSONAL FINANCE**

Welcome to the real world, because “money matters!” Today’s graduates are faced with multiple financial decisions affecting their future. Financial Literacy is important as graduates move forward in life through the workforce, college, and other endeavors. To compete in today’s world, they need to have some basic understanding of the financial situations they will face. This course will introduce students to a variety of topics, including money management, credit, loans, taxes, insurances, savings, investing, personal budgets and the value of bank reconciliation. Buying a home or a car, choosing retirement plans, preparing a will and testament are also integral parts of the course. Students will be introduced to the Consumer Protection Act and related regulations that would help them become knowledgeable consumers. In addition to field trips and documentaries, many components will be presented by financial advisors/bankers from the community to support the curriculum. Knowing how to manage and protect one’s assets is important for everyone to know. It is a practical life skill! **Grades:** 10, 11, 12

### **T120 | TECHNICAL ARTS EXPLORATORY**

Students rotate through hands-on learning activities in all RSTA program areas: Automotive Technology, Business Education, Biotechnology, Career Planning, Carpentry, Computer Science, Creative Design, Culinary Arts, Early Education & Care, Health Assisting, Hospitality, Cybersecurity & Information Technology, Media Arts Technology, and Print & Production. Students learn fundamental elements of each area and what it’s like to work in that field. Students are provided with a broad range of experiences including problem-solving, working in teams, and completing basic projects which are both fun and challenging. In every rotation, students learn and apply the rules of work safety. In the Career Planning segment, students take a basic career interest inventory and learn about their talents and strengths. Students are expected to compare potential careers with self-awareness of their own learning styles and strengths, and list reasons why a particular career is a good fit or not. **Grades:** 9

### **T131 | FRESHMAN CHILD STUDY & HEALTH CAREERS**

This introductory course for freshmen is designed for the student who likes to work in a caring way with others and who wants to explore careers in education, health care, and the many fields related to them. Students will spend half of the semester learning about human growth & development and the types of careers one can explore related to young people, and one half of the semester learning about health/medical terminology & protocols, working with patients, and the many careers related to the health care industry. **Grades:** 9

### T132 | FRESHMAN AUTOMOTIVE TECHNOLOGY

This introductory course is only for 9th graders who have a strong interest in the automotive industry. Students will learn how to perform basic repairs and maintenance on current automobiles and light trucks. This is an opportunity for students to be introduced to the entry level tasks required by new car dealerships and local independent repair facilities, including: vehicle identification, fluid & filter replacement, tire services, brake pad replacement, and essential electrical repairs. Safety tests must be passed before students can participate in the shop. After successful completion of this course, a student can continue automotive technology education as a Level 1 sophomore. **Grades: 9 Pre-Reqs: None**

### T135 | FRESHMAN FILM

This course allows you to explore the world of media making through creating your own personal and group video projects. Learn basic camera operations such as what makes good composition, different types of shots and angles, effective camera movement, different visual storytelling techniques and studio production. Gain an introduction to basic audio recording, lighting design, and editing tools such as Final Cut Studio and Adobe Premier. This class is an opportunity for students to learn how to make different types of videos such as documentaries, movie trailers, narrative shorts, PSAs, music videos and stop motion animation. Completed student work will be shown on SMART TV98 and on the Media Arts Studio web site. **Grades: 9**

### T137 | FRESHMAN DESIGN

This freshman only design course is for 9th grade students who are creative and have an interest in computers, art, and design. Students will gain exposure to essential design skills, computer skills, design software and visual problem solving and communications. Students will learn the basics of Adobe Illustrator and will learn how to use the drawing tablet and scanner. Students will be introduced to the fundamentals of design and will complete basic design projects that will be both challenging and fun. This class will include frequent group and individual critiques of student work. A student cannot be placed in this course after September 18 unless s/he can demonstrate to the instructor adequate Adobe Illustrator knowledge & skills to proceed at the level at which the class is functioning. Students who complete this course and who enjoy it would benefit from enrolling in Creative Design Level 1 (T605) as 10th graders the following year. Offered ONLY Semester 1 (fall) Block 1. **Grades: 9**

### T502 | HN | FAST TRACK ENGINEERING

This course is an accelerated offering for students considering a career in engineering. This is an accelerated version of Engineering 1, described above. Students will learn to communicate their ideas using hand sketching and Computer Aided Design (CAD). Students will generate prototypes and incorporate computer integrated manufacturing in this process. Students who successfully complete this course will also be eligible to continue as Level 2 Engineering students. (students who continue in this program may also become eligible for a Co-Op Ed. Position in their senior year.) **Grades: 9, 10, 11 Pre-Reqs: Open to grade 9,10, and 11, students not currently or previously enrolled in Engineering Level 1, 2, or 3, or with approval by the Engineering instructors.**

### T503 | ROBOTICS/FIRST

In this course students learn ways of making a robot using the state-of-the-art RSTA facility in conjunction with MIT faculty and students and other local engineers. This hands-on course will focus on the fundamentals of robot design, building, function, and programming. The required culminating project will be a robot presentation in a regional competition and possibly participation in a national FIRST robotics contest. The classes will be required to meet at least twice a week (after school hours required) during the FIRST robot build season which runs through January and early March. Additional after school hours and Saturday participation will be required for students enrolled in this course and will be considered as part of their grade. **Grades: 10, 11, 12 Pre-Reqs: Open to grade 10-12 students with approval by the Engineering instructor. This course is different each semester, so it can be taken multiple times with permission of the instructors**

### T504 | HN | ROBOTICS 2

Level 2 robotics is for students that have successfully completed Introduction to Robotics (Level 1). Building on knowledge of robots and sensors, students complete more advanced robotic and programming tasks. The Arduino controller is introduced. After reviewing robotic concepts, students create a project of their own choice and apply what they have learned. **Grades: 10, 11, 12 Pre-Reqs: Open to grade 10, 11, 12 students with approval by the Engineering instructor. This course is different each semester,**

### T527 | HN | COMPUTER SCIENCE 2

Computer Science 2 is a continuation of the RSTA Computer Science curriculum. Students will spend the year learning web design and development, Arduino microcontrollers, and Video Game Design (see electives T527A, T527B & T600 below for details). Over the course of the year, students will learn about Arduino microcontrollers, HTML5, CSS3, JavaScript, and Unity as well as career readiness skills for the software industry. This course includes an embedded Wellness component. **Grades: 10, 11, 12 Pre-Reqs: Students in this course will not be required to take a separate Wellness course. Prerequisite: CS/IT 1 (T604) or AP CSP (T608), or HN Computer Principles; AP CS (M416, may be concurrent)**

### T527A | WEB DESIGN & DEVELOPMENT

The Web Design & Development curriculum is an introduction to the design, creation, and maintenance of web pages and websites. Students learn how to critically evaluate website quality, how to create and maintain quality web pages, learn about web design standards, and learn to create and manipulate images. The course progresses from introductory work on web design to a culminating project in which students design and develop websites for local community organizations. **Grades: 10, 11, 12**

### T527B | HN | VIDEO GAME DESIGN & DEVELOPMENT

The Video Game Design & Development curriculum is an introduction to the design and creation of video games. Video game development combines many of the most challenging concepts in computer science including computer graphics, artificial intelligence, human-computer interaction, and more. Students will work in two week cycles to program their own ideas or recreate existing games. Knowledge of object oriented programming from successful (C+ or better) completion of AP CS is required **Grades: 10, 11, 12 Pre-Reqs: C+ or better in AP Computer Science**

### **T600 | HANDS ON PROGRAMMING WITH ARDUINOS**

This course will demonstrate the capabilities of the arduino microcontroller platform by presenting challenges that require the ingenious use of electronic components (motors, light sensors, distance sensors, timers, etc) to solve a real life problem, like creating a machine that automatically feeds a pet or a plant while we are on vacations. Or creating a machine that opens a door in our house when we hit it using a secret knock knock code. This course walks the students through the basics in a hands-on way, and the ultimate objective is that electronics and code become creative tools that everyone can use - like brushes and paint, to solve problems in our daily life. Sensors listen to the physical world, actuators transform electricity into action in the physical world. In this course, the students will code their own programs to create a machine that listens to sensors and makes actuators perform actions to solve a challenge.

**Grades:** 9, 10, 11, 12

### **T601 | CARPENTRY 1**

Using a competency-based, industry-relevant curriculum, students in Carpentry 1 learn introductory techniques and materials of building construction, which includes basic shop and tool safety, project planning, measurement, power tools, building materials, rough cutting, assembly, and finishing techniques. **Grades:** 10, 11 **Pre-Reqs:** Career Interest Survey

### **T602 | CULINARY ARTS 1**

Using a competency-based, industry-relevant curriculum, students learn basic skills needed to work in a professional kitchen or bakery. Through direct experiences, students develop and apply basic cooking and baking skills, sanitation and kitchen safety skills, demonstrate cooperative and productive work habits, as well as develop and demonstrate an understanding of basic nutrition through menu planning. This course also includes a Hospitality/Tourism Management component. **Grades:** 10, 11 **Pre-Reqs:** Career Interest Survey

### **T602L | CULINARY FOUNDATIONS**

In this introductory course, students learn the fundamental concepts and practices related to preparing food in a commercial kitchen. Safety, sanitation, measurements, knife skills, customer service, and basic cooking and baking skills are practiced. Students will begin to develop a foundation for employment in the food service industry and gain an understanding of the many professions it encompasses.

### **T603 | HN | ENGINEERING 1**

This course consists of two Project Lead the Way (PLTW) units of study: "Introduction to Engineering Design" (IED) and "Computer Integrated Manufacturing" (CIM). Students in this course develop problem solving skills and learn the engineering design process, using Computer Aided Design (CAD). Projects consist of challenging, hands-on activities that lead to conceptual learning. CIM is a course that continues to build on skills in computer modeling design and exposes students to fundamentals of computer controlled machinery. This course emphasizes design fundamentals such as engineering documentation, and using the design process to solve engineering problems, including prototyping solutions. Students also learn new skills related to the use and programming of CNC equipment, Computer Assisted Manufacturing (CAM), robotics, and flexible manufacturing systems. **Grades:** 10, 11, 12 **Pre-Reqs:** Career Interest Survey. This course includes an embedded Wellness unit; students are not required to enroll in an additional Wellness class.

### **T603L | TC | CIVIL ENGINEERING & ARCHITECTURE**

Students in this introductory course learn important aspects of building and site design and development. Students apply mathematics, science, and standard engineering principles and practices. to design both residential and commercial projects and to document their work using 3-D architectural design software. **Grades:** 10, 11, 12

### **T604 | HN OPT | CYBERSECURITY & INFORMATION TECHNOLOGY 1**

This full-year class is intended for students interested in beginning the RSTA Computer Science or Cybersecurity/Information Technology programs. Students will spend half the year learning information technology basics and the other half learning computer science. CS will follow the same curriculum as the math version of the class (M415) with an additional focus on software career readiness. The C/IT component is an introductory course in which students acquire an understanding of C/IT fundamentals. The class will cover operating systems, virtual machines, cloud computing, information security, networking, databases, and operational procedures. This course includes an embedded Wellness component. **Grades:** 9, 10, 11 **Pre-Reqs:** Students in this course will not be required to take a separate Wellness course. For the one semester version of CS/IT 1 that does not include wellness component, see the AP Computer Science Principles (T608). Prerequisite: Career Interest Survey

### **T605 | HN OPT | CREATIVE DESIGN 1**

Students in this introductory level course begin learning & applying the fundamentals of graphic design in ways that are both challenging and fun. Using up-to-date Macs, students learn how to use design software including Adobe Illustrator and Photoshop, digital cameras, scanners, and drawing tablets. Students create and design original artwork that will be applied to many different projects including: t-shirts, personal logos, magnets, buttons, holiday cards, vinyl license plates, and more. Students also further their understanding of the design process through client-based "live ; work projects. Student participation and classroom collaboration is an essential component of this course. This course includes frequent individual and group critiques of student work. Strong computer skills are necessary. A student cannot be placed in this course after September 18th unless they can demonstrate to the instructor adequate Adobe Illustrator knowledge & skills to proceed at the level at which the class is functioning. This course includes a Wellness component. **Grades:** 10, 11

### **T607 | PRINT & PRODUCTION 1**

In this course students learn the fundamentals of the production processes as they apply to modern paper and fabric printing. Students learn all facets of the printing industry, including press operations and pre-press. Students learn how to use professional level software for desktop publishing, a wide variety of silk screen applications, dye sublimation as well as how to operate press, bindery, and digital imaging equipment. This course includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 10, 11 **Pre-Reqs:** Career Interest Survey

### T608 | AP | COMPUTER SCIENCE PRINCIPLES

Students with or without programming experience can take this intermediate level course, in which students will learn the central ideas of computer science, inviting students to develop the computational thinking vital for success across multiple disciplines. The course is taught in Python and is unique in its focus on fostering students to be creative and encouraging students to apply creative processes when developing computational artifacts. This class will prepare students to take the AP Computer Science Principles exam. Students who successfully complete this course will be eligible to continue as RSTA Comp Sci 2 or Info Tech 2 students, which can lead to Level 3 paid Co-Op Ed positions, if eligible. AP CSP is complementary to AP CS and can be taken in any order or at the same time.

### T609 | AUTO TECHNOLOGY 1

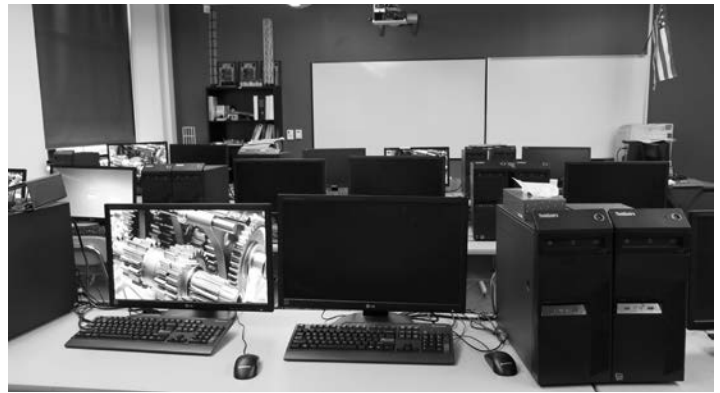
Students in this course learn the principles and operations of the many automotive systems. This course is designed to introduce students to vehicle preventative maintenance, basic repairs, and how to use an electronic service manual. All students must pass a safety course before they are allowed to perform any hands-on competencies in the automotive lab or the service area. This course also includes an embedded Physical Education and Health component. Students in this course will not be required to take a separate Wellness course. **Grades:** 10, 11

### T610 | HN | INTRODUCTION TO BIOTECHNOLOGY (BIOTECH 1)

Biotechnology 1 is a laboratory course designed to introduce students to the field of biotechnology including fundamental techniques, lab safety, career exploration, and bioethical issues. Students learn a range of laboratory skills from solution preparation to polymerase chain reaction (PCR), genetic transformation, gel electrophoresis, microbiology, and spectrophotometry. Students formulate research questions, design experiments, generate and analyze data, and document results. Through field trips, guest lectures, and self-directed outreach, students interact with professionals in a variety of contexts and explore a range of careers within the biotechnology industry. Writing and presentation skills are emphasized and practiced throughout the course.

### T611 | HEALTH ASSISTING 1

Students in this course learn to use proper medical terminology and acquire the basics of health care techniques and procedures. The students gain an understanding of anatomy and physiology as they relate to each disease process. The emphasis of learning is on the application of the fundamental medical skills as they relate to the human body. (Example: The Cardiac System -- learning to take a Blood Pressure). The students also explore health careers and gain a general knowledge about procedures used in various health care settings (Nursing Homes, hospitals, ambulances, etc.). Community projects and some learning may take place at local health care facilities. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 10, 11 **Pre-Reqs:** Career Interest Survey



### T612 | TC | DIGITAL FILM

Using basic production equipment, this course provides an overview of the elements and vocabulary common to all types of media production. It treats basic techniques of production planning, studio and field camera operation, lighting, audio, and editing. Students learn the fundamental stages of preproduction, production, and post-production. Students also learn the basic elements of storytelling, the foundation of all filmmaking. **Pre-Reqs:** Career Interest Survey

### T627 | HN OPT, TC | COMPUTER SCIENCE 3

Computer Science 3 is a continuation of the learning done in CS1 and CS2. Students will continue to hone their programming skills through either a project-based class. Students will focus on increasing their knowledge of a computer language of their choice and learn at least two new languages. This course includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course.

Seniors that meet the State eligibility requirements may be able to participate in cooperative education in the Spring semester. **Pre-Reqs:** Computer Science 2

### T712 | DIGITAL FILM

Advancing from Media Technology 1 or Digital Film 1, students will endeavor on a deeper technical aspect of television broadcasting. Students in this course acquire advanced practices in the studio in the areas of sound engineering, lighting design, switching, character generation, directing, and producing. Fieldwork expands into documentary assignments and more detailed pre-production planning, including writing treatments and scripts. Students edit shows live-to-tape, as well as learn advanced techniques in non-linear editing software. Student work is frequently entered into festivals and contests, as well as serve as programming for Cambridge Educational Access Channels 98 and 99. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Pre-Reqs:** Media Technology 1 or Digital Film 1

### T746 | HN OPT | CYBERSECURITY & INFORMATION TECHNOLOGY 2

IT 2 is a continuation of the RSTA IT curriculum. Topics include hardware support, networking, and advanced server configuration. Special emphasis is placed on cybersecurity including password security, information gathering, and encrypted connections such as VPNs. This course includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 10, 11, 12 **Pre-Reqs:** CS/IT 1, HN Computer Principles, or AP Computer Science Principles

### T750 | EEC1: CHILD GROWTH & DEVELOPMENT

This course introduces students to the study of Child Growth and Development from birth to age 5. Students will learn about the brain development of infants and toddlers and attachment theory. Students acquire the knowledge to promote health and safety with the children in their care and ways to make a positive difference in the lives of children. Students will learn and practice observational skills as a tool to learn about how children grow and develop. Through reflection, students will develop an increased self-awareness to uncover the influence their own experiences play in their interactions with children. Students will compare and contrast child rearing practices across different cultures to acquire an appreciation for cultural perspectives other than their own. Students learn about developmentally appropriate practice and apply their knowledge by selecting developmentally appropriate books, toys, and activities to engage young children. Students will begin to practice their DAP knowledge through direct interactions with young children. Students in this course will not be required to take a separate Wellness course. **Grades:** 10, 11

### T751 | HN OPT | EEC2: EARLY CHILDHOOD PROFESSIONAL

Students in this course begin to acquire the knowledge and skills prerequisite for becoming an early childhood professional. Students will study the social, emotional and physical development of preschool to school-age children. Students will develop their research and technology skills as they prepare for class presentations and technology based projects. Students will develop their writing skills as they prepare for college and professional careers. Students learn how to promote children's health and safety in the child care setting. Students will apply theory to their observations and work with children in a child care center. Students will develop skills to work directly with children 2-3 days per week, second semester. Students will assess and develop the 21st century skills needed to work directly with children. Students will explore careers in Early Childhood Education and related fields. Students develop strategies and skills for the guidance and discipline of young children. Students learn about developmentally appropriate practices and apply their knowledge by selecting DAP activities that engage young children. Students will learn to facilitate a small group activity and perform a small group read aloud. Students develop an increased sense of their own cultural awareness as they plan and facilitate activities that support diversity and foster understanding of differences in the classroom. Only students who have successfully met performance expectations will be placed at a practicum site. Students in this course will not be required to take a separate Wellness course. **Grades:** 11, 12 **Pre-Reqs:** \*Satisfactory completion of Level 1, T750 or \*Instructor permission \*Ability to work independently and consistently follow instructions.

### T752 | HN OPT | EEC3: CHILD CARE TODAY

This is a full year course that meets 1st block Fall semester and 1st & 2nd block Spring semester to accommodate field placement. Students in this course will continue to strengthen their 21st century skills pre-requisite for working as an early childhood professional. Students will develop skills to work directly with children 3 days per week, second semester with hands on learning in a child care classroom. Students will develop and apply strategies for the guidance and discipline of young children. Students will build on their observational skills as a tool to assess children's development. Students plan for and gain practice promoting children's health and safety in the child care setting. Students will apply theory to their observations and work with children in a child care center. Students apply their knowledge of developmentally appropriate practice by designing a curriculum for young children. Students will learn how to promote an anti-biased approach to curriculum that embraces diversity and fosters an understanding of differences. Students will learn how to design and plan for the set-up of an early childhood classroom. Students will learn to facilitate group activities and perform large group read-alouds and lead circle time. Students will hone their communication and writing skills as they prepare for college and professional careers. Students will engage in project based learning to enhance their research, technology and professional presentation skills. Only students who have successfully met performance expectations will be placed at a practicum site. Students in this course will not be required to take a separate Wellness course. **Grades:** 12 **Pre-Reqs:** \*Satisfactory completion of Level 2, T751 or \*Instructor permission \*Ability to work independently and consistently follow instructions

### T841 | CARPENTRY 2

This course is for students interested in developing marketable skills in building construction and carpentry. Students learn the basics of rough and finish carpentry, which includes foundations; wall, floor, and roof framing; installation of windows and doors; and some exterior finish work. Students learn to use a full range of woods, techniques, tools, and woodworking machines as they complete their projects. Students will also be exposed to CAD for carpentry and will participate in the 10-hour OSHA course. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 11, 12 **Pre-Reqs:** Carpentry 1

### T842 | HN OPT | CULINARY ARTS 2

Students rotate through cooking, catering, bakery, and front of the house management. Through direct application, students develop and demonstrate an understanding of the theory and practice of Culinary Arts and food service management. Students further refine their skills and knowledge during the first semester and then complete a culinary arts project, sanitation and safety skills, and basic nutrition, as seen through menu planning, cooperative work skills, and food preparation for the Falcon's Nest Cafe. Projects will be exhibited to the Culinary Arts Advisory board for critique. This course will also include a Hospitality/ Tourism Management component. This course includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Pre-Reqs:** Culinary Arts 1



### **T843 | HN | ENGINEERING 2**

This is an Honors Level course in Engineering (also called “Principles of Engineering”) where more classical engineering systems are learned in order to prepare students for the type of calculations they will be asked to perform on the job or in college. Many engineering problems from hydraulics and pneumatics to simple machines are introduced. Theoretical and hands-on problem-solving activities are emphasized. Project examples include robotics, materials testing, developing a gear train, and additional advanced CAD modeling skills. In the second half of the year, students learn digital electronics (DE). The DE component is a unit of study in applied logic that encompasses the application of electronic circuits and devices. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices. Students will also learn basic skills related to the new Advanced Manufacturing Lab. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 11, 12 **Pre-Reqs:** Engineering 1, Engineering Design/CIM (FastTrack), or approval by the engineering instructors

### **T845 | HN, TC | CREATIVE DESIGN 2**

Students in this Honors Level intermediate course continue developing and refining their skills through a combination of client based & “live-work”; projects, teacher generated and self-directed assignments, projects, and exercises. Students continue to develop problem solving and visual design skills while improving their care and attention to detail while gaining proficiency with studio equipment. Students further their understanding of design through “live”; work projects. Students continue to develop visual, illustration and photography skills. Students continue to expand their knowledge and further develop computer skills using Adobe Creative Suite software (Illustrator, Photoshop, InDesign, Acrobat) and learn various forms of multimedia design--creating animations, websites, and digital video. Students will develop a digital and print portfolio. This course includes a Wellness component. **Grades:** 11, 12 **Pre-Reqs:** Creative Design 1 or with the approval by the instructor. In Semester 1 only Block 2; In semester 2 Blocks 1 AND 2 (27.5 credits = 3 blocks)

### **T847 | PRINT & PRODUCTION 2**

This course encourages students to develop their skills based on printing requests from real clients. Students continue to learn more skills of the industry including desktop publishing and pre-press techniques. Students acquire higher level skills in the areas of press, screen printing, dye sublimation, bindery, and digital imaging by planning and executing jobs for clients in these areas. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 11, 12 **Pre-Reqs:** Print & Production 1, Offered Block 4 Sem1 and Blocks 3&4 Sem2.

### **T849 | AUTO TECHNOLOGY 2**

This intermediate level course provides opportunities for second year auto students to learn more advanced automotive systems. Students will become familiar with the operation, maintenance, and repair of hydraulic and ABS brakes, suspension systems, and engine performance. This course will include a review of Level 1. This course also includes an embedded Physical Education and Health component. Students in this course will not be required to take a separate Wellness course. **Grades:** 11, 12 **Pre-Reqs:** Automotive Technology 1

### **T851 | HEALTH ASSISTING 2**

This course of study allows students to apply basic health care skills to a health care setting. The curriculum emphasis is on the physical changes and health problems related to the aged. Students learn to use knowledge and skills in communication, ethics, confidentiality, interpersonal relations, problem-solving, and critical thinking. The acquisition of knowledge occurs in the classroom, lab, and off-site facilities with the Primary site being a skilled nursing facility. After completion of this course, students may take the Massachusetts Department of Public Health’s Nursing Assistant test and become certified as a CNA. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 11, 12 **Pre-Reqs:** Health Assisting 1

### **T870 | HN | BIOTECHNOLOGY 2**

Biotechnology Level 2 (Honors) is a year long course through which students build upon the foundation established in Biotech 1. Students engage in projects that involve manipulation of recombinant DNA, restriction analysis, PCR analysis, biomanufacturing, transformation, protein expression and purification, bioinformatics and ELISA. Independent projects provide opportunities to investigate individual areas of interest, promote independence, and develop problem-solving abilities. The course is designed for continued development of 21st Century Skills important for success in the workplace. Through field trips and guest lectures, students have the opportunity for exposure to a wide range of science careers and to interact with professionals from the biotech industry, academia, and hospitals. Sound research and presentation skills are continually emphasized and practiced. The course is designed for continued development of 21st Century Skills important for success in the workplace. Through field trips and guest lectures, students have the opportunity for exposure to a wide range of science careers and to interact with professionals from the biotech industry, academia, and hospitals. Students in this course will not be required to take a separate Wellness course.

### **T980 | HN | BIOTECHNOLOGY 3**

Biotechnology Level 3 is a full-year, Honors level, science elective course tailored to students with a strong interest in science & research. Students will further their knowledge foundation from Biotech 1 & 2 and apply them by learning how to read primary source literature, presenting at Journal Clubs, and ultimately by designing & writing a research proposal on a topic of their choice. In parallel, students will practice important lab techniques such as mutagenesis & gene editing to develop further understanding of the skills needed to be successful in a research environment.

### **T981 | HEALTH ASSISTING 3**

This course offers students the opportunity to receive academic and employability skills necessary for entry level health care positions, such as nursing assistant, dietary aid, & continuous care observers. Students may advance their academic, medical, and employability skills by learning special advanced procedures and applying them to the work force. The goal of the course is to allow students to make the connections from school-to-work within a health care setting. Level 3 seniors who are eligible may apply for Cooperative Education placement opportunities in their area of study. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 12 **Pre-Reqs:** Health Assisting 1 & 2

### **T983 | HN | ENGINEERING 3**

Students learn concepts of robotics and automated manufacturing in this Honors Level course, using “Computer Aided Design” (CAD) and “Computer Integrated Manufacturing” (CIM). CAD continues to expand students’ skills in computer modeling design and exposes students to fundamentals of computerized manufacturing technology. Students refine and expand their knowledge of prototyping, CNC equipment, CAM software, robotics, and skills used in the Advanced Manufacturing Lab. Students have the opportunity to invent a new product or make improvements to an existing one. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices. Qualified students will be offered the opportunity to participate in a Cooperative Education placement at one of the local engineering firms. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 12 **Pre-Reqs:** Engineering 1 or FastTrack Engineering and Engineering 2

### **T986 | HN OPT | CYBERSECURITY & INFORMATION TECHNOLOGY 3**

Information Technology 3 is a continuation of the learning done in IT1 and IT2. Students will continue to hone their IT skills through either a project-based class or a work experience with a local company. Students will continue to learn about advanced server and networking technologies as well as working in a business environment. This course includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 11, 12 **Pre-Reqs:** Information Technology 2

### **T987 | PRINT & PRODUCTION 3**

This course allows students to work independently on real printing request with minimal instruction. Students specialize in one area to develop strong skills for industry. Those areas include desktop publishing, pre-press, press, bindery, screen printing, dye sublimation, and digital imaging. Level 3 seniors who are eligible may apply for Cooperative Education placement opportunities in their area of study. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 12 **Pre-Reqs:** Print & Production 2 Offered block 4 sem1 and blocks 3&4 Sem2

### **T988 | DIGITAL FILM**

This is an advanced course for those students who have excelled in their training in the TV Broadcasting program. Students at this level work as independent producers creating original programming for television, and may be eligible for a Co-op position either away from the high school or on-location. Level 3 students will be responsible for writing budgets, obtaining all appropriate releases and permits, managing studio and field productions as well as overseeing a crew on location and demonstrating advanced skills in technical areas as well as impeccable employability skills. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Pre-Reqs:** Media Technology 1 and 2

### **T989 | AUTO TECHNOLOGY 3**

Students in this third level of automotive study will be introduced into high tech computer diagnostics and the electrical and electronic automotive systems used in today’s vehicles. Students will learn to identify automotive input and output sensors and their operation. Using desktop computers and simulators students will learn to diagnose and assemble automotive circuits. Level 3 students who are eligible may apply for Cooperative Education placement opportunities in their area of study. A review of levels 1 and 2 will conclude this course of study. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 12 **Pre-Reqs:** Automotive Technology 1 and 2

### **T991 | CARPENTRY 3**

This advanced level course is for seniors who have a serious interest and want a future career in the Construction Industry. Students apply the skills they acquired in Carpentry 2 on interior finish work of doors, floors, and ceilings; stairs; walls; and roof systems. Hands-on experience is obtained in the shop, school, and community. Students will also learn about apprenticeship opportunities in the construction field and qualified Level 3s will have the opportunity to apply for Cooperative Education placement. This course also includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 12 **Pre-Reqs:** Carpentry 1 and 2

### **T992 | HN OPT | CULINARY ARTS 3**

Students propose and implement an in-house project during part of the school year. Using skills and competencies which the students have developed, students supervise the operation of the Falcon’s Nest Cafe. Seniors are made aware of possible Cooperative Education work, internship opportunities, and community service projects. Students enrolled in Culinary 3 who are applying to post-secondary colleges, have the opportunity to earn the ServeSafe certification. Students also prepare demonstrations for Culinary 1 and Culinary 2 students as well as mentor Culinary 2 students. This course also includes a Hospitality/Tourism Management component. This course includes an embedded Wellness component. Students in this course will not be required to take a separate Wellness course. **Grades:** 12 **Pre-Reqs:** Culinary Arts 1 and 2

### **T995 | HN | CREATIVE DESIGN 3**

Students in this Honors Level advanced course continue developing and refining their skills necessary to be successful in either entry-level positions as a design professionals and preparation for postsecondary education. This course is geared towards independent projects. Advanced and highly motivated students continue to create visual messages through live work assignments and design projects. Students focus on practical applications of previously learned skills with an emphasis on portfolio development and college and career exploration and preparation. Students continue to expand their computer skills using Adobe Creative Suite (Illustrator, Photoshop, InDesign, Acrobat) software. Student will develop and assemble a digital and print portfolio. Qualified students will be offered the opportunity to participate in RSTA’s Cooperative Education program in the design field. This course includes a Wellness component. This is a 3 period course offered ONLY Block 2 Sem 1 & Block 1&2 in Sem2. **Grades:** 12 **Pre-Reqs:** Creative Design 2

# Science

**Expectation:** A CRLS student applies a variety of technologies to build and convey understanding.

Science courses are designed to produce an organized sequence of experiences to help students to develop the ability:

- To distinguish between scientific evidence and personal opinion by inquiry and questioning;
- To recognize the role of observation and experimentation;
- To understand scientific theories;
- To gather information through laboratory, field trips, and library work;
- To understand, in some depth, the unifying themes of life and physical sciences.

Physics is the first course in a coherent order of science courses, taught conceptually and using the math of 8th and 9th grades and at the honors level only; chemistry is the second course, building on the knowledge of atomic structure to study the structures and properties of matter, and chemical reactions. Modern molecular-based biology is the third course in this hierarchy of science courses. In this sequence, physics concepts and topics underlie chemistry, and physics and chemistry support modern biology.

CRLS requires successful completion of three specific science courses for graduation: S102 Honors Physics, S201/S202 Chemistry, and S301/S302 Biology. If a student fails physics, chemistry or biology, he/she must repeat the course until successfully completed. A student may enroll in a required science course and an upper level science course at the same time with permission of instructors. S400 level courses are advanced science courses that assume students have solid foundations in physics, chemistry and biology. The course expectations reflect this advanced content.

Beginning with the class of 2010, all Massachusetts students must pass a Science MCAS exam in order to graduate from high school.

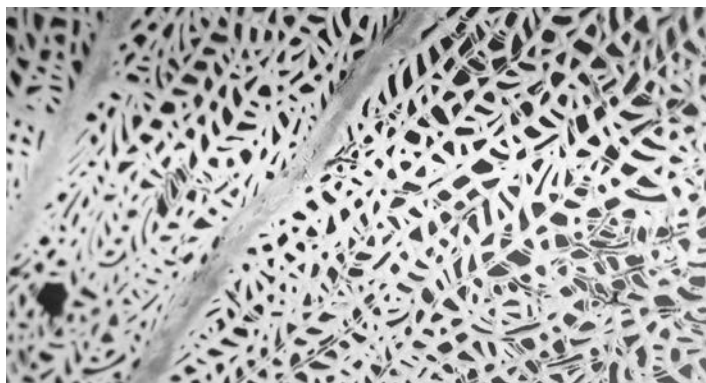
Download the Graduation with Distinction Chart >>  
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## S102 | HN | PHYSICS

Honors Physics First is a dynamic hands-on laboratory science course. The curriculum is split into four major units each of which includes a laboratory report and an culminating performance assessment. Lab work requires students to collect and mathematically analyze experimental data and communicate the results. In the first unit, students will study velocity, acceleration, Newton's Laws and momentum, in order to use the engineering design process to reduce forces during a collision (HS PS2-1, HS PS2-4, HS PS2-2, HS PS2-3). In the energy unit, students will study heat and energy to understand and present about renewable and innovative energy resources (HS PS3-1, HS PS3-2, HS PS3-3, HS PS3-4a). The electricity unit will focus on charge, electric circuits and electromagnetism in order for students to design an electrical toy or game (HS PS2-4, HS PS2-5, HS PS3-5, HS PS2-9). During the fourth unit students will study waves, sound and light and create a multimedia presentation about applications of waves in our lives (HS PS4-1, HS PS4-3, HS PS4-5). Students enrolled in Algebra 2 or a higher math course may elect to enroll in AP Physics 1 (S504A) in lieu of Honors Physics (S102). **Grades:** 9

## S201 | CHEMISTRY

Chemistry emphasizes science and engineering practices related to design and evaluation as well as investigation and modeling in order to explore matter and its interactions. The course is divided into three major units: 1) Form and Function, 2) Chemical Reactions, 3) Energy. The first unit focuses on students developing both molecular and subatomic models of matter and learning to rely on the periodic table as a powerful model for predicting a wide variety of properties of elements and compounds. Throughout the second unit, students are expected to apply mathematical reasoning when considering conservation of matter in chemical reactions and in comparing strength of acid-base solutions. Students will also refine their understanding of conservation of matter by making quantitative predictions of theoretical yields if reactions are driven to completion using stoichiometric molar proportions and molar mass calculations. During the third unit, students will rationalize observation of endothermic and exothermic changes in terms of energy required to break and form chemical bonds when structural rearrangements occur in chemical processes. Students will also build on the basic particle model of matter studied in upper school to add quantitative predictions of externally controllable or measurable properties of gases. During the semester, students are challenged to complete two Curriculum Embedded Performance Assessments (CEPAs), which are project based assessments, in order to demonstrate their knowledge of Unit 1 and Unit 2 topics. **Grades:** 10 **Pre-Reqs:** Physics and a successful completion of a grade 9 math class





### S202 | HN | CHEMISTRY

The curriculum of Honors Chemistry will address the three units that are explored in CP Chemistry; however the units will be studied more in depth. For example, during the “Form and Function” unit, students will explore intermolecular bonding and be able to rationalize why some classes of substances are better than others for specific practical uses. Students will also be asked to design molecular level structural specifications of substances that could have desired properties. During the “Chemical Reactions” unit, students will be asked to practice using two major models of reaction processes, the Bronsted-Lowry acid-base reaction model and the oxidation-reduction reaction model, to explain reaction patterns observed in many common phenomenon the natural world. Furthermore, during the “Energy “ unit, students will demonstrate understanding of energy transfer and dissipation of energy in chemical systems. They will practice comparing the efficiency of various fuels through the use of stoichiometric heat calculations. Students will also be required to complete two Curriculum Embedded Performance Assessments (CEPAs) throughout the semester. **Grades:** 10 **Pre-Reqs:** S101 Physics and a grade of B or better in freshman math class

### S301 | BIOLOGY | BIOLOGY

This course will explore the biological world from organic chemistry through basic ecological principles, and provide a foundation for advanced scientific investigation and study. This course will focus on current research in the dynamic and diverse field of biology through the following units: 1. Evolution; 2. DNA to Disease (protein synthesis and genetics); 3. Grow Something (ecology, biodiversity, reproduction); 4. You Are What You Eat (molecular biology, ecology). Research in scientific literature, lab skills, student presentations and problem solving techniques will complement the course. **Grades:** 11 **Pre-Reqs:** Physics and Chemistry

### S302 | HN | BIOLOGY

This course will explore the biological world from organic chemistry through basic ecological principles, and provide a foundation for advanced scientific investigation and study. This course will focus on current research in the dynamic and diverse field of biology through the following topics: (1) Evolution; (2) DNA to Disease (protein synthesis and genetics); (3) Grow Something (ecology, biodiversity, reproduction); (4) You are what you eat (molecular biology, ecology). Research in scientific literature, lab skills, student presentations and problem solving techniques will complement the course. This course moves at an accelerated pace, and students taking this course are strongly encouraged to take the SAT II Biology Exam at the end of the course. **Grades:** 11 **Pre-Reqs:** Physics and Chemistry grades of B or better or recommendation of previous science teacher

### S403 | ASTRONOMY

An introduction to Astronomy, this class will focus on the application of physics to the study of the universe. Intended for highly motivated students interested in science, this class expects students to think critically as well as to make use of mathematical reasoning in the solving and creation of problems related to astronomical phenomena. Students are expected to have a working knowledge of Algebra II concepts. This course will also teach and apply trigonometry and logarithms to astronomy problems. Topics may include: the history of observational astronomy, building a simple telescope and trips to observatories to study the night sky; celestial navigation; stellar evolution from how stars are born to supernovae; black holes; the large scale structure of the cosmos; space-based astronomy and astronomy in the news. **Grades:** 11, 12 **Pre-Reqs:** Physics and Chemistry. Recommended prerequisites: Algebra 2

### S404 | HN OPT | CONTEMPORARY APPLIC GENETICS

Why are some diseases inherited from parents who are perfectly healthy? What is the difference between infectious and genetic disease? Can you find out if you will get a genetic disease? How does one decide whether to learn about one's genetic make-up and what to do with that information? How do we develop guidelines for these advancements that are equitable for ALL? Who pays for the research and who makes a profit? Students use the same cutting edge lab techniques that scientists do in their labs to try to answer these questions about devastating diseases. Finally, students learn how the biotechnology industry is using these modern techniques by investigating how an idea is turned into a profit-making product. This course is lab oriented with an emphasis on investigative skills. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry and Biology. Biology may be taken out of sequence with the permission of the instructor.

### S405 | GSC | ECOLOGY

From our days as a hunter-gatherer society to the information age, humans have always had a close relationship with the environment. This relationship will be examined through the study of ecological principles that govern population dynamics, community interactions and ecosystem processes. Students gain an understanding of the biosphere as we examine the ways humans have altered the natural ecological processes during our species time on Earth. Human ecological issues to be covered include over-population, pollution, environmental justice, urban sprawl, habitat loss, invasive species, biodiversity loss and global climate change. Over the semester, students will find local solutions to global, ecological problems. Students will design and conduct ecological studies and experiments to engage in research and environmental education advocacy activities. Partnerships with Earthwatch, Massachusetts Audubon Society, and MIT will support student environmental research and study. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry and Biology. Biology may be taken out of sequence with the permission of the instructor.

#### S406 | GSC | EPIDEMIOLOGY

Why are some diseases “catching”? What tools do scientists use to study and control disease? How does my body fight off invaders? What kind of organisms can and do invade my body? Why do Third World countries experience more diseases than developed countries? What ethical issues arise in studying and treating disease? How has biotechnology contributed to making new treatments for these diseases? Students use current lab techniques, read current literature and participate in research projects and design their own epidemiologic study. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry and Biology. Biology may be taken out of sequence with the permission of the instructor.

#### S407 | HN OPT | HUMAN ANATOMY & PHYSIOLOGY

This course is a challenging and intensive investigation of human body systems that includes the molecular, cellular and tissue level of the organ systems. Students will engage in discussion, activities and laboratories, and write research papers to gain a better understanding of the structure and physiologic processes of the healthy body. Current trends and treatments in medicine as well as medical ethics are explored. Guest speakers are invited to make presentations. Class will consider career opportunities within the medical field. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry and Biology. Biology may be taken out of sequence with permission of the instructor.

#### S408 | GSC | MARINE BIOLOGY

Students who take Marine Biology will gain a deeper understanding into the variety and diversity of living organisms in the world's oceans through an ecological and evolutionary lens. From Algae to Zooxanthellae and everything in between, we will examine and study the diverse organisms and complex relationships that make life in the ocean possible. Understanding human impact and conservation will be an underlying theme to the course. Wet and dry labs, snorkeling, microscopy, dissections, field trips, lectures and discussions are all used to engage students into the wonderful world of life beneath the waves. As a part of this class, you will learn the skills to create and present a unique project that shows your understanding of the course content and highlights your interests and ideas. **Grades:** 11, 12 **Pre-Reqs:** Chemistry and Biology. Biology may be taken out of sequence with the permission of the instructor.

#### S409 | FORENSICS

This elective integrated science course is ideal for those interested in future studies and/or careers in law, criminal justice, and public safety. Essential questions including the following will be explored: How can someone be wrongfully convicted? What is the history of forensic science, its advancements, and how did it become integrated into the criminal justice system? What are the types of evidence utilized to analyze a crime scene and how are they gathered and processed? When is forensic evidence admissible and when is it not? **Grades:** 12 **Pre-Reqs:** Physics, Chemistry and Biology. Biology may be taken out of sequence with the permission of the instructor.

#### S410 | IN | MARINE SCIENCE INTERNSHIP (ACADEMIC INTERNSHIP)

The CRLS MSI is intended for students who are interested in gaining advanced lab and research experience in any of the fields of Marine Science. Students will be placed in a research facility, beginning during period 4 three days per week for a total time commitment of 12 hours per week. Students will also be responsible for keeping a lab journal of their experiences, participate in a student led seminar each week and present their research to a group of invested adults as the culmination of their placement experience. Previous placements have included Harvard, MIT, New England Aquarium, Boston University, Northeastern, BlueFin Robotics. **Grades:** 11, 12 **Pre-Reqs:** Marine Biology or Oceanography and permission of the instructor

#### S411 | ORGANIC CHEMISTRY

This advanced chemistry course addresses structures, reactions and uses of carbon compounds. The classes of carbon chain and ring molecules will be studied with emphasis on stereochemistry, reactivity and reaction mechanisms. The practical applications of hydrocarbons and biomolecules will be explored, and laboratory activities will be performed. Familiarity with organic chemistry is excellent preparation for all types of medical careers. **Grades:** 11, 12 **Pre-Reqs:** B or better grade in Chemistry and Biology. Biology may be taken out of sequence with permission of the instructor.

#### S412 | GSC | ACT ON CLIMATE CRLS

This course will help students understand and respond to climate change as individuals and in partnership with community organizations and policy makers. Students will gain understanding of the ecological, economic and political factors behind climate change, by evaluating the scientific evidence and non-scientific sources of information. You will explore issues of environmental justice and ethics associated with climate change. You will develop skills and strategies for civic engagement and translate learning into action on climate change: Students will design their own long-term projects in areas including food, trees, solar and wind power and transportation. The course will include field trips, presentations and community service work. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry, and Biology. Biology may be taken out of sequence with the instructor's permission.

#### S415 | IN | SCIENCE & ENGINEERING RESEARCH (ACADEMIC INTERNSHIP)

The Science and Engineering Research course provides students the opportunity to design and/or carry out a long-term experimental or engineering project. Students will have the opportunity to visit labs at Harvard, Draper, MIT, the Broad Institute, the Cambridge Water department and other sites. After visiting, students will select a lab they'd like to work in. Once students have identified a project, they will conduct experiments and/or engineering work, make presentations and produce a final research paper, poster and materials for the Science Fair. Students will be supported in their work by attending class at CRLS at least once a week. The course is offered in Block 4, allowing the student to leave school to do work in a lab. Students are expected to spend 10-20 hours weekly on their research. **Grades:** 11, 12 **Pre-Reqs:** Application, including resume, transcript and letter of recommendation-See Ms. Dorrity in room 3408 for application.

#### S416 | HN OPT | EXERCISE PHYSIOLOGY

Knowledge and application of scientific principles are prerequisites for this intensive, advanced biology course. The course covers how the body functions during exercise, the adaptations that occur in response at a tissue, cellular and molecular level. Focus will be on changes that occur in the circulatory, respiratory and muscular systems; students will conduct labs, plan experiments and write research papers. Please note that this is not a class that will involve general fitness goals or means to achieve them. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry and Biology. Biology may be taken out of sequence with the permission of the instructor.

#### S418 | GSC | OCEANOGRAPHY

Oceanography is the study of all of the physical, chemical and biological processes that make up the world's ocean. Topics will include the origins of the world's oceans, history of ocean exploration and examples of marine technology that allowed this exploration. We will study the forces that have shaped our oceans over time and the features of the sea floor resulting from these forces. Physical processes in the Ocean like tides, currents, waves, erosion of coasts and environmental concerns will make up the bulk of the course content. The capstone project in the course will be designing, building and flying an underwater remotely operated vehicle (ROV) in a competition in the school pool. As a part of this class, you will learn the skills to create and present a unique project that shows your understanding of the course content and highlights your interests and ideas. **Grades:** 11, 12 **Pre-Reqs:** Chemistry

#### S419 | GSC | ZOOLOGY

This course is a challenging elective that studies animals of all shapes and sizes, from ants to whales. Students will examine the diversity of the animal kingdom, focusing on the major groups of invertebrates and vertebrates. They will learn about the physical features and survival strategies of the various phyla, evolutionary relationships between organisms, and the ecological connections between them. Student will engage in authentic inquiry projects, discussion, lab experiences, field trips, and research as they learn about the animal kingdom. This course is essential for anyone interested in animal evolution, veterinary medicine, environmental science, ecology, wildlife biology, and global warming's effect on biodiversity. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry, and Biology. Biology may be taken out of sequence with the permission of the instructor.

#### S421 | GSC | ETHICS AND SCIENCES

We live in a fast pace, high tech, ever increasing digital age. Science has allowed us to do more than most could have imagined a generation ago. Your generation has the huge responsibility to decide what we SHOULD or SHOULD NOT do with the advancements. In this course, we will examine current, noteworthy scientific developments and ask ourselves if the developments create and social, moral, and philosophic dilemmas. Much of the course topics will be student driven, but some example questions are: *Who should have access to your DNA? Should we be allowed to edit the human germline? Would the DNA of three people be allowed to be merged to create one baby? (UK has said yes!) Who is responsible for the new antibiotic development? How do we make sure medical devices like pacemakers are secure from computer hackers? From guns to organs, how should we utilize 3D printing? Remote warfare: what are the implications? Climate change preparation: will all be able to face the threat equally?* **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry, and Biology. Biology may be taken out of sequence with the permission of the instructor.

#### S423 | GSC | BECOMING DA VINCI - THE INTEGRATION OF ARTS AND SCIENCE

In this course we will investigate how science and art are interrelated. Some topics we may cover are: the chemistry behind art dating and restoration; using engineering to ensure safety in theater; creating animations to visualize proteins and enzymes; how light can affect the way we view colors; ceramic glazes; or other topics that interest the class. We will also take some field trips to see how the integration of arts and science exist beyond the classroom. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry, and Biology. Biology may be taken out of sequence with the instructor's permission.

#### S425 | HN OPT | BRAIN & BEHAVIOR

This course is about the biology of the brain. How are signals transmitted in the brain? How do neurons create memories and how do we learn? How are nervous systems organized? How does the brain control complex animal behaviors such as migration, mating, altruism and echolocation? To answer these questions, students will read varied advanced texts, interpret models and data, participate in class discussions, complete projects and demonstrate understanding on written assessments. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry, and Biology. Biology may be taken out of sequence with the permission of the instructor.

#### S430 | ENVIRONMENTAL SCIENCE

Environmental science is offered from a wide variety of disciplines, including geology, biology, environmental studies, environmental science, chemistry and geography. This course has been designed to enable students to undertake an advanced study of environmental topics. The goal is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, identify and analyze environmental problems both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and/or preventing them. Credits **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry and Biology

#### S435 | HN OPT, GSC | FOOD, FARMING, & OUR PLANET

Humans have been farming for over 40,000 years! We rely on agriculture for everything from food to animal feed to clothing and fuel. With the looming consequences of overpopulation and global climate change, understanding agriculture is more important than ever. In this course students will learn about agriculture by studying plants, soil, water, microbes, insect pollinators and pests. We will look closely at large agro-business and sustainable organic farming; we will understand environmental degradation and the impact that agriculture has had on our ecosystems; we will learn about solutions and ways that agriculture can sustain our growing human population. Students will conduct independent research projects, write lab reports, read primary sources, and convey scientific information to their peers and the community. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry, and Biology. Biology may be taken out of sequence with the permission of the instructor.

#### S440 | HN OPT | PROJECT PHYSICS: THE WAY THINGS WORK

Project Physics is an engineering-based physics course that explores both practical and theoretical aspects of physics. The course brings together physics, technology, mathematics and engineering to build and analyze devices and machines. Students will use the Engineering Design Process to complete a series of design challenges, such as mousetrap cars that travel the fastest, catapults that launch projectiles the furthest, handmade musical instruments, and circuits you can draw with a pen. Projects may change from year to year depending on student interest and outside competitions. **Grades:** 11, 12 **Pre-Reqs:** Physics and Algebra 2

#### S501 | AP | BIOLOGY

This college level course builds on knowledge obtained in physics, chemistry and biology. The course emphasizes biological principles from an evolutionary perspective. The first semester examines the structure and function of molecules and cells, the molecular basis of heredity and evolution. The second semester examines organismal diversity and the structure and function of plants and animals, followed by a study of interactions in populations and communities. Students taking this course are highly encouraged to take the AP Biology Exam in May. **Grades:** 11, 12 **Pre-Reqs:** Grades of B- or better in Physics, Chemistry and Biology; The Biology requirement may be waived with a science teacher recommendation. Students will be expected to complete a summer assignment before course begins.

#### S502 | AP | CHEMISTRY

This course is designed to teach chemistry at the college freshman level and prepare students for the AP Chemistry Exam. Emphasis will be on inorganic chemistry, atomic structure, bonding, reactions, periodicity and equilibrium. Laboratory experiments are an integral part of the course. Students should be prepared to do university level work. Students taking this course are strongly encouraged to take the AP Chemistry Exam in May. **Grades:** 10, 11, 12 **Pre-Reqs:** Physics, Chemistry and Biology and previous or concurrent enrollment in Pre-calculus. **ACCELERATED ACCESS:** Freshmen with a 95 or better GPA, who are on track to be in Algebra 2 or higher in their sophomore year, and have a guidance recommendation will receive an invitation from the Dean of Science to take AP Chemistry as a sophomore. **NOTE:** Student in the accelerated access pathway of AP Chemistry, who drop the course beyond the first progress report deadline will receive the requisite WF or WP on their transcript.

#### S503A | AP | PHYSICS C: MECHANICS (SEMESTER 1 OF AP PHYSICS C)

This course is the equivalent of a calculus-based, introductory, college level physics course on Newtonian Mechanics. It covers the foundation topics of kinematics; Newton's laws of motion; work, energy, and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. The course focuses on building strong conceptual, theoretical development and problem solving skill for students interested in pursuing science, medicine, engineering or technology college programs and careers. The course also teaches the use and application of the prerequisite math courses: calculus, trigonometry, geometry and algebra. The course has an experimental component for the student to gain first hand experience observing the physics and using experimental equipment. The course is the equivalent of a calculus-base college introductory physics mechanics course and prepare the student to take the AP Physics C: Mechanics exam. Students typically take this course in the fall and subsequently take AP Physics C: Electricity and Magnetism in the spring. Students taking this course are strongly encouraged to take the AP Physics C: Mechanics Exam in May. **Grades:** 11, 12 **Pre-Reqs:** AP Calculus BC recommended but NOT required

#### S503B | AP | PHYSICS C: ELECTRICITY AND MAGNETISM (SEMESTER 2 OF AP PHYSICS C)

This course is the equivalent of a calculus-based, introductory, college level course on Electricity and Magnetism. It covers the major introductory areas of E&M including: electrostatics; conductors, capacitors, and dielectrics; electric circuits; Maxwell's Equations, magnetic fields; and electromagnetism. The course focuses on building strong conceptual, theoretical development and problem solving skill for students interested in pursuing science, medicine, engineering or technology college programs and careers. The course also teaches the use and application of the prerequisite math courses: calculus, trigonometry, geometry and algebra. The course has an experimental component for the student to gain first hand experience observing the physics and using experimental equipment. The course also prepares the student to take the AP Physics C: Electricity and Magnetism exam. Students taking this course are strongly encouraged to take the AP Physics C: Electricity and Magnetism Exam in May. **Grades:** 11, 12 **Pre-Reqs:** AP Calculus BC, Students often take this course in the spring following AP Physics C: Mechanics, but the Mechanics course is not a prerequisite.



### S504A | AP | PHYSICS 1

This is a one semester introductory, algebra-based college physics course covering a wide spectrum of physics topics. The course covers all major topics of mechanics: Newton's laws of motion; work, energy, and power; systems of particles and linear momentum; circular motion and rotation; gravitation; oscillations and mechanical waves. However, AP Physics 1 does not parallel AP Physics C: Mechanics, in that the scope of the course extends beyond mechanics to include an introduction to topics such as electrostatics and waves. This course has an inquiry-based experimental component, designed for the student not only to gain hands-on experience observing physical phenomena and using laboratory equipment, but to engage in scientific questioning and to design investigations and implement data collection strategies to answer a particular scientific question. This course prepares the student for the AP Physics 1 exam, the AP Physics 2 course offered in the spring semester, and for calculus-based college physics. Students taking this course are strongly encouraged to take the AP Physics 1 Exam in May. Students enrolled in Algebra 2 or a higher math course may elect to enroll in AP Physics 1 (S504A) in lieu of Honors Physics (S102). **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Previous or concurrent enrollment in Algebra 2.

### S504B | AP | PHYSICS 2

This course follows from AP Physics 1, but AP Physics 1 is not a prerequisite. AP Physics 2 investigates electricity and magnetism in more depth and detail than AP Physics 1 or Physics First and also includes an in-depth treatment of topics such as thermodynamics, fluid mechanics, atomic and nuclear physics, quantum mechanics and the limitations of classical mechanics, optics, and electromagnetic waves. If you want to take a physics course that delves into topics not normally covered in an introductory physics class, this is the course for you! The AP Physics 2 course is designed to enable you to develop the ability to reason about physical phenomena using important science process skills such as explaining causal relationships, applying and justifying the use of mathematical routines, designing experiments, analyzing data and making connections across multiple topics within the course. This course prepares the student for the AP Physics 2 exam and for calculus-based college physics. This course can be taken in the spring following AP Physics 1. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** AP Physics 1 or Physics First, Previous or concurrent enrollment in Algebra 2 (required) and Pre-Calculus (preferred).

### S510 | AP, GSC | ENVIRONMENTAL SCIENCE

This course is the equivalent of a one-semester, introductory college course. Environmental science is offered from a wide variety of disciplines, including geology, biology, environmental studies, environmental science, chemistry and geography. This course has been designed to enable students to undertake an advanced study of environmental topics in college. The goal is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, identify and analyze environmental problems both natural and human-made, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving and/or preventing them. **Grades:** 11, 12 **Pre-Reqs:** Physics, Chemistry, Biology and Algebra. Biology may be taken out of sequence with the permission of the instructor.

## Visual & Performing Arts

**Expectation:** A CRLS student represents ideas through an expressive medium.

The Department of Visual and Performing Arts offers students a comprehensive arts education in a conservatory-like atmosphere. A full array of course offerings in dance, drama, music, and the visual arts enables students to build skills and understandings. Sequenced paths lead to proficiency and new ways of perceiving and interpreting ideas. Course offerings support the development of a life-long love of the arts as well as a solid preparation for those who wish to continue studying the arts after graduation from CRLS. This is done in a supportive learning environment, and is enriched by regular encounters with professional visual and performing artists.

### A020 | PORTRAITS

The main focus of this course is for students to become comfortable with drawing and painting people by drawing what they see, and not the symbols in their heads. Students will explore drawing and painting portraits in graphite, and acrylic. Students will visit Youville Retirement Home to draw, paint and interview the residents. Portraits class is a family-like environment where students become comfortable with each other through development of their art. **Grades:** 10, 11, 12 **Pre-Reqs:** Foundations of Art or permission of the instructor.

### A021 | FOUNDATIONS OF ART

This introductory level course will consider the variety of ways that art is used for expressive purposes. This class will focus on the elements of art and the principles of design, using two- and three- dimensional media. Students will draw upon a wide range of materials and techniques to foster their creativity and enhance their problem solving skills. Assignments as well as individual and class critiques will support the development of critical thinking skills. Foundations of Art is a prerequisite for many of the upper level visual arts courses. **Grades:** 9, 10, 11, 12

### A022 | PAINTING |

Students will explore the materials and properties of acrylic painting through a series of demonstrations and classroom assignments. Composition, perspective, realism, abstraction, and non-objective painting will be addressed. Students will examine different periods and genres such as the Renaissance, Impressionism, Abstract Expressionism, still life, and portraiture. The class will participate in visits to local museums and engage in critical thinking exercises to sharpen their visual skills. **Grades:** 10, 11, 12 **Pre-Reqs:** Foundations of Art or permission of instructor.

### A024 | SCULPTURE | SCULPTURE

Students will explore the methods and concepts of 3D design through additive and subtractive sculptural projects as well as mixed media assemblages. Materials will include wire, cardboard, paper mache, sewn forms, and found objects. In addition to creating a portfolio of work, students will also look at historical examples of sculpture and investigate the work of contemporary 3D artists. **Grades:** 9, 10, 11, 12

### **A025 | PHOTOGRAPHY 1**

Introduction to Photography (Photography 1) is designed to make a seamless entry into the basics of digital and analog photography. This beginning level course emphasizes the interdependence of the latest analog and digital techniques. It encompasses digital capture, film and digital processing, and printing using digital technology and enlargers to make photographic prints. Students will learn to operate digital and film SLR cameras, and how to edit in Camera Raw and Photoshop, develop film, and produce fine art prints in both the wet and dry labs. Students will be introduced to the foundations of design concepts including line, shape, color, composition, value, and form. Students will write research papers on the contemporary and historical masters of photography as well as create an artist statement. **Grades:** 9, 10, 11, 12 **Pre-Reqs:**

### **A028 | JEWELRY MAKING 1**

This course will explore basic jewelry making and metal working processes. Assignments will introduce techniques including bead weaving, chain and maille, shaping wire, cutting metal, cold joinery, light forming, surface treatments and finishing methods. Projects will be based on skills and concepts as they relate to creating jewelry with additional opportunities to explore the creation of utilitarian objects. By the end of the course, students will become proficient in beading and working with metal, both technically and as a means of artistic expression. Projects include but are not limited to: Beaded jewelry, necklace pendants, drop earrings, cuff bracelets, rings and keychains. **Grades:** 10, 11, 12 **Pre-Reqs:** Introduction to Wearable Art or permission of instructor.

### **A029 | ANIMATION 1**

This is a beginning level course designed to teach time-based media concepts through the creation of short animated pieces. Students will learn to draw their own characters and scenes, put them in motion, and use these building blocks to tell engaging stories using Adobe Animation. The class will include periodic critiques of student work as well as viewings of professionally animated shorts and movies. **Grades:** 9, 10, 11, 12

### **A030 | HN | STUDIO ART 1**

This course is designed for students who have satisfactorily completed Foundations of Art and would like to continue to develop their technical and expressive skills. Projects addressing individual and contemporary issues will be assigned as students continue to explore a variety of tools and media including drawing, painting, printmaking and two- and three-dimensional design. Assignments will emphasize development of the artist's personal voice and the ability to express ideas visually. Students will develop intermediate skills in drawing, the use of elements of art, and principles of design. **Grades:** 10, 11, 12 **Pre-Reqs:** Foundations of Art



### **A038 | JEWELRY MAKING 2**

This course is designed for those students who want to continue their study of jewelry making. Emphasis will be placed on individual projects that integrate all the skills learned in Jewelry 1 while learning new techniques such as soldering and stone setting. Additional areas of study may include: Casting, Repouse/chasing, Mokume Gane, mechanisms, and faceted stone setting. **Grades:** 10, 11, 12 **Pre-Reqs:** Jewelry Making 1

### **A040 | PHOTOGRAPHY 2 | PHOTOGRAPHY 2**

Intermediate Photography requires that students have an introductory knowledge of both digital and analog photographic capture taught in Photography 1. Students will learn to edit their creative images in Photoshop using layers, and scan their black and white film. Students will develop an understanding of the aesthetics of photography and art criticism through class critiques and digital media. Students will assess their own and other photographers' images using contemporary photographic vocabulary and critical thinking skills. Students will formulate their own digital and analog projects with the emphasis on the importance of image making and visual literacy in the 21st century. Students will write research papers on the contemporary and historical masters of photography as well as create an artist statement. **Grades:** 10, 11, 12 **Pre-Reqs:** Photo 1

### **A045 | ANIMATION 2**

This is an advanced level course intended for students who have completed Animation 1 who want to further develop their skills with time-based media. The class will include periodic critiques of students' work as well as frequent viewings of professionally animated shorts and movies by major studios such as Pixar, Studio Ghibli, and Disney as well as smaller, independent studios and animators. **Grades:** 10, 11, 12 **Pre-Reqs:** Animation 1

### **A050 | INTRODUCTION TO WEARABLE ART**

Perfect for the designer at heart, this introductory course focuses on creating art that is meant to be worn. Using metals, fibers, textiles, paper, beads, stones, found objects and recycled materials, students will create projects that explore fashion, art, jewelry, costume and body decorations from a variety of cultures. Students will design and construct pieces of wearable art as a way to inspire and generate fuel for a deeper understanding of how the human body is both celebrated and decorated. Emphasis will be placed on development of concept, skill, and voice through material investigation, research, discussions, lectures, individual and group projects. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** This class is a prerequisite for Fashion Design 1, 2 & 3 and Jewelry Making 1 and 2.

### **A070 | FASHION DESIGN 1**

Students in this course will learn to illustrate the fashion figure, clothing and accessories using the tools and techniques practiced today in the fashion industry. The class will explore past, current and personal fashion concepts through research of fashion designers and brands. This will help them to promote their fashion designs and to understand the progress of fashion throughout history. Students will also learn fashion design skills ranging from basic textile identification, pattern making, drawing, hand and machine sewing to embellishing projects that utilize the principles of art and the elements of design. Both women's wear and men's wear will be examined. The course will be enhanced by the formal review process and students will assess their own and each other's work through journal writing and oral critiques. **Grades:** 10, 11, 12 **Pre-Reqs:** Introduction to Wearable Art or Foundations of Art

### A075 | CERAMICS 1

This is an introductory course in sculpture using clay as the medium. Students will learn to apply the elements of design as they relate to three dimensional artwork. This will include form, texture, glaze application as well as exploring ones self in their artwork. Students will be introduced to the clay building techniques of slab construction, coil construction, and pinch pots. Students will also explore the difference between functional and nonfunctional artwork as it relates to the clay medium. **Grades:** 9, 10, 11, 12

### A465 | AP | ART AND DESIGN (STUDIO ARTS FOCUS

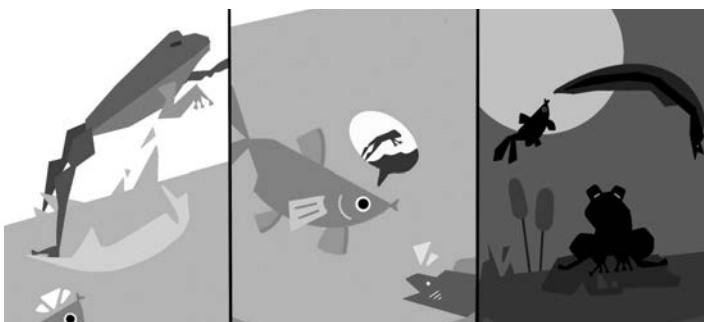
The AP Art and Design course framework presents an inquiry-based approach to learning about and making art and design. Students are expected to conduct an in-depth, sustained investigation of materials, processes, and ideas. The framework focuses on concepts and skills emphasized within college art and design foundations courses with the same intent: to help students become inquisitive, thoughtful artists and designers and be able to articulate information about their work. AP Art and Design students develop and apply skills of inquiry and investigation, practice, experimentation, revision, communication, and reflection. **Grades:** 12 **Pre-Reqs:** Foundations of Art, Studio Art 1, and Studio Art 2. (If space is available after all Studio Art 2 students have had the chance to sign up, openings will be considered based on portfolio reviews by the instructor).

### A926 | DIGITAL STUDIO 1

This beginning level course is intended to give students an introduction to making fine art on the Apple computer. Students will learn the basics of Adobe Photoshop and Illustrator, and will use digital cameras, scanners, and drawing tablets to manipulate and create their own original imagery. The class will include periodic critiques of student work. **Grades:** 9, 10, 11, 12

### A930 | HN | ART HISTORY OF THE WORLD: A NEW APPROACH

Did you know that the Louvre Museum, arguably one of the most renowned and most visited museums in the world, houses 5,500 works of art and only 21 are done by women artists? Additionally, paintings, drawings, sculptures and other pieces created by female artists make up only 3% to 5% of major permanent collections in the U.S! In AHW students will investigate women artists, artists of color, and other underrepresented artists throughout history as well as in the world's many venues including the internet, published books, galleries and museums. Students will regularly visit the Harvard Art Museums and other Boston institutions to further investigate representation in art as well as developing their own projects such as creating podcasts and zines to publish and share their ideas. Additionally they will write reflections and research papers on underrepresented artists of their choice and give presentations on their work. **Grades:** 10, 11, 12



### A960 | DIGITAL STUDIO 2

This is an advanced course for students who have completed Digital Studio 1 and would like to further develop their skills. Students will build their understanding of Photoshop and Illustrator techniques and learn how to convey more complex visual narratives. As with the previous course in the sequence, scanners, digital cameras, and drawing tablets are available for students to use as needed for their work in class. The class will include frequent critiques of students' work. **Grades:** 10, 11, 12 **Pre-Reqs:** Digital Studio 1

### A962 | HN | FASHION DESIGN 2

Students will diligently practice their drawing, designing, and garment construction skills, as well as be introduced to several modern fashion design concepts. Using deconstruct and reconstruct methods, they will embellish on existing product designs while creating their own designs. Students will keep up on current trends using technology, while also practicing traditional drapery and pattern design techniques. An in-depth study of designers will be integrated throughout the course. Digital documentation for a portfolio will be practiced. The course will culminate with the design of a clothing line that emphasizes individual style. **Grades:** 10, 11, 12 **Pre-Reqs:** Fashion Design 1

### A963 | HN | STUDIO ART 2

This course is for students who want to push their artistic development to an advanced level. It is also a prerequisite for AP Studio Art. A focus will be on developing an independent artistic voice while refining technical skills, pushing creativity, and demonstrating an understanding of the elements and principles of design. Students will explore a variety of tools and media including drawing, painting, printmaking, and two-dimensional design. Throughout the course, students will be studying the work of artists from history as well as contemporary artists, and every student will be responsible for keeping a sketchbook/idea-book, writing analytical reflections, presenting their work, and participating in critiques. **Grades:** 11, 12 **Pre-Reqs:** Foundations of Art and Studio Art 1 or permission of the instructor

### A964 | HN | PHOTOGRAPHY 3

Advanced Photography is a course emphasizing creative, technical, and aesthetic control in the digital and analog labs to achieve high quality, expressive images. This course will provide an in-depth exploration of the inter-dynamics of computer based and historical black and white creative processes. Students will use these as the tools to create meaningful bodies of work and encourage more mastery in image making. Students will go to galleries and exhibitions and interview professional photographers working in the medium in order to build the necessary foundation for Portfolio Photography. Students will write research papers on the contemporary and historical masters of photography as well as create an artist statement. **Grades:** 10, 11, 12 **Pre-Reqs:** Photo 2

### A965 | HN | CERAMICS 2

This advanced course builds on the skills and understandings developed in Beginning Ceramics. Students will refine their techniques striving for mastery of the clay medium. This course is designed for serious art students who would like to expand their knowledge of sculpture and clay. If taken for multiple semesters, students can focus on developing a portfolio that can be used to apply to either a liberal arts college or an art school. Students are encouraged to repeat this course in consecutive semesters and over multiple years to continue development of their technical and artistic skills. **Grades:** 10, 11, 12 **Pre-Reqs:** Ceramics 1

### **A966 | DIGITAL PORTFOLIO 3**

This course is for the Digital Studio student who would like to explore expert-level techniques and/or develop a portfolio using digital tools. Students will learn to express their own voices as fine artists, and will learn to convey personal and heartfelt messages through their work in their chosen digital medium. Projects become progressively more independent as the semester goes on, and the course culminates in an independent project that is entirely created by the student from concept to execution. The class will include frequent critiques of students' work.

**Grades:** 10, 11, 12 **Pre-Reqs:** Digital Studio 2, or Animation 2 with instructor permission

### **A968 | PORTFOLIO PHOTOGRAPHY**

Portfolio Photography emphasizes independent projects using advanced digital and analog processes. Students will use various creative techniques in the digital and analog darkrooms in order to produce exhibition quality prints, panoramic digital files, and archival fiber prints in the wet lab. Students will envision and create a body of work that is cohesive, compelling, and creative. Students will create original portfolios that can be used as a personal record and can be presented for admission to college and professional photography programs. Students will investigate avenues of publishing and exhibiting their work through the many venues available today including the internet, publishing books, galleries and museums. Students are required to work independently and to write their own proposals and follow through on well-conceived personal projects with rigor and commitment. Students will write research papers on contemporary and historical masters of photography and give presentations on their work as well as create an artist statement. **Grades:** 10, 11, 12 **Pre-Reqs:** Photo 3

### **A969 | AP | PHOTOGRAPHY**

This course is designed for serious photography students who intend to submit a portfolio for evaluation by the Advanced Placement Program and/or pursue admission to a program in the visual arts at the post-secondary level. The course is designed to help students develop a photography portfolio in either digital format or analog film format that reflects the quality, quantity and breadth of first year college-level standards. Students will develop a portfolio that demonstrates depth of technical knowledge, depth of conceptual knowledge and knowledge of contemporary and historically relevant photographers from the history of photography. **Pre-Reqs:** Photo 1, Photo 2 & Photo 3 or portfolio. Final selection for all students will be based on a portfolio review.

### **A972 | HN | FASHION DESIGN 3**

This class is for the serious fashion student who may pursue admission to a program in fashion at the post-secondary level. Students will continue to grow their skills, wardrobe and portfolio through the development of a line of clothing that exhibits quality, quantity, and breadth. Students will be asked to develop this body of work to demonstrate their strengths in innovation and the entire design process from initial concept, to composition and execution. **Grades:** 11, 12 **Pre-Reqs:** Fashion Design 2

### **D090 | DANCE 1**

This is an introductory dance techniques course intended for students who have little or no formal dance training. We physically explore dance forms such as modern, jazz, and ballet, as well as dances from around the world. In addition to teaching basic dance skills and etiquette, this course will help students develop self-awareness, flexibility, strength, balance, and coordination. Class activities also include viewing dance on film, writing assignments, and discussions on dance. Dance 1 is a serious and physically demanding study of dance requiring a consistent high level of participation, physical effort, and focus. This course may be taken for PE credit and alternates every other day, with health for those students who need to fulfill the health requirement, or with other alternate day courses.

**Grades:** 9, 10, 11, 12

### **D095 | DRAMA 1**

This entry level class presents an overview of drama while providing practical training in improvisation, voice, speech, characterization and stage movement. Special attention is given to creating original material and preparing the actor for performance. Performing during the class is a regular occurrence. This course is a prerequisite to all other acting courses. **Grades:** 9, 10, 11, 12

### **D863 | FILM STUDIES**

Film studies will introduce the art, technology, language and appreciation of film, exploring history and genres of cinema. Students will learn about the basic cinematic design aspect and how they evolved from silent films to the present. The class will analyze the fundamentals of film production, directing, acting and editing; how the elements of the production process are analyzed separately, then brought together to show how they create the emotional and intellectual impact of the film experience. Films will be screened both inside and outside of class. **Grades:** 11, 12

### **D864 | HN | ACTING & DIRECTING**

This course offers an intensive approach to the study of theatre arts with an emphasis on exploring directing techniques and theory as well as advanced acting to prepare students for Senior directing projects. Class projects require students to have a high level of acting proficiency and the self-discipline to work independently in small groups. Coursework includes lectures, workshops, play reading, scene work from both a director's and actor's point of view, and scene study analysis. A showcase of scenes and monologues will be presented at the end of each semester. Students are encouraged to repeat this course in consecutive semesters and over multiple years to continue development of their acting and performance skills. **Grades:** 11, 12 **Pre-Reqs:** Elements of Theater and Acting and Play Study

### **D865 | HN | ADVANCED ACTING**

This course offers an intensive approach to the study of theatre arts with an emphasis on acting styles and theory. Class projects require students to have a high level of acting proficiency and the self-discipline to work independently in small groups. Coursework includes lectures, workshops, play reading, monologue preparation, and/or scene study analysis. A showcase of scenes or monologues will be presented at the end of each semester. Students may repeat this course in consecutive semesters and over multiple years to continue development of their acting and performance skills. **Grades:** 11, 12 **Pre-Reqs:** Elements of Theater and Acting and Play Study



### D867 | GSC | LATIN DANCE

Course Description: Latin Dance is open to all students regardless of their dance experience. Basic dance technique of Latin dance forms will be taught from a sociocultural perspective. We will practice movement exercises and dance combinations to develop skill in the areas of rhythm, balance, coordination and partnering. In addition, we will explore how these Latin dances became an integral part of their respective cultures. We will also compare popular Latin dance styles to better understand, experience and celebrate the dance vocabulary and customs of Latin America. This course may be taken for PE credit and alternates every other day with health for those students who need to fulfill the health requirement. **Grades:** 9, 10, 11, 12

### D868 | HN | DANCE TECHNIQUE & CHOREOGRAPHY

HN Dance Technique and Choreography is intended for students who have successfully completed Dance 2. This class requires a thorough knowledge of dance vocabulary, technical proficiency, and the self-discipline to work independently. Emphasis is on dance composition, dance technique, quality of work (both written and practical), and artistic growth. This course will culminate in a fully produced public concert each semester. Students may repeat this course as they continue to develop their composition, technique, and performance skills. HN Dance Technique & Choreography may be taken for Wellness credit. **Grades:** 10, 11, 12 **Pre-Reqs:** Dance 1 D090 and Dance 2 D945

### D869 | HN, GSC | PLAYWRITING

In this workshop based course, students will learn various techniques and tools a playwright uses to write an original play, including source material, theme, structure, setting, character, language and revision. Students will engage in a variety of writing exercises to develop their skills in playwriting, while also reading and discussing the work of playwrights from classical to contemporary. Students will also explore basic acting techniques to enhance their writing skills and to help them interpret one another's work, however acting experience is NOT required. There will be regular class critiques and students will be expected to write a short play. Juniors and Seniors may take this course as an English elective. **Grades:** 10, 11, 12

### D870 | HN | MODERN DANCE COMPANY

Modern Dance Company is an after-school course designed for students who exhibit extraordinary commitment to dance at CRLS. Acceptance into the course as a dancer is based on an audition held at the beginning of each semester. Juniors and seniors interested in applying to choreograph are required to have taken HN Dance Technique & Choreography and must submit a written application. The focus of this course is on dance making, refining technique, and enhancing performance skills through rehearsals with student and guest choreographers, weekly dance classes and written reflection. The course culminates in a performance, "Dance/works," which takes place in December or May. [All students are required to perform and attend technical rehearsals during performance week (typically 3:00-8:00 M-Th and 5:00-10:00 Fri-Sat). ] This course may be taken for PE credit. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** No prerequisite, enrollment based on audition.

### D945 | DANCE 2

Dance 2 is a challenging dance technique course intended for students who have successfully completed Dance I or have equivalent dance training who want to further develop their movement skills. Students improve their movement skills through units in concert dance technique, dances from around the world, dance history, and choreography. Class activities also include self-reflection, group discussions on dance, viewing and responding to dance on film, and studying dance history and anatomy. This course may be taken for Wellness credit. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Dance 1 D090 or audition.

### D955 | HN | DRAMA 2

Drama 2 is for students who wish to refine and further develop their acting skills. Class projects will emphasize character analysis and interpretation based on modern plays and themes as well as improvisation and scene study. Students should be excited and motivated to work independently, with scene partners, and in large groups on all projects as we explore theatre on a deeper level. **Grades:** 10, 11, 12 **Pre-Reqs:** Drama 1 (Elements of Theater)

### D965 | MUSICAL THEATRE PERFORMANCE

This class will explore the basic elements of performing musical theatre. Topics will include acting in the musical theatre style, acting a song, song structure, genre, placement, lyrics construction, and vocal techniques as employed in various styles of music theatre. The students will explore and perform scenes from the musical theatre canon, in which the DIALOGUE of a musical is integrated with THE MUSIC focusing on the skills needed to perform in THE MUSICAL THEATRE STYLE. Duets, trios, and group scenes will be assigned and performed in class regularly. **Grades:** 10, 11, 12 **Pre-Reqs:** Elements of Theatre, music class, or permission of the instructors.

### I025 | HN | JAZZ WORKSHOP

Jazz Workshop is designed to teach the students the art of improvisation through listening and performance of quality jazz literature. Students will explore the early roots of jazz beginning with blues and progressing through bebop, cool jazz, fusion and contemporary styles. The philosophy used in learning the language of jazz will be based on the following model: imitate, assimilate and innovate. Any instrumentalist or vocalist with two or more years experience on their instrument is invited to enroll in the course. The class is geared towards beginning/intermediate jazz students. Students may repeat the course with permission from the instructor. **Grades:** 10, 11, 12 **Pre-Reqs:** Two or more years experience as an instrumentalist or vocalist.

### I030 | INTRODUCTION TO MUSIC COMPOSITION

In this music composition course, you will develop a greater sense of your own musical language. During the course, you will learn some of the music fundamentals such as major and minor keys, intervals, scales, and chords and how to use them in your own music. In addition to studying elemental music theory, you will also develop your 'inner ear' by listening to samples from a wide variety of music styles and learning how to express, shape, and develop the music ideas swirling in your head. Previous music experience and the ability to read/write music is NOT required.

### **I040 | HN | DRUM LINE/PERCUSSION ENSEMBLE**

Students learn how to play as a percussion ensemble, using traditional and non-traditional percussion instruments including snare drum, bass drum, multi-toms, mallets, cymbals, timpani and world percussion instruments. The Drumline performs at the Memorial Day Parade and Thanksgiving football game. Percussion Ensemble plays a featured piece at the winter and Spring concerts and performs as band members. This course is for drummers, percussionists and all instrumentalists who have been playing for at least one year. Students are encouraged to take this course for continuous semesters and over multiple years to continue development of their composition, technical, and performance skills. This class includes rhythmic ear training, composition, arranging and improvisation. **Grades:** 9, 10, 11 **Pre-Reqs:** By audition.

### **I050 | HN | PIANO STUDIES**

Honors Piano Studies is for students who have successfully completed Beginning Piano with teacher approval, or who have recently studied piano elsewhere for at least one year and are proficient at reading musical notation. This course is designed to help students expand their piano technique and overall musicianship while studying more advanced piano selections. Students will be expected to be able to work independently and may choose from a wide variety of music literature. Students will also improve their performance and listening skills. Opportunities will be provided for outside and in-class performances. Students are encouraged to repeat this course in consecutive semesters and over multiple years. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Students are encouraged to take it for continuous semesters; Prerequisites: Beginning Piano with teacher approval or one year of piano instruction.

### **I055 | HN | FALCON BAND**

Falcon Band is designed for 10th, 11th & 12th grade students who have played a brass, woodwind, or percussion instrument for at least one year. Students will study and play a wide range of music literature, from light classics and popular to the traditional music of both Western and non-Western cultures. In addition to performance skills, students will study music theory and ear training. Students electing this course will be expected to participate in events at which the Band performs including winter and spring concerts, Homecoming and the Memorial Day Parade. Students are encouraged to take this course for continuous semesters and over multiple years to continue development of their technical and performance skills. **Grades:** 10, 11, 12 **Pre-Reqs:** One year of instrument instruction.

### **I055A | HN | FRESHMAN FALCON BAND**

Freshman Falcon Band is designed for freshmen who have played a brass, woodwind, or percussion instrument for at least one year. Freshman Falcon Band students perform with the upperclassmen sections of Falcon Band. This is a yearlong course on an alternating Black and Silver day rotation and is an ideal way for 9th graders to continue their skill development in a relaxed atmosphere. Students will study and play a wide range of music literature, from light classics and popular to the traditional music of both Western and non-Western cultures. In addition to performance skills, students will study music theory and ear training. Students electing this course will participate at all events where the Band performs including winter and spring concerts, Homecoming and the Memorial Day Parade. Upon completion of this course, students are encouraged to take I055 Falcon Band for continuous semesters and over multiple years to continue development of their technical and performance skills. **Grades:** 9:

### **I059 | HN | STRING ORCHESTRA**

String Orchestra is open to all string players (violin, viola, cello, upright bass) who are proficient on their instrument. Students will study and perform a wide range of music literature. In addition to performance skills, students will also learn how to navigate and interpret an orchestral score and develop their critical listening. Students electing this course will be expected to participate in events at which the orchestra performs. These events may include assemblies, competitions, concerts, and civic affairs. Students are encouraged to repeat this course in consecutive semesters and over multiple years to continue the development of their performance skills and overall musicianship. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Students are encouraged to take it for continuous semesters; Prerequisite: One year of string instruction.

### **I059A | HN | STRING ORCHESTRA BEFORE/AFTER SCHOOL**

String Orchestra meets on Monday evenings from 7PM- 9PM and on Friday mornings from 7AM- 8AM. It is open to all string players (violin, viola, cello, upright bass) who are proficient on their instrument and have the independence and discipline needed to practice on their own. . Students will study and perform a wide range of music literature. In addition to performance skills, students will also learn how to navigate and interpret an orchestral score and develop their critical listening. Students electing this course will be expected to participate in events at which the orchestra performs. These events may include assemblies, competitions, concerts, and civic affairs. Students are encouraged to repeat this course in consecutive semesters and over multiple years to continue the development of their performance skills and overall musicianship. This section is for those students who love to play, but cannot fit orchestra into their schedule. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** permission of the instructor

### **I070 | CHORUS**

The CRLS chorus is open to all students in grades 9, 10, 11, 12 with or without singing experience. It is designed for students who are interested in learning the fundamental principles of ensemble choral singing. We will explore two-, three-, four-part and a cappella singing formats from a variety of historical periods and styles of choral literature, including classical, jazz, gospel, and popular music. Emphasis will be placed on proper singing techniques. Students will also develop music theory and sight-singing skills. Students electing this course will be expected to participate in events at which the CRLS choruses perform including concerts, festivals, competitions and assemblies. Students are encouraged to repeat this course in consecutive semesters and over multiple years to continue development of their vocal performance skills. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Students are encouraged to take it for continuous semesters.



### **1070A | HN | AFTER SCHOOL CHOIR**

This course is designed for students who possess above-average singing ability and exhibit commitment to their own vocal development. The After School Choral Group is a year-long course meeting three hours a week after school, with additional performance requirements in school and some evenings. Acceptance into the program is based on an audition held at the beginning of the school year. Students who pass the audition are encouraged to register for the course and receive graduation credit. Students electing this course will be expected to participate in events at which choral groups perform including concerts, festivals, competitions and assemblies. Students are encouraged to take this course over multiple years to continue development of their vocal performance skills. The course earns 4 credits each semester. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Audition in the fall

### **1072 | INTRODUCTION TO A CAPPELLA**

This course is for any student interested in learning how to perform and arrange music in the a cappella style made famous by groups like Pentatonix and the movie Pitch Perfect. The class will emphasize essential elements of participating in an a cappella group such as singing solo, bass or harmony, developing an arrangement, beat boxing, microphone technique, and staging of performances. Students will be expected to perform in a cappella jams, concerts, festivals, school assemblies, and civic functions. This course is offered in alternate semesters with the Music Theater class. **Grades:** 9, 10, 11, 12

### **1073 | HN | A CAPPELLA CHOIR BEFORE SCHOOL**

This course is designed for students who possess above-average singing ability and exhibit commitment to their own vocal development. This A Cappella choir is a year-long course meeting three hours a week before school, with additional performance requirements after school and some evenings. Acceptance into the program is based on an audition held at the beginning of the school year. Students who pass the audition are encouraged to register for the course and receive graduation credit. Students electing this course will be expected to participate in events at which the a cappella groups perform including a cappella jams, concerts, festivals, competitions and assemblies. Students are encouraged to take this course over multiple years to continue development of their vocal performance skills. The course earns 4 credits each semester. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Audition in the fall

### **1080 | BEGINNING PIANO**

Beginning Piano Studies is open for students who have never played piano or who have limited to no experience in note reading. Students will develop their playing technique, music reading and listening skills. Students will also become proficient in performance and listening etiquette. Opportunities will be provided for outside and in-class performances. Students are encouraged to repeat this course in consecutive semesters and over multiple years **Grades:** 9, 10, 11, 12

### **1085 | DRUMMING AND PERCUSSION**

This drumming course focuses on the drum-set, congas, and hand percussion. It includes rhythms like hip-hop, rock, pop, jazz, Afro-Cuban, and Brazilian. All levels are welcome: beginners, intermediate and advanced. We sample audio, video and films of different artistic styles from Miles Davis to Jay Z. Students will learn how to read music charts, and to create a groove for the drum-set and percussion instruments. It focuses in music notation, both rhythmic and melodic, scales, basic chords and ear training. This course is open to any instrumentalists, dancers and actors who would like to learn more about creative improvisation and rhythmic patterns. **Grades:** 9, 10, 11, 12

### **1090 | HN | BIG BAND JAZZ ENSEMBLE AFTER SCHOOL**

Big Band meets all year, one evening per week for three hours. This course provides an opportunity to study and perform various styles of jazz in a highly challenging setting. The course emphasizes music theory, ear training and improvisational technique. Students will be expected to participate in all events at which the Big Band performs including assemblies, competitions, concerts and civic events. Students are encouraged to take this course over multiple years to continue development of their technical and performance skills. Participation is by audition only. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** By audition.

### **1091 | HN, GSC | WORLD JAZZ ENSEMBLE AFTER SCHOOL**

This jazz ensemble will focus on the performance of a variety of musical styles from many areas of the world, such as South America, Europe, the Middle East, Africa, and Asia. Instrumentation will include piano, bass, drums, guitar, horn, strings, woodwinds, and vocals. This ensemble will include original materials written and performed by the students or the instructor. The course will also focus on how the rhythm section works in many different styles. In addition it will include recording and basic music production using professional music software. The World Jazz Ensemble will perform at school concerts and community events. This advanced ensemble is for students who have played their instruments for at least two years. Meets once per week after school. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** By audition.

### **1945 | HN | VOCAL ENSEMBLE**

Vocal Ensemble is an advanced choir for students with above-average singing ability. It is designed for students who can perform advanced-level choral literature. Auditions for Vocal Ensemble are held in the spring. Students new to CRLS may audition in September. Emphasis will be placed on the study and practice of advanced singing techniques. Students will regularly perform at civic functions, school assemblies, concerts, competitions and festivals. Students are encouraged to repeat this course in consecutive semesters and over multiple years to continue development of their vocal performance skills. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** By audition or invitation.

# Wellness

**Expectation:** A CRLS student pursues a lifestyle that fosters physical, emotional, and psychological health.

## OVERVIEW

The Health, Physical Education and Wellness Department offer courses that teach students to make healthy decisions and develop lifelong physical fitness. Our students are provided with an educational setting through which they can gain knowledge and understanding of themselves physically, socially and emotionally. Our program is based on themes of character and value that teach students lifelong lessons which they can use in the larger school community and in their personal lives.

**Freshman** students are required to take Physical Education, Health and Wellness. Students may take Dance in lieu of Physical Education and will be scheduled into Wellness components of PHW100.

**Sophomores, Juniors, and Senior** students may choose one of the following courses:

- PE Before School Lifetime Fitness (Sem. 1 Only)
- PE Before School Swim Development And Aquatic Fitness (Sem. 1 Only)
- PE Before School Lifeguard Certification (Sem. 2 Only)
- PE Before School Yoga And Stress Management (Sem.1 & Sem. 2)
- Swim Development & Aquatic Fitness
- PE Athletics
- Physical Education, Health and Wellness.

In addition, the ability to swim and engage in watersports is a lifetime skill highly regarded by Cambridge Public Schools. Water related activities could pose a serious threat to those unable to swim and those uneducated in water safety. Because of the value and importance of knowing how to swim all students must pass a Swim Test in order to graduate. The swim test includes a 100 yard swim and a 5 minute tread. Swimming lessons and testing will take place in the Wellness 1 classes. If students do not pass the Wellness 1 swim test they will be required to take Swim Development and Aquatic Fitness to meet this graduation requirement. The department prides itself on assisting students who have either religious restrictions or fear of the water. Please speak to a Wellness staff member for special accommodations.

## PHW100 | PE | PHYSICAL EDUCATION, HEALTH & WELLNESS

Health and Wellness will be addressing the holistic health needs of our students at CRLS by creating modules that focus on mental and emotional health, physical health, and healthy social relationships. The modules will allow for students to participate in regular physical activity as well as explore strategies for taking care of themselves and their communities.

## PHW100A | PE | PHYSICAL EDUCATION, HEALTH & WELLNESS

Health and Wellness will be addressing the holistic health needs of our students at CRLS by creating modules that focus on mental and emotional health, physical health, and healthy social relationships. The modules will allow for students to participate in regular physical activity as well as explore strategies for taking care of themselves and their communities. This course meets on alternating days.

## PE0020A | PE | LIFETIME FITNESS - BEFORE SCHOOL

This class will be offered before the school day (6:45-7:45). Recent research shows that cardiovascular exercise before the school day can improve a students' readiness for learning and academic success. This course will emphasize participation in a variety of aerobic activities so that students maximize gains in brain functioning. Lifetime Fitness will focus on developing personalized fitness and nutrition plans, and improving personal fitness levels through authentic lifetime fitness activities such as yoga, strength training, interval training and even training for a 5K **Grades:** 10, 11, 12

## PE0024 | PE | SWIM DEVELOPMENT & AQUATIC FITNESS

This course prepares students for lifelong fitness through a variety of activities focused on improving proficiency in basic aquatic skills and the six basic swim strokes. First semester only.

## PE0025A | PE | SWIM DEVELOPMENT & AQUATIC FITNESS (BEFORE SCHOOL)

This course prepares students for lifelong fitness through a variety of activities focused on improving proficiency in basic aquatic skills and the six basic swim strokes. First semester only. Offered before the school day (6:45-7:45am)

## PE0028 | PE | LIFEGUARD CERTIFICATION

This class is for students who are interested in employment as a professional lifeguard. Students will learn teamwork, rescue and surveillance skills, First Aid and CPR/AED and other skills you need to work as a professional lifeguard. Successful completion results in a 2-year certification in Lifeguarding that includes first aid, professional-level CPR and AED in one certificate. Second semester only. **Grades:** 10, 11, 12 **Pre-Reqs:** American Red Cross Swim Proficiency Test.

## PE0028A | PE | LIFEGUARD CERTIFICATION - BEFORE SCHOOL

This class will be offered before the school day beginning at 6:45 am and ending at 7:45 am and is for students who are interested in employment as a professional lifeguard. Students will learn teamwork, rescue and surveillance skills, First Aid and CPR/AED and other skills you need to work as a professional lifeguard. Successful completion results in a 2-year certification in Lifeguarding that includes first aid, professional-level CPR and AED in one certificate. Second semester only. **Grades:** 10, 11, 12 **Pre-Reqs:** American Red Cross Swim Proficiency Test.

### PE0029 | PE | ATHLETICS

This option is for sophomores, juniors and seniors who want to substitute a CRLS interscholastic sport for their Physical Education requirement (Non- CRLS Sports/Activities will be not be accepted). In order to receive credit, students must complete all required team functions for the sport season and submit a sport-specific activity log. Credit will be awarded on the current year's sport participation. **Grades:** 10, 11, 12 **Pre-Reqs:** One Sport Season

### PE0035 | YOGA AND STRESS MANAGEMENT

This class supports students in developing self-awareness, emotional resilience, healthy body image and compassion through yoga, breathing practices, stress management, mindfulness and community building. **Grades:** 10, 11, 12

### PE0035A | YOGA AND STRESS MANAGEMENT BEFORE SCHOOL

This class supports students in developing self-awareness, emotional resilience, healthy body image and compassion through yoga, breathing practices, stress management, mindfulness and community building.

### PE0044A | PE | SWIM DEVELOPMENT ELECTIVE BEFORE SCHOOL

This before-school, semester long aquatics elective offers the teaching of several levels of swim practice. The levels include learning the basics, improving skills and swim strokes as well as skills to swim for fitness. Training during this course can prepare students who are interested in taking the Lifeguard Course. There are no pre-requisites for this course. This course will fulfill a semester hours for PE credit. Students will be assessed with the CRLS swim requirement. **Grades:** 9, 10, 11, 12

### PE0052A | PE | WATER SAFETY INSTRUCTOR - BEFORE SCHOOL

This course prepares students for lifelong fitness through a variety of activities focused on improving proficiency in basic aquatic skills and the six basic swim strokes. First semester only. Offered before the school day (6:45-7:45am) **Grades:** 10, 11, 12



# World Languages

**Expectation:** CRLS World Language students learn to communicate in their respective target languages and improve their linguistic skills in general.

One of the most important academic studies in the roster of CRLS courses is a foreign language. The study of another language gives an inside view of another culture, way of thinking, set of values, and lifestyle. Language study is the most natural vehicle for acquiring a multicultural outlook, and it enhances English vocabulary and knowledge of language structure and usage. Second language study is indispensable for the college-bound and an invaluable embellishment to the educational background of the non-college bound. There is a minimum language requirement at CRLS of two courses in the same language. Some colleges and universities require more courses for acceptance. Students select the language that best satisfies their needs and interests. Every language offered at CRLS has its own unique contribution to make to a student's knowledge and development.

### American Sign Language

American Sign Language is used by members of Deaf communities as well as their hearing family and friends in the United States and Canada. According to the *Modern Language Association* (2015), ASL is now the third most commonly taught language in United States colleges and universities after Spanish and French. Benefits of learning ASL, for both deaf and hearing people include interacting with deaf people in the community or one's workplace and gaining knowledge of Deaf Culture. ASL curriculum focuses on the basic skills of language: receptive & expressive. It is a visual/gestural language. There is no spoken language used in the classroom. Three different levels of ASL classes are offered at CRLS.

### Arabic

The Arabic Language Program at CRLS has grown steadily in both student enrollment and offerings in recent years. The cultural diversity and academic depth of the school have provided a nurturing environment for this language which, in turn, is further enriching the school and the community. The program strives to build within its students a strong foundation for understanding Modern Standard Arabic (MSA) along with a broad and deep appreciation of the diverse cultures of the Arab World and surrounding countries. Arab culture, history, music, current affairs, and many other aspects of daily life are always being explored, across all levels, through readings, special projects, and regular presentational segments researched, organized, and delivered by the students. Besides MSA, students are exposed to some colloquial varieties of the language especially the Levantine and Egyptian dialects. Students who choose to continue studying Arabic at the college level have a solid foundation on which to keep building towards proficiency, as well as the flexibility to tailor their studies to the specifics serving their academic and professional interests.

### Chinese

Chinese is the world's most widely spoken language. The CRLS Chinese program is offered at five levels: Chinese1 through AP. The courses are designed to develop and improve the students' language skills in listening, speaking, reading and writing. Students enrolled in the program will be able to learn the language systematically by using the contemporary textbooks, modern technologies and a variety of supporting materials. The courses emphasize communication by applying interpersonal, interpretive, and presentational skills in real-life situations. Students have a maximum exposure to Chinese cultural elements that are integrated in the process of learning the language.

### French

The CRLS French program is offered at six levels, French 1 through AP French Language. In all levels the curriculum is based on the idea of proficiency, a student's ability to communicate and understand the

language functionally. The program integrates all aspects of foreign language study through a process-oriented approach in compliance with ACTFL's Oral Proficiency and the 5Cs of the National Standards for Foreign Language Learning for the 21st Century. Cultural competency is also reinforced by exposure to French and Francophone worlds through various oral/aural exercises, written assignments, film clips and various media resources. Students also gain a historical perspective on French and Francophone cultures.

#### Latin

Do you like to be challenged? Do you want to meet the greatest minds of the ancient and medieval world in their own language? We'll start by translating adapted Latin passages and, over the first three semesters of Latin, build up the skills needed to translate authentic Latin texts. At every step along the journey, we will decode the thoughts and debate the meanings of the passages that we read.

Do you know that studying Latin enhances memorization skills? Studying Latin also improves your understanding of English grammar. Do you love words? Do you want to improve your English vocabulary? Study Latin to learn the origin of approximately 60% of our English vocabulary. The Latin language and literature and ancient Roman culture have greatly influenced our own modern lives. If you are interested in mythology, gladiators, Roman art and architecture, cities buried by volcanic eruptions, politics, Roman emperors and struggles for power, and any other aspect of daily life in Ancient Rome and how each influenced later European and American culture, take Latin to find out more.

#### Spanish

The overarching goal of Spanish at CRLS is to help students broaden their perspectives and gain an appreciation for the diverse culture of native speaking populations in order to become responsible global citizens. In the classroom and through cultural travel experiences, students will become proficient listeners, speakers, readers and writers of Spanish. The Spanish Program is offered at six levels: Spanish 1 through Advanced Placement with two courses being offered specifically for Heritage Spanish Speakers. Our program follows the American Council on the Teaching of Foreign Languages (ACTFL) proficiency scale which has four main levels (Novice, Intermediate, Advanced and Superior). The first three levels are each subdivided into three sublevels (Low, Mid, and High).

#### Lo01 | HN OPT | ARABIC 1

Arabic 1 (Honors Option) Arabic 1 introduces beginners to Modern Standard Arabic (MSA) and exposes them to colloquial varieties of the Arabic Language, especially the Levantine dialect. This course emphasizes the four basic language skills of listening, speaking, reading and writing, with a special focus on phonology and writing. As with all Arabic courses at CRLS, culture is an integral part of this course. As students learn the Arabic alphabet, they will begin not only to decipher the Arabic letters and symbols, but to put this knowledge into actual practice and use as they begin to write and read simple text in Arabic. The class relies on interactive tasks designed to help students build a vocabulary and develop communicative skills. No prior knowledge of Arabic is required but a commitment to preparation, attendance, and participation is essential. Exceptional performance in this course may result in the granting of Honors credit upon the recommendation of the teacher. Proficiency Level: Novice Low. **Grades:** 9, 10, 11, 12

#### Lo11 | HN OPT | FRENCH 1

This course is an introduction to French, as well as Francophone cultures, through speaking, listening, reading, and writing in French, with French as the exclusive means of communication. Emphasis is placed on developing student ability to create and to communicate with basic French structures and vocabulary. Linguistic and cultural competencies are developed through oral exercises, individual and collaborative reports, class discussions, and the use of various media resources. Reading and writing are developed through both in-class and independent projects, as well as through compositions and other written assignments. In highly structured and contextualized situations, students will learn to ask and answer simple questions as they learn to communicate about themselves, their families, and their friends. Students will respond to oral and written prompts about their daily lives and responsibilities. Students will be exposed to authentic material and various media sources in the target language. French will be used as much as possible during classroom instruction. Proficiency Prerequisite: None. Proficiency expectation at the end of Course: Novice Mid/Novice High **Grades:** 9, 10, 11, 12

#### Lo21 | HN OPT | SPANISH 1

In Spanish 1, students will develop their Spanish skills through the study of culture, vocabulary, and grammar. By discovering and reading about the experience of typical Spanish speaking people, students will become familiar with language as a tool for communication. Students will work toward gaining proficiency in all areas of communication -- reading, writing, speaking and listening all while learning new vocabulary and grammar structures. An honors option is available for students who excel and are interested in engaging with the curriculum on a deeper level through more in-depth options for projects and various additional classroom assignments. This class is not intended for native speakers of the language; please refer to classes for Native Speakers. Proficiency Prerequisite: None. Proficiency expectation at the end of Course: Novice Mid/Novice High **Grades:** 9, 10, 11, 12

#### Lo42 | HN | LATIN 1

You will establish the foundations and acquire the tools to read carefully adapted excerpts in Latin written by some of the greatest ancient Roman and medieval authors. You will study Latin vocabulary and examine the English words that derived from the roots of these vocabulary words, thus expanding your vocabulary in both Latin and English. As you develop an understanding of the fundamentals of Latin grammar, your will reinforce and strengthen your mastery of English grammar. Finally, to give your language study a context, you will also delve into the culture, art, history and geography of the Latin speakers and the modern cultural innovations they inspired. Proficiency Level: Novice **Grades:** 9, 10, 11, 12

#### Lo91 | HN OPT | CHINESE 1

Chinese I introduce students to the Chinese language, Pinyin, and the culture of China. Using the skills of listening, reading, speaking, and writing, students will be exposed to vocabulary and basic grammar that will enable them to communicate in Mandarin in everyday situations. This level emphasizes the pronunciation and relevant vocabulary in the context of simple conversations, basic grammar structures, and level-appropriate readings. In addition, students will begin to develop an appreciation of Chinese culture that will better prepare them to interact in a global society. Proficiency Level: Novice. **Grades:** 9, 10, 11, 12

**L101 | HN OPT | ARABIC 2**

Arabic 2 further develops all language-related skills, including listening, speaking, reading, writing, and cultural knowledge. As with all Arabic courses at CRLS, culture is an integral part of this course (see the program introduction above). The course incorporates the use of authentic materials for practice and presents narrative-based content through audio, video, and online media to develop meaning-focused language processing skills. Arabic 2 expands the interactive, communicative tasks between the teacher and the students as well as among the students directly. The course also develops reading skills through the use of texts derived from the main narrative and other sources. It reinforces grammar and vocabulary through classroom and homework exercises and provides a constant review to help students retain and develop their skills. Exceptional performance in this course may result in the granting of Honors credit upon the recommendation of the teacher. Proficiency Level: Novice Low -- Novice Mid **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Arabic 1 or Teacher Recommendation

**L111 | HN OPT | FRENCH 2**

French II will continue to develop the students' proficiency in the four language skills of listening, speaking, reading and writing. It also aims to increase the students' knowledge and appreciation of the culture and customs of the French-speaking world. The core concepts of French I will be revisited throughout the course. The introduction of expressing past actions will be a major focus of this level. Students will also continue to build their vocabulary through targeted units. Proficiency Prerequisite: Novice Mid. Proficiency expectation at the end of Course: Novice High. **Pre-Reqs:** French I or recommendation of eighth grade teacher

**L122 | HN OPT | SPANISH 2**

This course covers the same grammatical structures and vocabulary found in Spanish 2 classes. Students, however, will read more short stories from elementary readers and show their knowledge of Spanish grammar and vocabulary through mandatory projects, dialogue writing, oral presentations, and additional readings on cultural topics of interest. Spanish is used as much as possible after thorough grammatical explanations in English. Grammatical structures include a comparison of imperfect and preterit tenses and the formation and use of the future and conditional tenses. Students will also use technology, video segments, and podcasts to enhance their study at this level. This class is not intended for native speakers of the language; please refer to classes for Heritage Spanish Speakers. Proficiency Prerequisite: Novice High. Proficiency expectation at the end of Intermediate Low. **Pre-Reqs:** Spanish 1 or Teacher Recommendation

**L142 | HN | LATIN 2**

Continue to read adapted passages in Latin of increasing difficulty; finish the semester reading unadapted texts. Solidify your understanding and mastery of the more complex concepts in both Latin and English grammar and further expand your English vocabulary through the study of Latin roots. Connect the grammatical points to those found in modern writing and investigate Roman contributions to our society, especially in government and culture. Proficiency Level: Novice/Intermediate **Grades:** 9, 10, 11, 12 **Pre-Reqs:** HN Latin 1 or Teacher Recommendation

**L191 | HN OPT | CHINESE 2**

In Chinese 2, students continue to develop their skills in the Chinese speaking, Pinyin, and the culture of China. This course emphasizes the pronunciation and relevant vocabulary in the context of more complex conversations, grammar structures, level-appropriate readings, and character writing. Students will continue to develop an appreciation of Chinese culture and customs. Proficiency Level: Novice/Intermediate. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Chinese I

**L202 | HN | ARABIC 3**

Continuing to develop the basic language skills, HN Arabic 3 relates abstract grammatical concepts to practical skills. This course reviews and presents new concepts using spiraling techniques and inference and encourages students to explore and play with the language as they discover its complex structure by means of analogy, problem solving, educated guessing, and sheer practice. As in other courses, vocabulary, MSA grammar, and communication are reinforced through classroom exercises that are mostly paired or done in small groups with the goal of keeping students challenged as they further develop their skills. As with all Arabic courses at CRLS, culture is an integral part of this course. Proficiency Level: Novice Mid. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Arabic 2 or Teacher Recommendation

**L211 | HN OPT | FRENCH 3**

In French 3, students transition from the beginning level of study to an intermediate linguistic experience. They will further deepen their knowledge of French grammar and culture, as well as refine listening, reading, writing, and speaking skills to prepare students to function creatively and productively in a French speaking environment. Students will be introduced to short selections of French literature and identify key elements and ideas to explore themes like the family, community, customs and values, as well as global and environmental challenges. Students will gain insight into the diverse cultures of Francophone nations through authentic reading materials and media. They will work particularly on spoken and written production in various time frames and will use a variety of authentic language materials to build their vocabulary and communicative abilities. Proficiency expectation at the end of Course: Intermediate Low **Grades:** 9, 10, 11, 12 **Pre-Reqs:** French 2

**L221 | SPANISH 3**

Students must have a foundation in the formation of the present, imperfect and preterite tenses and a motivation to communicate in Spanish. Spanish 3 is a proficiency-based course where communication in the target language is essential. Students learn about the history and geography of Spanish-speaking countries with culture becoming the focal point of instruction. This is accomplished through authentic readings, research, film, music and class discussions. Students are expected to present to the class on a variety of topics in the target language. The grammar focus in this course is perfecting the uses of the imperfect and preterite tenses and learning to form the future and conditional tenses. This class is not intended for native speakers of the language. Proficiency Prerequisite: Novice High Proficiency expectation at the end of Course: Intermediate Low **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Spanish 2 or Teacher Recommendation

**L222 | HN | SPANISH 3**

Students must have a strong foundation in the formation of the present, imperfect and preterite tenses and a motivation to communicate in Spanish. Spanish 3 HN is a proficiency-based course where communication in the target language is essential. Students learn about the history and geography of Spanish-speaking countries with culture becoming the focal point of instruction. This is accomplished through authentic readings, research, film, music and class discussions. Students are expected to present to the class on a variety of topics in the target language without using speaker notes. The grammar focus in this course is perfecting the uses of the imperfect and preterite and learning to form and use the present and imperfect subjunctive moods. This class is not intended for native speakers of the language. Proficiency Prerequisite: Intermediate Low Proficiency expectation at the end of Course: Intermediate Mid **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Grade of B or better in Spanish 2, HN Spanish 2, or Teacher Recommendation

**L242 | HN | LATIN 3**

Read unadapted and historically-based Latin passages. Review and reinforce grammar concepts and complete your study of Latin grammar in this semester. Uncover the profound and deeply human thoughts expressed by Roman and medieval authors in poetry and prose. Engage in deeper consideration of Classical civilization and the Western Classical tradition and continue your study of Roman religious and philosophical beliefs, political systems, literature, art, and architecture and how they each influenced later European and American cultures. Proficiency Level: Intermediate. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** HN Latin 1 and 2 or Teacher Recommendation

**L291 | HN OPT | CHINESE 3**

Chinese 3 is a proficiency-based course which refines and expands linguistic skills in culturally authentic contexts. The course focuses on developing communicating skills with an increasing emphasis on reading and writing in ideographic characters and expanding vocabulary. Proficiency Level: Intermediate. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Chinese 2

**L302 | HN | ARABIC 4**

This Honors course continues to develop the basic language skills through refined grammatical concepts, practical skills, and a more personalized approach. Activation of new vocabulary is more prominent in this course along with advanced reading, writing, and conversational practices. The acquisition of many grammatical concepts is achieved in this course while others are further developed by means of analogy, reasoning, and educated guessing. Grammar, vocabulary, and formal communication are reinforced through extensive classroom exercises and homework. Creativity with the language is encouraged through active class participation and more independent work. As with all Arabic courses at CRLS, culture is an integral part of this course. Proficiency Level: Novice Mid - Novice High. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Arabic 3 or Teacher Recommendation

**L342 | HN | LATIN 4**

In this advanced course, read the Caesar portion of the AP Latin syllabus. Develop your ability to translate from Caesar's *De Bello Gallico* into English as literally as possible and learn about the context of the written passages (including the political, historical, literary and cultural background of the text). Learn the reasons behind Caesar's style of writing and analyze Latin passages to understand how and why Caesar uses the language in a particular way and the effects he is hoping to produce. Finally, translate sight passages from a variety of Classical authors to further prepare you for the AP Latin exam. Proficiency Level: Intermediate/Advanced. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** HN Latin 3 or Teacher Recommendation

**L391 | HN | CHINESE 4**

Chinese 4 is a continuing proficiency-based course which further refines and expands linguistic skills in culturally authentic contexts. There will be extensive practice in listening and speaking with more emphasis on developing reading and writing skills. The course will also expose the students to the different regions of China, which will reinforce the understanding of Chinese culture as well as language. Proficiency Level: Intermediate/Advanced. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Chinese 3

**L392 | HN | CHINESE 5**

This course continues the sequence of Chinese IV. In this course, student's four language skills (listening, speaking, reading and writing) will be further improved. Oral performances such as interpersonal dialogues, presentations, skits, role-plays will continue to be a regular part of the curriculum. Listening competency will be improved through listening to the audios, podcasts, watching videos. Student's reading competency will be improved through comprehending dialogues in the textbook and supplemental reading materials on Chinese fables, myths, poems and classic Chinese novels. Writing practice includes writing stories, writing presentation scripts etc. This course is taught in Chinese only. The goal of this course is to prepare students for AP Chinese. The target ACTFL proficiency level is Intermediate mid to Intermediate high. Students will be assessed on their Chinese proficiency to be placed in this course.

**L412 | HN | FRENCH 4**

In French 4HN, students will continue building their knowledge of French grammar and culture, as well as refine listening, reading, writing, and speaking skills through the use of more complex materials and structures. Students will begin to learn to analyze works of French literature and identify key elements and ideas to explore AP themes like fables and legends, science and technology, beauty and aesthetics through looking at art, and global and environmental challenges. These topics will be framed through a historical lens. Students will work on learning advanced and nuanced grammatical structures while focusing on the core idea of being able to effectively communicate through spoken and written communication. This class is entirely conducted in French. Proficiency Prerequisite: Intermediate Low/Mid Proficiency expectation at the end of Course: Intermediate Mid/High **Grades:** 9, 10, 11, 12 **Pre-Reqs:** French 3 Honors or Teacher Recommendation



#### L422 | HN | SPANISH 4

Honors Spanish 4 is designed for students who want to become functional and more proficient in the language. They will refine their skills in all areas of listening, speaking, reading, and writing. Students will engage in class discussions, learn about the process of writing in anticipation of the AP class, read selections from literature and the printed media, and will review grammar principles that will enable them to articulate their ideas (speaking and writing) in a way that is convincing and clear. Emphasis of this course is on conversation and composition with a focus on the needs of students who want to expand not only their skills in Spanish, but in writing and speaking across all disciplines. Spanish is the operational language for this course, but English may be used to explain complex, grammatical structures and to ensure clarity in course expectations. Proficiency Prerequisite: Intermediate Low/Mid Proficiency expectation at the end of Course: Intermediate Mid/High **Grades:** 9, 10, 11, 12 **Pre-Reqs:** HN Spanish 3, Grade of B or better in Spanish 3, or Teacher Recommendation

#### L423 | HN | SPANISH 5

Spanish 5HN will continue to develop students' knowledge of grammar and language proficiency using the American Council of Teaching Foreign Languages (ACTFL) proficiency skills in interpretive reading and listening in addition to interpersonal and presentational speaking and informal and presentational writing. These skills are taught within the Advanced Placement (AP) themes, including literary and authentic readings and current events, art, movies and short films and music which are used as elements for an in-depth study of the many cultures of Spanish-speaking countries around the world. It provides students with many opportunities to apply Spanish to comprehend and communicate in writing and speech. This course permits students to develop and use 21st century technology skills, including digital citizenship and the Internet. It is strongly recommended that students complete this course before taking AP Spanish, as it is meant to aid in preparing students for the revised (2014) AP Spanish Language and Culture course and is a prerequisite. This course is taught entirely in Spanish. Proficiency Prerequisite: Intermediate Mid/High Proficiency expectation at the end of Course: Intermediate High/Advanced Low **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Spanish 4HN or Teacher Recommendation

#### L425 | AP, GSC | SPANISH LITERATURE AND CULTURE

The course uses a thematic approach to introduce students to representative texts (short stories, novels, poetry, and essays) from Peninsular Spanish, Latin American, and United States Hispanic literature. Students develop proficiencies across the full range of communication modes (interpersonal, presentational, and interpretive), thereby honing their critical reading and analytical writing skills. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the required readings. The course also includes a strong focus on cultural connections and comparisons, including exploration of various media (e.g., art, film, articles, literary criticism). Proficiency Prerequisite: Intermediate High Proficiency expectation at the end of Course: Advanced Low **Grades:** 10, 11, 12 **Pre-Reqs:** AP Language or Teacher recommendation

#### L442 | AP | LATIN

AP Latin is designed to provide advanced Latin students with a rich and rigorous semester-long Latin course, approximately equivalent to an upper/intermediate (typically fourth or fifth semester) college or university Latin course. The course prepares students for the AP Latin exam given in May. Even more important than the exam preparation is the sheer exhilaration of reading substantial portions of Vergil's Aeneid, one of the most awe-inspiring pieces of epic poetry ever written, in the original language. The AP Latin syllabus juxtaposes the lyric poetry of Vergil with the pure straightforward prose and historical interest of Caesar's Gallic Wars. The readings from the two diverse texts present students with an in-depth study of Roman concepts of war, peace, empire and leadership. The Latin works and the English translations, when appropriate, are studied with attention to precise and literal translation, analysis of the works as literature, and proficiency in writing critical essays on the works. Emphasis will also be placed on reading Latin passages at sight. Proficiency Level: Advanced. **Grades:** 10, 11, 12 **Pre-Reqs:** HN Latin 4 or Teacher Recommendation

#### L491 | AP | CHINESE

This course is designed for students to further develop their language proficiency as well as to promote their awareness and appreciation of cultural products (e.g. tools, books, music, laws, conventions, institutions), practices and perspectives by engaging them in an exploration of the culture in both contemporary and historical contexts. The course will be conducted in Chinese. Students will concentrate on learning updated Chinese language texts, journal articles, short stories, audio and video materials, and classical poetry and prose. This course also prepares students for the Advanced Placement examination given in May by the College Board. Proficiency Level: Advanced. **Grades:** 10, 11, 12 **Pre-Reqs:** HN Chinese 4

#### L512 | HN | FRENCH 5

French 5HN serves as a segue course to the AP French Language and Culture. Students will develop advanced proficiency in the language skills of listening, speaking, writing, and reading. The course will engage students to explore the historical contexts of the Francophone World through authentic resources such as newspaper and magazine articles, websites, films, music, video clips, blogs, podcasts, stories, and literary excerpts. This class is entirely conducted in French. Proficiency Prerequisite: Intermediate Mid/High Proficiency expectation at the end of Course: Intermediate High/Advanced Low **Grades:** 9, 10, 11, 12 **Pre-Reqs:** HN French 4 or Teacher Recommendation

#### L521 | AP GSC | SPANISH LANGUAGE AND CULTURE

The AP Spanish Language course prepares students to take the AP Spanish Language test in May. It is equivalent to an intermediate university level Spanish language course and is intended for students who have a strong desire to immerse themselves in Spanish language and culture. Students will review grammar as needed and will read, speak, and write about what they encounter in both the written and spoken genres. Students will read excerpts from major literary figures and learn to recognize the cultural and linguistic nuances of the diverse Spanish-speaking world. It is expected that after completion of the course, the students will sit for the AP examination in May. Course conducted entirely in Spanish. Proficiency Prerequisite: Intermediate High Proficiency expectation at the end of Course: Advanced Low **Grades:** 10, 11, 12 **Pre-Reqs:** HN Spanish 5 or Teacher Recommendation

### L525 | HN | HISTORY & CULTURE THROUGH SPANISH AND LATIN AMERICAN FILM

The aim of this course is to expand the students' language skills focusing on a review of Spanish syntax, through the analysis of Caribbean, Latin American and Spanish film productions. This course will provide an introduction to the cinema of Spain, the Caribbean and Spanish America. Films from Mexico, Cuba, Argentina, Spain, Puerto Rico and other countries will be included in the course. Additionally, this course will support the advancement of students' linguistic and cultural competence through community engagement and the arts. While students are exposed to films and become familiarized with specific colloquialism and cultural aspects of each country, they will study, among other topics: the idiosyncrasies of film language in Hispanic cultures, the relationships between text and image, music, representation of history, social movements, culture and society. Students will engage in weekly readings, research, and lively discussions on reality as seen through film and participate in a film festival and other community events. Students must have advanced Spanish proficiency or passed the equivalent of HN Spanish V. Students are encouraged to take AP Language and AP Literature first as prerequisites but it is not mandatory. **Grades: Pre-Req:** Spanish 4HN, 5HN, or Spanish AP

### L527 | HN | FLAMENCO JOURNEY

This course is a journey into the fascinatingly complex world of flamenco, one of the most elevated art forms of Andalucía, Spain. In 2010, UNESCO declared flamenco one of the Masterpieces of the Oral and Intangible Heritage of Humanity. The focus of the course is to explore flamenco's three pillars--cante, toque y baile, or song, guitar, and dance--through an in-depth analysis of this predominantly oral literature and culture. Students will analyze its various "palos" (song styles), the metric of its lyrics, the rhythm associated with each basic style, and be introduced to its most representative historical and current figures. We will focus on the Romani people's crucial role in flamenco's development, while looking at flamenco's connections to modern dimensions of ethnicity, race, and gender in popular culture. Students will be able to recognize and learn some of the basic compás (rhythms) as they show up in song, guitar, and dance. By the end of this course, students will have the necessary knowledge to become respectful aficionados and aficionadas of this unique and sometimes controversial art. While students will work with some multimedia resources (audio, video) and be exposed to musical instruments (guitar, cajón), the main focus will be literary, aimed at improving their oral and written Spanish. This course will be entirely taught in Spanish. Students will analyze authentic materials using the three communication modes: interpretative, interpersonal, and presentational. The language level is mid to high-advanced. Students who are in Spanish level 5 or AP will find this course a great cultural addition to their linguistic trajectory. **Proficiency Prerequisite:** Advanced-Low Proficiency expectation at the end of course: Advanced-High/Superior (GSC)



### L591 | HN, AP | CHINESE POST

This course is designed for students who passed the AP Chinese course and intend to continue Chinese language learning. The goal of this course is to prepare each student to be a world ready student who can communicate efficiently in Chinese and also demonstrate cultural competencies. Students will use Chinese to interact in various simulated real life tasks. This course will use Integrated Performance Assessments (IPA) as learning objectives to plan and evaluate each learning task. In this course, students will also read a wide variety of Chinese literature such as Chinese fables, myths, poems and excerpts of classical Chinese novels to further enhance their Chinese literacy. This course will finally provide students with the opportunity to bring Chinese language and culture to the local community. Students will participate in events like teaching a mini Chinese lesson at local schools, helping organize Chinese New year celebrations. This course is taught in Chinese only. The target proficiency level is pre-Advanced Level.

\*Integrated Performance Assessment is a classroom-based performance assessment model developed by ACTFL that can be used for evaluating student's communication skills in the three modes of communication (Interpretive, Presentational, Interpersonal)

### L612 | HN | FRENCH BEYOND FRANCE - FRANCOPHONE WORLD

This course is an integrative approach to language learning that is collaborative and student-centered. In this advanced-low course we will focus on the French-speaking world outside of France while developing a greater ease in all ACTFL modes of communications: interpretive reading and listening, interpersonal speaking, and presentational writing. The course aims to develop students' knowledge of the francophone world through a focus on cultural topics such as music, dance, and cuisine. The diversity of francophone cultures and voices is explored through a variety of cultural material including newspapers, magazine articles, films, and the work of various francophone artists. This class is conducted entirely in French. A placement assessment to be taken prior to joining the course. **Proficiency Prerequisite:** FR5/AP Proficiency expectation at the end of Course: Advanced/Mid (GSC)

### L612 | AP | FRENCH

In AP French Language and Culture, students will learn about contemporary Francophone societies and cultures by examining their products, practices and perspectives through 6 main themes: Personal and Public Identities, Global Challenges, Science and Technology, Families and Communities, Beauty and Aesthetics, and Contemporary Life. Students will use authentic resources such as newspaper and magazine articles, websites, films, music, video clips, blogs, podcasts, stories, and literary excerpts in French to develop language skills and communicative proficiency in real life settings. Students will build communication skills through class discussion, peer-collaborative presentations, email responses, essay and journal writing. This class is entirely conducted in French. **Proficiency Prerequisite:** Intermediate High Proficiency expectation at the end of Course: Advanced Low **Grades:** 10, 11, 12 **Pre-Reqs:** HN French 5 or Teacher Recommendation

### L621 | HN OPT, GSC | SPANISH LANGUAGE ARTS I: AN INTRODUCTION TO THE HISPANIC WORLD IN THE UNITED STATE

The course is designed to strengthen and expand all the resources the students already have in Spanish and to develop their critical awareness of the relationship between language, identity and social relations among Spanish speakers and speakers of other languages. Students will acquire the necessary skills to critically analyze the richness and complexity of the Hispanic experience in the US while promoting community engagement as a vehicle for greater linguistic fluency and cultural understanding. The course is articulated around topics of interest and importance for the youth of the Latinx community: the history of the language, the family, the use of Spanish in the United States and the famous “Spanglish”, our Latin identities and cultures, the representation of Latinxs in the media, among others. The goal of this course is to strengthen the students reading and writing skills in Spanish. Students will work with the content and with the critical analysis of different types of texts (genres) and multimedia resources (films, visual arts, music, literature, poetry, academic and journalistic articles). The literature, art, music and exercises are selected and designed to develop multicultural, strategic and fluid readers and writers.\*This course is designed for students comfortable with conversational Spanish, with an Advanced Low proficiency level, or for Native Spanish Speakers. Students will develop and strengthen their academic skills so that they can advance to higher level Spanish courses. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Native Spanish speakers or Amigos students

### L622 | HN OPT, GSC | SPANISH LANGUAGE ARTS II: AN INTRODUCTION TO THE HISPANIC WORLD IN THE UNITED STATES

This semester world language course is designed for bilingual students who want to develop their abilities in the areas of reading, writing and listening comprehension. Students will acquire the necessary skills to analyze the history, the culture as well as current events in Latin America in order to interpret and make connections to deepen their understanding of self within the Spanish-Speaking world. The study of literature, art, music, and film will facilitate students’ engagement and understanding of Latin America and Spain.\*This course is designed for students comfortable with conversational Spanish, with an Advanced Low proficiency level, or for Native Spanish Speakers. Students will develop and strengthen their academic skills so that they can advance to higher level Spanish courses. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Spanish Language Arts I or Teacher Recommendation



### L625 | HN OPT | AMERICAN SIGN LANGUAGE 1

This is the introductory course in the study of American Sign Language. The content includes the basic receptive and expressive sign skills and sign vocabulary required to be able to communicate at a beginner’s level in American Sign Language. Basic finger spelling skills will also be stressed. Included in the class content are beginning linguistic and grammatical principles; appropriate facial markers and body movement; the manual alphabet and signed numbers; information on the effect of deafness on the individual; the history of the development of ASL and other sign systems; the education of deaf children; ASL stories, songs and poetry; and information about the deaf culture and community. Proficiency Level: Novice **Grades:** 9, 10, 11, 12

### L626 | HN OPT | AMERICAN SIGN LANGUAGE 2

This course focuses on further development of visual-spatial orientation and manipulations skills, sign vocabulary, and complex sentence structures. Students continue learning strategies for opening, sustaining, and closing general conversations on a range of topics. The course concentrates on developing the abilities to question, narrate, and give increasingly detailed descriptions of activities, interactions, plans, and directions. Students learn how to communicate clearly and express themselves in a culturally appropriate way. Total language immersion is used to enhance the learning process. All classes will be conducted in the target language (ASL) to further develop receptive and expressive skills - there will be no use of spoken language in the classroom. Proficiency Level: Intermediate. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** Successful completion of ASL 1

### L627 | HN OPT | AMERICAN SIGN LANGUAGE 3

This course focuses on further development of visual-spatial orientation and manipulations skills, sign vocabulary, and complex sentence structures. Students continue learning strategies for opening, sustaining, and closing general conversations on a range of topics. The course concentrates on developing the abilities to question, narrate, and give increasingly detailed descriptions of activities, interactions, plans, and directions. Students learn how to communicate clearly and express themselves in a culturally appropriate way. Total language immersion is used to enhance the learning process. All classes will be conducted in the target language (ASL) to further develop receptive and expressive skills - there will be no use of spoken language in the classroom. This course emphasizes practical experience by involving students in various educational activities using an online textbook (e-textbook). Students utilize receptive and expressive skills as well as their knowledge of Deaf Culture through first-hand interaction and exposure with deaf people via social media and video-phone calls. Students integrate their hands-on experience with related readings, classroom discussions and student presentations. Proficiency Level: Intermediate. **Grades:** 9, 10, 11, 12 **Pre-Reqs:** American Sign Language 2

