

# Special Music School

## 2019-2020 COURSE CATALOGUE

### ENGLISH DEPARTMENT

[ELA 9: The Art of Invention](#)

[ELA 10](#)

[ELA 11: Notes on the American Experience\(s\)](#)

[ELA 12](#)

[Advanced Placement: Language \(LANG\)](#)

[Advanced Placement: Literature \(LIT\)](#)

### HISTORY DEPARTMENT

[Global History 9](#)

[Global History 10](#)

[United States History](#)

[Advanced Placement United States History](#)

[Advanced Placement Government and Politics](#)

[Government and Economics](#)

### MATH DEPARTMENT

[Algebra 1](#)

[Algebra 2/Trigonometry](#)

[Geometry](#)

[Precalculus](#)

[AP Calculus AB](#)

### MUSIC DEPARTMENT

[Music Theory 9](#)

[Music Theory 10](#)

[Music Theory 11](#)

[Advanced Placement Music Theory](#)

[Music History](#)

[Music Technology](#)

[Ensembles](#)

### SCIENCE DEPARTMENT

[Living Environment](#)

[Chemistry](#)

[AP Computer Science A](#)

[Physics](#)

[Advanced Research Projects](#)

FOREIGN LANGUAGE DEPARTMENT

Spanish level 1A

AP Spanish

# ENGLISH DEPARTMENT

## ELA 9: The Art of Invention

Ninth graders – *Future Inventors* – are asked to pay attention to questions and wonderings.

They are asked:

- What might be learned by attending to your interests, your creative process, the world of literature, criticism, and theory that surrounds you?
- How might you tell your stories?
- How might you capture an audience?
- How might you contribute to our school's ongoing conversations?
- Why have certain readings become traditions and popular forms? And how have those forms been broken, subverted, and transcended? Why?
- How might we reinvent them for the future?

In our search for answers, we will learn to read, to write, and to make as a community of creative thinkers and artists. If we are on the right path to discovery – if we are even close to learning something worth knowing – then we will begin to learn how to make what is in our hearts and minds *real*. Each assignment is intended as an invitation to understand ourselves more deeply and to wonder more about the world.

And, in ninth grade, students learn to work together. As the wise philosopher and poet king Bob Dylan sings, "I'll let you be in my dream if I can be in yours." Our classroom becomes something like a shared dream, and we contribute our knowledge with Dylan's collective spirit. Students play many roles in class: listeners, advocates, tricksters, philosophers, contrarians, friends.

Always the aim is to learn, and all learning leads to sharing, to remixing, and to contributing to an emerging community of future invention.

### **Course Assessment:**

Portfolio

### **Pre-Requisites:**

Curiosity

Kindness

Hard work

### **Course Expectations:**

Students should expect 20-30 minutes of homework every night; daily classroom experiments; a portfolio of selected works.

### **Course Highlights:**

Remix! Remix! Remix!

## **ELA 10**

ELA 10 explores the ways that our uniquely situated perspectives shape our perceptions of the world around us. You will examine the impact of perspective on representation in the books we read, the movies we watch, the news we hear, and all of the media we ingest. Beyond that, however, we will articulate our own perspectives and how they shape our beliefs and ideologies through video, playwriting, poetry and, of course, essays.

As we investigate the texts of this course, we will investigate the techniques writers use to craft their perspectives into words. We will analyze the interplay between sentence level techniques – diction, details, tone – and narrative structures used by successful writers. The texts we engage with will be rich and layered. It will require intense and focused attention. The media we analyze will be thick with cultural implications that we will strive to elucidate.

In addition, we will not only read and analyze texts from classic and contemporary authors, but we will also use creative and artistic means to discover insights about the texts, express our newfound understandings, and internalize their techniques.

Through these investigations, we will critically expose the implicit and explicit assumptions embedded in these texts. Most importantly we will strive to enter into dialogue with the ideas and worlds of the authors, poets, and playwrights we encounter. Through intellectual ‘play’ we will breathe new life into the ideas of these works, and maybe discover their continued relevance to our lives.

### **Course Assessment:**

n/a

### **Pre-Requisites:**

ELA 9

### **Course Expectations:**

In addition to your regular homework assignments, which average 20 minutes in length, you are expected to maintain a consistent independent reading habit. You should be reading a book of your choice for at least 20 minutes a day. Additionally, there will be personal and analytic essays, drama writing assignments, research projects, and multi-modal projects throughout the year.

### **Course Highlights:**

#### **VOCABULARY – GREEK AND LATIN ROOTS**

Given that more than 90% of multisyllabic English words originated from Greek and Latin roots, the study of these roots will greatly benefit your advanced learning within almost any academic subject. Over the course of the year, we will delve into word trees and etymologies of common academic language. In turn, you will be asked to incorporate these words into your own creative and analytic writing.

#### **INDEPENDENT READING**

Repeated and consistent reading is perhaps the most effective means of building breadth of vocabulary, depth of technique, and familiarity with authorial techniques. To this end, students will be expected to have a consistent independent reading practice. This can be facilitated by a literate community of self-motivated

readers. We will regularly share our reading experiences with our classmates in order to build this community and expose each other to a constant flow of new titles and authors.

## **ELA 11: Notes on the American Experience(s)**

America has been described as a melting pot and a nation of immigrants. But what does it mean to be an “American” and to claim an “American” identity?

*Notes on the American Experience(s)* is intended to strengthen your creative powers as language users and meaning makers. The course will foster your abilities to “draw parallels between apparently unrelated phenomena to gain insight, make discoveries, offer hypotheses [and] wage arguments” (Pugh et al. 1992, 2). The heart of the course is driven by your imagination – what Pugh calls “metaphorical thinking.”

Crossing multiple genres and historical periods, we will explore a range of creative nonfiction (personal essays and memoirs, profiles, narrative essays, observational or descriptive essays, argumentative or idea-based essays, general-interest criticism, literary journalism and so on) by diverse American authors. We will ask how these writers have come to understand the United States; and how they use literary techniques and stylistic choices to represent their lived experiences. We will consider themes and theories of nationalism and belonging, movement and migration, individualism and community, happiness and success, and memory and memorializing. Students will develop their ability to reflect on and write about the ways they have been shaped by cultural and literary representations of America and American identity.

**Course Assessment:** English NYS Regents Exam

**Pre-Requisites:** ELA 9, ELA 10

**Course Expectations:** You are expected to read critically, communicate clearly, and think wisely as you become more capable in making powerful and creative use of your words. You should expect 30 minutes of nightly homework assignments. Homework consists of reading and responding to texts, drafting original pieces of writing and contributing to our online discussion forum.

**Course Highlights:** Students will develop their ability to reflect on and write about the ways they have been shaped by cultural and literary representations of America and American identity. Highlights include *Le Poeme Quotidien*, *My American Dream Sounds Like Podcast Project*, *New American Monument & Memorial Project*, *Contemporary Fiction Book Clubs*, *Independent Research Project* and class trips to the Museum of Food and Drink and the Museum of Modern Art.

## **ELA 12**

This year in ELA you will be engaging in a course that focuses on careful reading and critical analysis of imaginative literature. Much of this work will come through creative response and performance, as well as writing and revision. Our goal will be to deepen your understanding of the ways creators use language and other creative modes to provide both meaning and pleasure for their readers. As you read and create, you will be considering a work's structure, style and themes, as well as such smaller-scale elements unique to each mode of expression.

These literary and creative skills will be used to examine literature's place and function within the larger social world. We will consider how literature both reflects and shapes the nature of our social reality.

### **Course Assessment:**

n/a

### **Pre-Requisites:**

ELA 9, ELA 10, ELA 11

### **Course Expectations:**

#### **Reading**

The reading in this course will be both wide and deep. This reading builds upon and complements the reading done your past English courses so that by the time you complete this course, you will have read works from several genres and periods – from the 16th to the 21st century. In the course, you will read deliberately and thoroughly, taking time to understand a work's complexity, to absorb its richness of meaning, and to analyze how that meaning is embodied in literary and other artistic forms. In addition to considering a work's literary artistry, you will reflect on the social and historical values it reflects and embodies. Careful attention to both textual detail and historical context provides a foundation for interpretation.

#### **Response to Literature**

For this course, your responses to literature will consist of various genres and modalities, crafted for various purposes. To serve your understanding of the literature we read, you will write thorough annotations, commentaries and responses, leading up to literary analysis papers. In addition to analyzing the minutiae of authorial craft, you will also examine the underlying social values and implications of our texts. Furthermore, you will engage in creative writing as a means of understanding the techniques and workings of literature from the inside.

These different forms of writing will happen under varying circumstances. You will be asked to produce sophisticated and complex analyses under demanding time constraints. You will also engage in longer, more contemplative writing processes that stretch across multiple drafts, with peer and teacher feedback leading to substantial revisions. Finally, many of our pieces of writing will be crafted with an eye to publication beyond the immediate audience of our classroom.

Understanding is not simply a matter of verbal thinking. We live within physical bodies that move in a world of sensory experience. Our cultural values and beliefs are conveyed through multiple media. These physical experiences and multiple media are the raw matter of literature. Making meaning of this matter – carefully

observing details, establishing connections among these observations, and drawing a series of inferences leading to interpretive conclusions about meanings and values – requires other modalities of meaning-making. Playwriting, music composition, video production, and visual design will be some of the other modalities you will explore as means of making meaning of our texts, our selves, and our world.

You should expect 30 minutes of nightly homework assignments. Additionally, there will be college essays, personal and analytic essays, drama writing assignments, research projects, and multi-modal projects throughout the year. Every Friday we will have a TDF drama workshop, for which you are expected to keep a Drama Writing Journal.

**Course Highlights:**

For the last fourteen years, I have partnered with the Theater Development Fund to bring students to see Broadway shows. This year, we have been honored to be one of ten schools in the entire city to participate in the TDF Residency Project. Through this partnership, we will have a veteran guest artist, actor, photographer and voice actor Tom Picasso, working with us to create original dramatic works in conjunction with the literature we are studying. By creating characters with motivations, obstacles, and goals, we will explore subtle and authentic uses of persuasion. In order to examine the crafting of character and dramatic persuasion at its highest level, we will see two Broadway or Off-Broadway shows, one in the fall and one in the spring. Our show for this fall will be *Come from Away*, on December 11th. As of now, our spring show has not been determined.



## **Advanced Placement: Language (LANG)**

Deep Water: Language, Composition, and Collaborative Learning (AP Language and Composition) is intended to foster students' ability to "write effectively and confidently in their college courses across the curriculum and in their professional and personal lives" (College Board, AP English Course Description, 2010, p. 7). The organizing principle for the course comes from classical rhetoric, logic, argumentation, composition and the requirements and guidelines of the current AP English Course Description. Students attend to relationships between language, power, and usage: how language constructs identity, belief, culture, relationship, and worldview; how and why are certain languages used, privileged, or rejected; how language may be used effectively, precisely, and persuasively to achieve one's intended purposes. Students are expected to read critically, communicate clearly, and think wisely as they become more capable in making powerful use of words.

Course readings and writing assignments feature argumentative, expository, analytical, narrative, and poetic texts from a variety of authors and historical contexts. Students examine and work with essays, letters, speeches, images, and creative nonfiction from authors including Plato, Emerson, Hong Kingston, Foster Wallace, Twain, Baldwin, Orwell, Hazlitt, and Alexander. By engaging with these authors through experiential workshops, Harkness-style seminars, and prepared lectures that seek to explicate the texts and textual issues students are invited to become more alert to each author's purpose, their needs as an audience (and the needs of other possible audiences), the demands of the rhetorical situation, and the author's use of resources of language.

Students should expect to complete five hours of homework per week (at least 45 minutes of homework per night) and to dedicate a lunch period to working either in the collaborative learning center or in the MLK Writing Center. Assignments include close reading and annotation of selected texts; independent research for seminars, discussions, and debates; a photojournalism project; and short-form and long-form writing assignments that require thoughtful composition and revision.

**Course Assessment:** English NYS Regents Exam (January), Advanced Placement Exam

**Pre-Requisites:** ELA 9; ELA 10; Teacher recommendation, on-demand assessment, and 90% or above in ELA 10 (year average)

**Course Expectations:** Students should expect to complete five hours of homework per week (at least 45-60 minutes of homework per night) and to dedicate either a lunch period or time after school (in addition to the five class periods per week) to the Center for Collaborative Learning or the MLK Writing Center. Most weeks, students will write an in-class essay to prepare for the Advanced Placement Exam. In addition to these in-class essays, students will complete long-term projects and writing assignments. Students are expected to share their writing daily in small groups and with the class as a whole. The class deals with mature content and difficult concepts (including racial, gender, sexuality, economic, ethnic, religious, political and national differences), and students are expected to conduct themselves sensitively to each other and responsibly with the material. There will be homework and projects over breaks and long weekends.

**Course Highlights:** Students who take Lang become more sensitive and thoughtful as writers and readers. Students who take Lang receive intensive training in collaborative writing; these skills may be useful for people who hope to work in undergraduate writing centers during college. Students who take Lang join a rhetorical tradition that is literally thousands of years old. This power makes them better at making strong arguments (and at defusing and debunking fallacious arguments).

## **Advanced Placement: Literature (LIT)**

Fictive Truth: Reanimations, Speculations, and Alternative Histories (AP® Literature and Composition) is intended to foster students' ability to "write effectively and confidently in their college courses across the curriculum and in their professional and personal lives" (College Board, AP English Course Description, 2010, p. 7). The organizing principle for the course comes from established traditions in canonical literature, literary theory and criticism, philosophy, and the requirements and guidelines of the current AP English Course Description. Students look across time, space, and culture to construct and to question their literary values: how literary merit is decided, compared, and challenged; whose narratives are told, by whom, and whose interpretation is heard, valued, and respected in literate communities; and the disparate and often conflicting responsibilities we have to authors, to texts, and to ourselves as contributors to academic discourse. Students are expected to read critically, communicate clearly, and think wisely as they become fuller participants in our class community and as they become increasingly aware of existing fields of literary study.

Course readings and writing assignments feature argumentative, expository, analytical, narrative, and poetic texts from a variety of authors and historical contexts. Students examine and work with novels, poetry, letters, images, and imaginative literature from authors that may include (but are not limited to) Homer, Milton, Shelley, Jacobs, Douglass, Hurston, Whitehead, Saunders, Kafka, Marquez, Borges, Aristotle, Oliver, Woolf, Wood, and Shakespeare.

By engaging with these authors through experiential workshops, Harkness-style seminars, and prepared lectures that seek to explicate the text and textual issues students are invited to become more alert to each author's purpose(s); their needs as an audience (and the needs of other possible audiences); the interpretative possibilities, limitations, and distortions of critical theory; and the author's use of resources of language.

Students are expected to commit a minimum of five hours of coursework per week outside of class. This course work includes careful reading and annotation of selected texts, research for seminars and an independent project, and short-form and long-form writing assignments that require thoughtful composition and revision.

### **Course Assessment:**

Advanced Placement Exam

### **Pre-Requisites:**

ELA 9; ELA 10; ELA 11/LANG; Teacher recommendation, on-demand assessment, and 90% or above in ELA 11/LANG (year average)

### **Course Expectations:**

Students should expect to complete five hours of homework per week (at least 45-60 minutes of homework per night) and to dedicate either a lunch period or time after school (in addition to the five class periods per week) to the Center for Collaborative Learning or the MLK Writing Center. Most weeks, students will write an in-class essay to prepare for the Advanced Placement Exam. In addition to these in-class essays, students will complete long-term papers, projects, and writing assignments. Students are expected to share their writing daily in small groups and present their thinking to the class as a whole. The class deals with mature content and difficult concepts (including racial, gender, sexuality, economic, ethnic, religious, political and national differences), and students are expected to conduct themselves sensitively to each other and responsibly with the material. There will be homework and projects over breaks and long weekends. The course culminates in a

senior thesis that invites students to choose an author of literary merit to study intensely. This paper is presented to and discussed with invited classmates, faculty, and parents at an academic symposium.

**Course Highlights:**

Students who take LIT read, interpret, critique, and criticize seminal texts, countercultural texts, and experimental texts across time, space, culture, and canon. Students who take LIT enjoy a small, seminar-style community that values close reading and carefully considered writing. Students who take LIT join a belletristic tradition that is arguably as old as culture itself: a tradition that values content knowledge and knowing; interpretative skill and aesthetic appreciation; the discipline of reading, the field of literary study, and the dispositions that enable a rich and meaningful lifetime of learning.

# HISTORY DEPARTMENT

## Global History 9

Global I spans the period from pre-history to 1750. By the end of the year, you will be familiar with the major cultural and historical trends in Europe, Africa, Asia and the Americas that shaped the world we live in. In this class, we will hone our critical thinking through research projects, presentations, and writing assignments and learn to examine causal relationships and historical perspectives in greater depth through primary and secondary source material. This class emphasizes self-expression: speaking, writing, and questioning history, invaluable skills for academic success in high school, college and beyond. Steady practice and attention is given to the content, vocabulary, and historical thinking skills needed to be an active and engaged civic member.

### Course Assessment:

Global History NYS Regents Exam (taken June of 10th Grade)

### Pre-Requisites:

None

### Course Expectations:

Nightly homework includes written reflections, multiple choice practice, reading, or research work. Students conduct 2 independent research papers (one in the fall, and one in the spring). Nightly homework averages 20-30 minutes a night.

### Course Highlights:

You like to learn about different civilizations (political, social, and economic structures). You like to have academic discussions (small and large group format). You like to ask questions and want to strengthen your research skills

## **Global History 10**

This course will start where 9th Grade left off in June and carry you through the history of the world until present day. Students will explore what are perhaps the most fascinating, exciting, and disturbing time periods and events in all of human history; the domination of absolute rulers, Ages of Exploration, the Age of Enlightenment and Reason, the rise and spread of democratic, communist, socialist, and fascist governments, two world wars, the development of the atomic bomb, the creation of the present-day Middle East, genocide, the Cold War, human rights, groundbreaking advances in technology...and the list goes on. By the end of the course, students will have a nuanced understanding of why the world is the way that it currently is, and perhaps even what the future holds for us all.

This course also represents an important turning point in a student's social studies education in two important ways: First, it brings to a close your two-year study of Global History as the class concludes with the Regents Exam in June, which students are required to pass in order to graduate high school! Second, students will be expected to be more involved with the work, to write at greater lengths, provide more detail and analysis, and ask more challenging questions. We will all work together to ensure that everyone accomplishes these important goals.

### **Course Assessment:**

Global History NYS Regents Exam

### **Pre-Requisites:**

Global History 9

### **Course Expectations:**

Homework is assigned 4-5 nights a week. The average assignment takes about 15-20 minutes to complete, though on occasion students will be responsible for longer assignments.

### **Course Highlights:**

This is the course for you if....

1. You want to understand why the world is the way that it currently is.
2. You are interested in discovering the powerful political, economic, and social forces that sparked major developments, events, and turning points in modern world history.
3. You want to continue to hone your critical thinking, reading, writing, and analytical skills in order to become a more well-informed global citizen.

## **United States History**

US History will explore American history through the lens of choice and progress. From the founding fathers who organized against the British all the way through present day including the War on Terror. It will be our job to investigate and uncover the motives and ideas we read to determine our own truth. We will take on controversial issues and debate how the history of our past has influenced the world today. Through essays, presentations, and debates, our main focus will be how to effectively voice your own opinions based on evidence and facts.

### **Course Assessment:**

United States NYS Regents Exam

### **Pre-Requisites:**

Global 10

### **Course Expectations:**

Nightly homework includes practice multiple choice, reflection, annotated readings. Nightly homework averages 20-30 minutes a night. There are homework assignments over most of the breaks. Assessments include in-class writing (thematic and DBQ essays).

### **Course Highlights:**

You like investigating history through multiple perspectives and artifacts. You want to strengthen your historical writing skills. You like to ask questions and discuss your findings.

## **Advanced Placement United States History**

At its core, our course raises some important questions about what it means to be an American: to what extent has the United States forged a national identity, considering its people come from diverse backgrounds and possess diverse interests and experiences? How close has the United States come to realizing the ideals of its founders? Have noble intentions been forever corroded by the realities of slavery, discrimination, poverty, conflict, war, and special interests? As the United States faces its future, especially after September 11th, can it expect from its people a unity that respects diversity, patriotism that respects dissent, and laws that respect individual rights? These are just a few of the questions we will grapple with in this course as you develop a broad, deep knowledge of the history of the United States and an enhanced understanding, through a study of contemporary events, of the role of the United States in today's world.

AP US History is a rigorous, fast-paced and challenging course designed to be the equivalent of a college freshman US History survey course. It is a year-long survey of American history from the Age of Exploration to the present that is designed to help you develop (1) an understanding of the principle themes in early and modern U.S. History, (2) an ability to analyze historical evidence, and (3) an ability to analyze and to express historical understanding in writing and other forms of communication. Students should possess strong reading and writing skills and be willing to devote substantial time to homework, study, and all assignments in order to succeed. Emphasis is placed on discussion, critical reading, analytical writing, and interpretation of primary and secondary sources and historiography.

### **Course Assessment:**

Advanced Placement Exam

### **Pre-Requisites:**

Global 9 & 10

### **Course Expectations:**

Homework is assigned every night and typically takes students anywhere from 45 min to 60+ minutes each night. Often, due to the fast-paced nature of the course, assignments are also given over holiday breaks.

### **Course Highlights:**

1. You want to delve deeply into the nuanced historical and political forces that have shaped today's world, starting with the "discovery of America" through present day..
2. You are seeking a rigorous history course that will offer a serious academic challenge
3. You are looking to hone your historical thinking, writing, and analytical skills to match a collegial level.

## **Advanced Placement Government and Politics**

This course serves as an introduction to the US national government. It is taught with the conviction that students want to know not only who governs but also what difference it makes who governs. As citizens we all deal with the consequences of federal, state and local laws and regulations. This course is designed to enable students to develop a critical perspective towards government and politics in the United States. Students will examine general political concepts as well as specific case studies. It is important that every student in this class stays informed of recent political events in order to be able to intelligently and logically discuss current events in the context of what we are learning in class

### **Course Assessment:**

Advanced Placement Exam

### **Pre-Requisites:**

Global 9 & 10, US History (11), teacher recommendation, on-demand assessment, 85+ average for US History

### **Course Expectations:**

Nightly homework averages an hour a night. Expect assignments over breaks.

### **Course Highlights:**

You like to engage in projects and simulations. You are interested in politics, the government, and current events. You enjoy class discussions and debates.



## **Government and Economics**

As Americans, we have an opportunity to shape the government and its actions in many ways through our representative democracy. However, with these rights and privileges come great responsibilities. This course is designed to, among other things, help you embrace your role as a global citizen with enthusiasm, insight, and healthy skepticism as you develop an understanding of how our government and political climate operate.

Right now, America finds itself at a crossroads, amidst a particularly tumultuous political landscape and in the face of unprecedented challenges. Events and developments seem to be unfolding at a breakneck pace. Pressing issues such as climate change and environmental policy, terrorism, immigration, gun control, the resurgence of white nationalism and neo-Nazism, political corruption, Black Lives Matter, health care, abortion rights, increasing tension with our most trusted allies and our enemies alike, taxes, crumbling infrastructure, trade policy, LGBTQIA rights, the controversies surrounding the current administration, and our \$21.48 trillion federal debt, among many other things, dominate the headlines.

By the time we return to school next year, the 2020 Presidential Race will be well underway. The outcome of this election will have consequences for our nation for generations to come – for better or worse. We will devote a significant amount of time seeing how things unfold.

Lastly, because this is a class about the United States' government and politics, it's only fair that we do our best to emulate how our government works. At its core, the government is intended to be operated by the people, for the people, and of the people. Thus, you, as citizens of this class, will have a voice in what we decide to study in our class.

### **Course Assessment:**

None

### **Pre-Requisites:**

Global History & US History

### **Course Expectations:**

Homework is assigned 4-5 nights a week and typically takes between 15-30 minutes to complete.

### **Course Highlights:**

1. You want to become a well-informed, critical member of the global community. 2. You will have a significant voice in determining what specific areas of US government we will study in class. 3. You want to delve deeply into political issues that you personally care about.



# MATH DEPARTMENT

## Algebra 1

Throughout this course, students will develop algebraic skills that will lay the foundation for all future math classes. Time in class is often spent frequently working in groups while solving problems, engaging in discussions, and critiquing and analyzing others work. New content is explored and discussed in class or can be given as a video for homework. This is a blended learning classroom, meaning that sometimes students watch the lecture for homework and class time is spent applying and practicing those skills. This course is common core aligned and students will be taking the Common Core Algebra 1 regents exam in June. The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. The units deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. The Mathematical Practice Standards apply throughout this course and together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

### Course Assessment:

Algebra 1 NYS Regents Exam

### Pre-Requisites:

None

### Course Expectations:

A TI-84+ graphing calculator is required for this course as well as internet access at home. This course has roughly 25-30 minutes of nightly homework and doing it nightly and on time is an expectation of this course. There are no break assignments.

### Course Highlights:

1. Algebra 1 lays the foundation for math knowledge and concepts for all future math classes
2. Algebra 1 is required for HS graduation.
3. Algebra 1 makes you a better thinker.

## **Algebra 2/Trigonometry**

Throughout this course, students will develop algebraic skills that will lay the foundation for all future math classes. Time in class is often spent frequently working in groups while solving problems, engaging in discussions, and critiquing and analyzing others work. New content is explored and discussed in class or can be given as a video for homework. This is a blended learning classroom, meaning that sometimes students watch the lecture for homework and class time is spent applying and practicing those skills. This course is common core aligned.

Building on their work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

### **Course Assessment:**

Algebra 2/Trigonometry NYS Regents Exam

### **Pre-Requisites:**

Algebra 1

### **Course Expectations:**

A TI-84+ graphing calculator is required for this course as well as internet access at home. This course has roughly 30 minutes of nightly homework and doing it nightly and on time is an expectation of this course. Break assignments consist of PSAT and SAT problems and completing them are an expectation of this course. Each break assignment takes about 90 minutes to complete.

### **Course Highlights:**

1. Algebra 2 is a requirement for graduation.
2. Passing the Algebra 2 regents exam is a requirement for an advanced regents diploma
3. Algebra 2 is considered the first of more advanced math courses. Success in Algebra 2 will set you up for success in future math courses.

## **Geometry**

In this class we will be covering the following topics: introductory geometric language, reasoning and proof, line geometry, triangle geometry, polygon geometry, similarity, transformations, geometric constructions, area, volume, and circle geometry. This course is designed to prepare you for the Common Core Geometry Regents exam in June.

### **Course Assessment:**

Geometry NYS Regents Exam

### **Pre-Requisites:**

n/a

### **Course Expectations:**

Frequent homework, Mastery Assessments, minimal or no homework over breaks.

### **Course Highlights:**

Hands on use of geometric tools for accurately constructing geometric objects.

## **Precalculus**

Throughout this course, students will develop skills and thinking habits that will prepare them for college mathematics classes as well as AP Calculus. Time in class is spent learning and practicing new content, frequently working in groups while solving problems, engaging in discussions, and critiquing and analyzing others work.

Pre-Calculus weaves together previous study of algebra, geometry, and mathematical functions into a preparatory course for calculus and college mathematics. The course focuses on mastery of critical skills and exposure to new skills necessary for success in subsequent math courses. Throughout the course, Common Core standards are taught and reinforced as the student learns how to apply concepts to real life situations. Topics include fundamental concepts of Algebra, functions and graphs, polynomials and rational functions, exponential and logarithmic functions & series, trigonometric functions, analytic trigonometry, trigonometric equations, and an introduction to Calculus.

### **Course Assessment:**

No state assessments. A midterm and final are given.

### **Pre-Requisites:**

Algebra 1, Geometry and Algebra 2

### **Course Expectations:**

A TI-84+ graphing calculator is required for this course as well as internet access at home. This course has roughly 30 minutes of nightly homework and doing it nightly and on time is an expectation of this course.

### **Course Highlights:**

PreCalculus prepares you for Calculus and college math classes.

## **AP Calculus AB**

Calculus uses mathematics concepts and applications that students have studied in previous courses. It also ties together mathematics and science. Although it can stand as a discipline on its own, Calculus is a necessary “tool” in physics, engineering and actuarial fields. The goal of this course is to instill an understanding of the concepts and to show many applications in the real world.

The topics covered in this AP Calculus AB course are listed below.

- Functions
- Limits
- Derivatives
- Application of Derivatives
- Techniques of Anti-differentiation
- Derivatives and Integration of Trigonometric Functions
- The Definite Integral
- Application of Definite Integrals
- Derivatives and Integration of Inverse Functions
- The Calculus of Logarithmic and Exponential Functions
- Differential Equations and Special Limits

**All students in the class are expected to take the corresponding Advanced Placement (AP) Examination in May.**

### **Course Assessment:**

Advanced Placement AP Calculus AB Exam

### **Pre-Requisites:**

An 85% or above in Precalculus

### **Course Expectations:**

Frequent homework, Mastery Assessments, minimal or no homework over breaks.

### **Course Highlights:**

Understanding of Calculus from graphical, numerical, analytical and verbal perspectives where appropriate, and exposure to the applications of Calculus in real-world scenarios.

## MUSIC DEPARTMENT

### **Music Theory 9**

Students explore intervals, scales, key signatures, and form via analysis, composition, performance, and creative projects.

**Course Assessment:**

n/a

**Pre-Requisites:**

n/a

**Course Expectations:**

Nightly homework 45 min-1hr

**Course Highlights:**

1. They will learn how to interpret expressive intent in music. 2. They will learn to process music faster and with greater depth. 3. They will enhance their creative skills through the study of this very important important art form.



## **Music Theory 10**

Students embark on an in-depth study of harmony via analysis, composition, performance, and creative projects.

### **Course Assessment:**

n/a

### **Pre-Requisites:**

n/a

### **Course Expectations:**

Nightly homework 45min-1hr

### **Course Highlights:**

1. They will learn how to interpret expressive intent in music. 2. They will learn to process music faster and with greater depth. 3. They will enhance their creative skills through the study of this very important important art form.

## **Music Theory 11**

Students explore melody, harmony, form, etc with greater depth via analysis, composition, performance, and creative projects. Studies include secondary dominants, chromaticism, extended forms, etc. This culminates in the AP Theory Exam (College Board), and may result in college credit for various institutions.

### **Course Assessment:**

n/a

### **Pre-Requisites:**

n/a

### **Course Expectations:**

Nightly homework 45min-1hr

### **Course Highlights:**

1. They will learn how to interpret expressive intent in music. 2. They will learn to process music faster and with greater depth. 3. They will enhance their creative skills through the study of this very important important art form.

## **Advanced Placement Music Theory**

Students embark on a rigorous and comprehensive study of music theory that covers all academic topics in the subject area, including sight-singing, dictation, harmonic composition, in-depth analysis, and more.

### **Course Assessment:**

Advanced Placement Exam

### **Pre-Requisites:**

Music Theory 9 & 10, Teacher Recommendation

### **Course Expectations:**

Nightly homework averages 1.5 hours a night.

### **Course Highlights:**

1. They will learn how to interpret expressive intent in music. 2. They will learn to process music faster and with greater depth. 3. They will enhance their creative skills through the study of this very important important art form.

## **Music Technology (9th & 10th Grade)**

This course is designed to give students skills in Music Technology with an emphasis on hands on creative work. Topics covered include (but are not limited to): acoustics, microphones, recording, audio interfaces, audio editing, audio effects, digital audio workstation software, MIDI, software instruments, live instruments with electronic sound, active listening and critical responding.

**Course Assessment:** n/a

**Pre-Requisites:** n/a

**Course Expectations:** Students will complete projects as in-class assignments and homework assignments. Homework involves software, editing skills, and small creative assignments. Students will pursue active listening in the acousmatic tradition

**Course Highlights:**

## Music History 9

This course will offer a chronological progression through the seven major musical eras: Medieval, Renaissance, Baroque, Classical, Romantic, 20th Century, Contemporary.

**Course Assessment:** n/a

**Pre-Requisites:** n/a

**Course Expectations:** Students will spend time listening, considering handouts (scores, and other supporting materials), taking notes (board work), discussing topics as a class (participation is very important), conducting performances and presentations (periodic). Weekly homework assignments include listening excerpts that require written responses, short answer definitions, and essays. Summative tests culminate each unit.

**Course Highlights:** Students will come to understand and differentiate the musical eras and their associated composers and aesthetics

## Music History 10

Students will come to understand more deeply the major threads and trends through music history. More specifically, this course will focus on the genres that helped create and codify the different eras and aesthetics of their time (Opera, Symphony, Keyboard, Programatic versus Absolute Music)

**Course Assessment:** n/a

**Pre-Requisites:** Music History 9

**Course Expectations:** In class you'll spend time listening to music, considering handouts (scores, and other supporting materials), taking notes (board work), discussing topics as a class (participation is very important), and conducting performances and presentations (periodic).

**Course Highlights:** We will highlight the major composers and compositions in each era, and inspect the musical forms these composers used.

## **JUNIOR MUSIC ELECTIVES**

### **Music, Art & Architecture**

My hope is that you come to understand the musical eras more deeply with the inspection of musical works and their associated paintings, poetry, prose and architecture. This course will highlight major creators and creations in music influenced by other art forms.

**Course Assessment:** n/a

**Pre-Requisites:** n/a

**Course Expectations:** The course will delve more deeply into the musical eras discussed in basic music history by inspecting not only musical works and composers, but through exploring the influencing fine art, poetry and architecture of the time. In class you'll spend time listening, considering handouts (scores, and other supporting materials), taking notes (board work), discussing topics as a class (participation is EXTREMELY important), conducting performances and presentations (periodic). Homework assignments include essays, written responses to listening excerpts, research projects and other creative assignments. Each unit culminates in a test.

**Course Highlights:** To an extent, this course will be student-directed, meaning that class discussion and participation can, and hopefully will, influence the weekly topics.

### **Composition for Non-Composers**

**Course Assessment:**

**Pre-Requisites:**

**Course Expectations:**

**Course Highlights:**

### **Advanced Projects in Music Technology, Exploring Narrative I**

This class is designed to give students advanced skills in music technology with an emphasis on hands-on creative project work. Wherever applicable, this project-based course will focus on expressing personal narratives and autobiographical exploration. We will continue exploring concepts from previous music technology classes, but will delve deeper for a greater understanding of the subject matter, both technically and artistically. Topics covered include (but are not limited to): History of electronic music, Acoustics, Microphones, Recording, Audio interfaces, Audio editing, Audio effects, Digital audio workstation software,

Sound synthesis, MIDI (Musical Instrument Digital Interface), Software instruments, Live instruments with electronic sound, Active listening, Critical responding (written and verbal)

**Course Assessment:** n/a

**Pre-Requisites:** Music Technology 1 & 2 (9th and 10th)

**Course Expectations:**

**Course Highlights:**

## **Audition Workshop for Conservatories & Music Schools**

**Course Assessment:**

**Pre-Requisites:**

**Course Expectations:**

**Course Highlights:**

## **College Admissions Workshop**

**Course Assessment:**

**Pre-Requisites:**

**Course Expectations:**

**Course Highlights:**

## **Music & Arts Leadership Seminar**

**Course Assessment:**

**Pre-Requisites:**

**Course Expectations:**

**Course Highlights:**

## **SENIOR MUSIC ELECTIVES**

### **The American Experience in Music**

Students explore the creation of genres throughout the history of American music, from Native American to Blues, Jazz, R/B, Rap/Hip-Hop, Contemporary, and more. This is a hybrid theory/history course and aligns with content students have learned in their history and music theory curricula.

**Course Assessment:** n/a

**Pre-Requisites:** 3 years of Music Theory

**Course Expectations:** approximately 30 minutes of homework each night

**Course Highlights:** Students will have the opportunity to explore the artists they know and love with great depth, in addition to emulating their styles in creative compositions and/or research projects.

### **Advanced Projects in Music Technology, Exploring Narrative II**

This class is designed to give students advanced skills in music technology with an emphasis on hands-on creative project work. As the 11th grade Music Technology curriculum focuses on personal narratives and autobiographical exploration, this project-based course for 12th graders will focus on expressing external narratives; the stories of our people and communities. We will continue exploring concepts from previous music technology classes, but will delve deeper for a greater understanding of the subject matter, both technically and artistically. Topics covered include (but are not limited to): History of electronic music, Acoustics, Microphones, Recording, Audio interfaces, Audio editing, Audio effects, Digital audio workstation software, Sound synthesis, MIDI (Musical Instrument Digital Interface), Software instruments, Live instruments with electronic sound, Active listening, Critical responding (written and verbal)

**Course Assessment:** n/a

**Pre-Requisites:** Music Technology 1 & 2 (9th and 10th), Advanced Projects in Music Technology, Exploring Narrative I

**Course Expectations:**

**Course Highlights:**

## **Outreach & Engagement**

**Course Assessment:**



**Pre-Requisites:****Course Expectations:****Course Highlights:**

## SCIENCE DEPARTMENT

### Living Environment

Living Environment is a Regents-based, high-school level Biology course that allows students to understand how life works, from the smallest cells in our bodies to the extensive ecosystem and biosphere that we are a part of. Students learn through a variety of activities, such as labs, Socratic Seminar discussions, debates, projects, inquiry-based activities, presentations, modeling, case studies, and POGIL's. Through this course, students learn how to design and conduct their own scientific experiments, analyze data, form conclusions, develop scientific literacy skills, and question the ethical implications of current events in science. This course provides students with a basic framework of Biology, and prepares students for advanced science courses, such as AP Biology and Chemistry. This course also prepares students for the Living Environment Regents exam, and students can expect to take weekly Regents quizzes, complete practice problems using Castle Learning, and take Regents-based unit exams.

**Course Assessment:**

Living Environment NYS Regents Exam

**Pre-Requisites:**

Middle School Science

**Course Expectations:**

Students can expect to complete about 2-3 hours of homework per week, which includes readings, vocabulary exercises, Edpuzzle videos, flipped classroom video lectures/note taking, preparation for Socratic Seminars, and lab reports. Students complete Regents-based homework problems over breaks to reinforce test-taking skills.

**Course Highlights:**

Students have the ability to design and carry out their own investigations. Students learn using inquiry-based activities, such as modeling biological processes with play dough and neon chalk and solving case studies. Students learn real-world applications of biology and have the opportunity to debate and discuss biological ethics through Socratic Seminars and debates.

## **Chemistry**

Chemistry is a one-year course which explores the structure, properties, and interactions of matter on a macro, micro, and symbolic level. This course is aligned with the NYS Science Learning Standards and culminates with the NYS Regents Examination "Physical Settings: Chemistry". All students are expected to sit for and pass this examination which is administered in June. In order to be eligible to sit for the chemistry Regents examination students are required to complete 1200 minutes of laboratory experiments. In this course, emphasis is placed on developing concepts through inquiry, and laboratory experiences are stressed.

Instructional Focus: Introduction to Chemistry (Lab Safety & Measurement), Atomic Concepts, Periodic Table and Periodic Trends, Physical Behavior of Matter, Chemical Bonding, Moles and Stoichiometry, Kinetics and Equilibrium, Acids, Bases and Salts, Organic Chemistry, Redox and Electrochemistry, Nuclear Chemistry

### **Course Assessment:**

Chemistry NYS Regents Exam

### **Pre-Requisites:**

Algebra

### **Course Expectations:**

Technology: Castle Learning, Google Classroom, PhET Simulations; Homework: ~3 hours of HW per week and no HW over breaks; Exams: 1 per unit (only 1 make-up per quarter); Quizzes: 1 per week

### **Course Highlights:**

Lab Experiences with Fire! Learn about the exciting things that chemists do. Chemistry is a "central science!" You will have a deeper understanding of the other sciences and math as it connects everything.

## **AP Computer Science A**

AP Computer Science A mirrors the traditional first-semester programming course offered at 4-year colleges and universities. Students learn all fundamental concepts of programming in Java, an object-oriented programming language. In a nutshell, computer science is an exploration of the root ideas that allow us to build sophisticated programs. Statements, conditionals, iteration, methods, objects, classes, arrays, and arraylists are covered as students solve high-level programming challenges.

### **Course Assessment:**

AP Computer Science Exam

### **Pre-Requisites:**

None (math through Geometry encouraged)

### **Course Expectations:**

Technology: Castle Learning, Google Classroom, PhET Simulations Homework: ~3 hours of HW per week and no HW over breaks Exams: 1 per unit (only 1 make-up per quarter) Quizzes: 1 per week

### **Course Highlights:**

Physics is where we play! Physics will help you to understand the scientific laws and mechanics behind your music! It will blow your mind and make you rethink everything you thought you understood about the mechanics of the world around you.

## **Physics**

Physics is a one-year course in which students will study the laws that govern the physical world. This course is aligned with the NYS Science Learning Standards and culminates with the NYS Regents Examination "Physical Settings: Physics". All students are expected to sit for and pass this examination which is administered in June. To be eligible to sit for the physics Regents examination students are required to complete and document 1200 minutes of laboratory experiments. In this course, emphasis is placed on developing concepts through inquiry, and laboratory experiences are stressed. Instructional Focus: Measurement in Science, Kinematics, Dynamics, Vectors, Two-Dimensional Motion, Momentum, Work, Power, and Energy, Waves

### **Course Assessment:**

Physics NYS Regents Exam

### **Pre-Requisites:**

Algebra 2/Trigonometry Course & NYS Regents Exam, Chemistry

### **Course Expectations:**

Technology: Castle Learning, Google Classroom, PhET Simulations Homework: ~3 hours of HW per week and no HW over breaks Exams: 1 per unit (only 1 make-up per quarter) Quizzes: 1 per week

### **Course Highlights:**

Physics is where we play! Physics will help you to understand the scientific laws and mechanics behind your music! It will blow your mind and make you rethink everything you thought you understood about the mechanics of the world around you.

## **Advanced Research Projects**

STEM research is related to real world issues. It requires a thoughtful critique of all aspects of investigation as well as extensive opportunities in designing and executing investigations. STEM research is a complex social activity that provides an avenue for establishing and maintaining positive lifelong relationships among students, teachers and mentors. It also promotes insight and analytical skills needed and addresses matters of public concern. Students will actively seek information by building connections, rather than just by absorbing facts.

Advanced Research Projects is a course which affords students the opportunity to pursue authentic STEM research. Students will become proficient in the research process and skills necessary to solve scientific problems of their choosing. Students will independently design and perform a controlled experiment based on extensive research conducted by the student. Upon completion of the laboratory component, students will write a research paper based on their results and present their findings formally in symposia. Students will also gain the experience of competing in regional science research competitions.

**Course Assessment:** Projects, Classwork, Homework and Participation.

**Pre-Requisites:** Strong Organizational Skills.

**Course Expectations:** Students will design and carry out their own, original research project. This research will be presented in science fair competitions. Students must apply to all competitions discussed in class. Students must attend at least one competition discussed in class for the school year. Students are expected to spend time outside of class working on their project.

**Course Highlights:** Students get to deepen their understanding and expand their thinking on an area in STEM that they are passionate about studying. Every Friday is "Science Friday" where teams of students lead a discussion on a current STEM issue. Additionally, there will be guest speakers to talk about their research as well as the potential to work with mentors if students choose to pursue research outside of the classroom.

# FOREIGN LANGUAGE DEPARTMENT

## Spanish level 1A

Students learn to communicate ideas about a variety of everyday and cultural topics using at least 50 verbs in the present tense. Grammatical topics include regular and irregular verb conjugation, gerunds, noun/adjective agreement, possessive pronouns and interrogative pronouns.

**Course Assessment:** Students are assessed using quizzes, tests and on-demand writing pieces. The writing portfolio pieces are prompts that ask students to use what we have learned in class to write responses without using their notes and materials. Speaking is also graded in class, and as long as a student follows the prompts in class to participate in modeled activities they receive satisfactory or better scores.

**Pre-Requisites:** none

**Course Expectations:** Students participate completely in Spanish in listening, reading, writing and speaking activities. We also use online programs including Quizlet and Duolingo to supplement class lessons. Homework is assigned daily and students are expected to review notes and memorize verbs and vocabulary on a regular basis. Homework is always a review of what we have done in class and therefore students should not be using online translators.

**Course Highlights:** This course allows students to begin to think and communicate in Spanish and is the foundation for more advanced courses that will be offered at SMS.

## AP Spanish Language and Culture

**Course Assessment:** Assessments mirror the speaking, listening, reading and writing tasks on the AP Spanish Language and Culture exam.

**Pre-requisites:** by invitation only for native speakers and students who are highly proficient in the language.

**Course Expectations:** Students are expected to communicate entirely in Spanish while reading texts and articles from the Spanish-speaking world and presenting their ideas through writing and conversations. Students read a great deal of texts and annotate their reading to leave tracks of their thinking and revise and edit their writing according to the Ap exam writing rubrics.

**Course Highlights:** We explore many social issues, cultural themes and current events from around the world. Students lead conversations and reading and writing workshops using different protocols and are able to express well-developed ideas through essays and oral presentations. The course is divided into the following units: Families in Different Societies, The Influence of Language and Culture on Identity, Influences of Beauty and Art, How Science and Technology Affect Our Lives, Factors That Impact the Quality of Life and Environmental, Political, and Societal Challenges.

