

# 2024-2025 UPPER SCHOOL COURSE DESCRIPTIONS

FREDERICA ACADEMY



**ADVANCED PLACEMENT & HONORS**  
**COURSE REGISTRATION REQUIREMENTS**

ENGLISH DEPARTMENT			
Course	Prerequisite Course(s)	Minimum Grade	Additional Notes
AP Seminar	World Literature (English 9)	90	
AP English Language & Composition	English 10 (English Seminar)	90	These courses require students to read and comprehend challenging texts.
	Honors English 10 (AP Seminar)	87	
AP English Literature & Composition	American Literature	90	Students will read an average of 15 pages nightly and will be expected to discuss the texts in class.
	AP English Language & Composition	87	

MATH DEPARTMENT			
Course	Prerequisite Course(s)	Minimum Grade	Additional Notes
Honors Geometry	Algebra I (8th grade)	90	
Honors Algebra II	Honors Geometry	90 Homework Average 90 Quiz Average 87 Test Average	Rising 9th & 10th grade students who wish to enroll in Geometry and Algebra II simultaneously must have a minimum average of 98 in Algebra I and a teacher recommendation.
AP PreCalculus	Honors Algebra II	90 Homework Average 90 Quiz Average 87 Test Average	
AP Calculus AB	AP PreCalculus	90 Homework Average 90 Quiz Average 87 Test Average	

SCIENCE DEPARTMENT			
Course	Prerequisite Course(s)	Minimum Grade	Additional Notes
AP Biology	Biology & Chemistry	95	Should space allow for sophomore entry into AP Biology, the following criteria is required: minimum average of 98 in Honors Biology; minimum composite score of 25 on PreACT.
	Honors Biology & Honors Chemistry	90	
AP Chemistry	Biology & Chemistry	95	
	Honors Biology & Honors Chemistry	90	
AP Physics I Junior Year	Algebra II	95	Honors Chemistry course enrollment will be shared by the instructor within the first 4.5 of Chemistry.
	Honors Algebra II	90	
AP Physics I Senior Year	Algebra II	85	

SOCIAL SCIENCE DEPARTMENT			
Course	Prerequisite Course(s)	Minimum Grade	Additional Notes
AP World History: Modern	World History	90	
AP US History	World History	90	
	AP World History: Modern	82	
AP Comparative Government & Politics	World History or US History	90	
	AP World History or AP US History	80	
AP Macroeconomics	Honors Algebra II or Algebra II	85	
AP Microeconomics	Honors Algebra II or Algebra II	85	
AP US Government & Politics	World History or US History	90	
	AP World History or AP US History	80	

WORLD LANGUAGES DEPARTMENT			
Course	Prerequisite Course(s)	Minimum Grade	Additional Notes
Honors Spanish II	Spanish 8	93	
AP Spanish Language	Honors Spanish IV	87	
AP Latin	Honors Latin IV	93	

COMPUTER SCIENCE COURSES			
Course	Prerequisite Course(s)	Minimum Grade	Additional Notes
JavaScript II	JavaScript I	90	<p>Honors JavaScript and Honors Python course enrollment will be shared by the instructor within the first 4.5 of classes.</p> <p>Engineering courses must be completed in the following sequence: Introduction to Engineering; Intermediate Engineering; Advanced Engineering</p>
Artificial Intelligence Video Game Design Python I	JavaScript II	90	
Python II	Python I	90	
AP Computer Science Principles	Algebra I JavaScript II	90	
AP Computer Science A	AP Computer Science Principles	90	

In addition to meeting the minimum grade for Advanced Placement and Honors course registration, students must receive a recommendation from their prerequisite course teacher.

Students who feel they are deserving of a waiver of the requirements above must meet with Upper School Administration and the prerequisite course teacher to discuss their request for a waiver.

Transfer students may be asked to take a placement exam in order to ensure correct placement.

## ENGLISH

### ENGLISH CORE OFFERINGS

#### World Literature (Full Year)

In this course, students will examine texts from around the world, often translated into English editions. Students will develop their analytical skills of the major literary genres including--but not limited to--prose, poetry, and drama. In addition to expanding their vocabulary through composition, students will conduct research and provide thoughtful responses about the literature they read in order to develop their persuasive verbal and written communication skills.

#### English Seminar (Full Year)

During this inquiry-based course, students will explore the complexities of both academic and real-world issues as they relate to multiple perspectives (cultural, social, artistic, philosophical, political, historical, environmental, scientific, and ethical). Students will be empowered with the skills necessary to research and analyze information in order to craft and communicate evidence-based arguments, while practicing ethical research, working collaboratively with a team, evaluating real-world and/or academic problems and issues, proposing solutions or resolutions, and defending arguments through multimedia presentations.

#### AP Seminar (Full Year)

“AP Seminar is an interdisciplinary course that encourages students to demonstrate critical thinking, collaboration, and academic research skills on topics of the student’s choosing. To accommodate a wide range of student topics, typical college course equivalents interdisciplinary or general elective courses” (*AP Seminar Course Overview*).

During this inquiry-based course, students will explore the complexities of both academic and real-world issues as they relate to multiple perspectives (cultural, social, artistic, philosophical, political, historical, environmental, scientific, and ethical). Students will be empowered with the skills necessary to research and analyze information in order to craft and communicate evidence-based arguments, while practicing ethical research, working collaboratively with a team, evaluating real-world and/or academic problems and issues, proposing solutions or resolutions, and defending arguments through multimedia presentations.

#### American Literature (Full Year)

Through nonfiction, novels, short fiction, poetry, and film from the 20th century, students will explore American Literature. The course asks a series of basic questions: What is an American? What are American responsibilities to nature? What are some of the important poems of the 20th and 21st century? How do some anchor text novels treat the idea of post WW2 America? The second important strand in the course is writing. Students will practice and be assessed on their writing for different audiences and purposes.

#### AP English Language and Composition (Full Year)

Students in the Advanced Placement English Language and Composition course read, analyze, and work with literature, essays, letters, speeches, and images to deepen their awareness of rhetoric and of how language works to construct persuasive arguments. “An AP English Language and Composition course cultivates the reading and writing skills that students need for college success and for intellectually responsible civic engagement. The course guides students in becoming [or more likely, continuing to become] curious, critical, and responsive readers of [sic] diverse texts and becoming flexible, reflective writers of texts addressed to diverse audiences for diverse purposes. The reading and writing students do in the course should deepen and expand their understanding of how written language functions rhetorically: to communicate writers’ intentions and elicit readers’ responses in particular situations.” (“AP English Language and Composition Course” p. 11).

#### AP English Literature and Composition (Full Year)

Using the AP English Literature and Composition Course and Exam Description as the curricular framework for the course, the class is “an introductory college-level literary analysis course. Students cultivate their understanding of literature through reading and analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works” (*AP Literature and Composition Course Overview*). This rigorous course will challenge students to support interpretations, both in writing and in open class discussions, of various literary texts. Students will sharpen their critical thinking skills with complex text and hone the craft of writing through each part of the writing process. While students will complete some levels of test preparation, the primary objective of the course is to foster lifelong readers and critics of literature. Through literature, students explore worlds unlike their own, which enables them to develop empathy for different cultures, genders, ethnicities, religions, and nationalities and helps them better understand humanity and societies we create.

## ENGLISH

### ENGLISH ELECTIVES

#### **Creative Nonfiction Writing (Semester)**

Creative nonfiction is a semester length course in which students learn the conventions of contemporary nonfiction (particularly first person material) and read examples drawn from the late 1960's to present. Students will write their own versions of non-fiction, such as reporting, memoir, science/nature writing, and other expository modes. Along with short essays, students will work on one semester long writing project of their own choice.

#### **Writing for Digital Media (Semester)**

"Content is King." When Microsoft founder, Bill Gates, said this in 1996 even he probably didn't realize how right he would eventually be about what computing did for the way humans would eventually consume information and entertainment. However, not all content is insightful, honest, or well made. What keeps someone from scrolling past a post or TikTok video? Why does a Twitch stream go viral? In this course, students will create a variety of compositions and productions that reflect the changes in media consumption. From how to draft, record, and edit an audio file for Spotify to how to shoot a product video for Youtube, students will evaluate what makes content high quality and then design and create their own content for a variety of online platforms. By the end of the course, students will emerge with a comprehensive skill set in writing for digital media, equipped to navigate the evolving landscape of online communication and contribute meaningfully to the digital conversation. "Writing for Digital Media" empowers students to not only express themselves creatively but also to be informed and responsible digital communicators in an interconnected world.

## MATHEMATICS

### MATHEMATICS CORE OFFERINGS

#### **Algebra I (Full Year)**

This course is a study of the basic algebra concepts, with emphasis on simplifying numeric and algebraic expressions, solving equations, factoring techniques, and solving various types of word problems, including but not limited to percents and proportions. It is also an introduction to functions and graphing both linear and quadratic equations and inequalities. Solving and graphing systems of equations and inequalities are also introduced, as

well as operations with radical and rational expressions. The final concepts deal with quadratic functions and formulas readily used to be successful in Geometry.

#### **Geometry (Full Year)**

This Geometry course integrates the study of plane and solid geometry. The course reinforces the concepts of intermediate algebra through the solution of geometric problems. Units of study include inductive and deductive reasoning, formal proofs, angle relationships, perpendicular lines, parallel lines and planes, congruent triangles, properties of polygons and special quadrilaterals, similar polygons, similarity and right triangles, right triangle trigonometry, circles, areas of polygons and circles, surface area and volume of solids, and coordinate geometry. Honors Geometry is a course offering for advanced math students.

#### **Algebra II (Full Year)**

Algebra II is a course that reviews and extends the concepts and skills obtained during the Algebra I and Geometry series. This course includes simplifying expressions, solving equations and inequalities, sequences and series of real numbers, linear functions and relations, systems of linear equations in two and three variables, polynomials and their factors, rational algebraic expressions and equations, radical expressions and equations, quadratic equations, complex numbers, rational and irrational exponents, logarithms, quadratic relations and systems, conics and basic trigonometric functions, and operations to help prepare the student for the next level of mathematics. Honors Algebra II is a course offering for advanced Math students.

#### **PreCalculus (Full Year)**

PreCalculus is a two-semester sequential course that is designed to prepare students for college mathematics courses. Topics included are polynomial functions and their graphs, inverse functions, variations, rational functions and their graphs, complex numbers, exponential functions and their graphs, logarithmic functions and their graphs, systems of linear equations in two and three variables, systems of inequalities in two variables, trigonometric functions and identities, triangular applications, and, if time allows, an introduction to conic sections.

### **AP PreCalculus (Full Year)**

AP PreCalculus, a course for advanced math juniors, is designed to prepare students for AP Calculus or Calculus. Topics included are polynomial functions and their graphs, rational functions and their graphs, complex numbers, exponential functions and their graphs, logarithmic functions and their graphs, inverse functions, variations, systems of linear equations in two and three variables, systems of inequalities in two variables, conic sections, trigonometric functions and identities, triangular applications, vectors, polar coordinates, sequences and series, permutations, combinations, and probability. Introduction to limits is the final topic covered.

### **Calculus (Full Year)**

This two-semester sequential course is an overview of Differential and Integral Calculus, designed to prepare students for College Calculus. Emphasis is placed on techniques for finding limits, derivatives and integrals of functions.

### **AP Calculus AB (Full Year)**

AP Calculus AB is a two-semester course that adheres to the course requirements set forth by the Advanced Placement division of the College Board. It is a sequential course of Differential and Integral Calculus. Topics included are a review and extension of basic precalculus concepts, algebraic functions and their graphs, limits, continuity, the derivative of a function, differentiation of algebraic and trigonometric functions, implicit differentiation, related rates, optimization and other applications of derivatives, L'Hôpital's Rule, differential equations, anti-differentiation, definite integrals, integration and techniques of integration, and applications of integrals. This course is equivalent to a Calculus I college course.

### **AP Calculus BC (Full Year)**

AP Calculus BC is a two-semester course that adheres to the course requirements set forth by the Advanced Placement division of the College Board. It is a sequential course of Differential and Integral Calculus. Topics included are limits and continuity, defining and calculating derivatives, applications of the derivative, the integral, Fundamental Theorem of Calculus, differential equations, applications of the definite integral, sequences, L'Hôpital's Rule, improper integrals, series, and parametric and polar functions. As this course includes all topics from AP Calculus AB, those topics will be covered at a faster pace so that more time may be spent on the additional topics that are covered only in the BC course. This course is the equivalent to a Calculus II college course.

## **SCIENCE**

### **SCIENCE CORE OFFERINGS**

#### **Biology (Full Year)**

Biology is a full year course in the field of science concerned with the study of living organisms. During the school year the students will investigate life on all levels through study, observation, and experimentation. A significant portion of the course will be devoted to work in the laboratory. Study includes organic chemistry, the cell, DNA, genetics, evolution, viruses, bacteria, protists, fungi, plants, animals, ecology, and environmental biology. Enrollment in Honors Biology will be explained during the first quarter of the course.

#### **Chemistry (Full Year)**

Chemistry is a course that introduces chemistry to students. It presents basic chemistry concepts without rigorous mathematics, although basic math skills are needed. The student will have a solid chemistry background necessary to continue in science. Topics include basic atomic theory, the periodic law, periodic relationships, basic bonding and molecular geometry, mole theory, stoichiometry, basic gas laws, solutions, thermochemistry, equilibrium, and acids and bases. Enrollment in Honors Chemistry will be explained during the first quarter of the course.

#### **AP Biology (Full Year)**

AP Biology is a course designed to mimic the introductory college Biology curriculum. The subject matter is similar to the regular Biology class, but in greater depth and detail, with special emphasis on organic chemistry, molecular biology, DNA, genetics, evolution, ecology, and environmental biology. A significant portion of the course will be devoted to work in the laboratory. A test is taken at the end of the year to determine possible exemption of the introductory course in college.

#### **Physics (Full Year)**

The Physics course is designed to provide the student with a broad knowledge of the principles of classical physics and the ability to solve problems. The first semester concentrates on Newtonian Mechanics. Newton's laws governing force and motion and the laws of conservation of momentum and energy serve as the foundation for solving problems. Topics involving projectile and circular motion, gravitation, impulse and momentum, energy and work, and machines are covered. The second semester concentrates on electricity and magnetism, wave behavior, sound and light, and quantum theory.

### **AP Physics 1 (Full Year)**

AP Physics 1 is an introductory college-level physics course that uses algebra to explore topics such as Newtonian mechanics (including rotational motion), work, energy, power, momentum, and fluid mechanics. Students will develop scientific critical thinking and reasoning skills through inquiry-based learning. This course requires hands-on laboratory work for 25 percent of the instructional time, with a focus on inquiry-based investigations that allow students to apply the science practices.”

### **AP Chemistry (Full Year)**

AP Chemistry is a course designed to present the equivalent of a one - year freshmen College Chemistry Course. It offers the opportunity to earn college credit (determined by AP score) as well as high school credit. Students will gain an in-depth understanding of the fundamentals of chemical and mathematical problem solving. At least 25% of the course will involve laboratory activities that would be comparable to a college level laboratory experience. The subject matter is similar to the regular Chemistry class, but in greater depth and detail, with special emphasis on stoichiometry, thermodynamics, atomic theory, bonding and molecular shapes, acids and bases, chemical equilibrium, and electrochemistry. Emphasis is placed on depth of understanding of a topic, rather than the breadth of topics.

## **SCIENCE**

### **SCIENCE ELECTIVES**

#### **Astronomy (Semester)**

Astronomy is a one semester survey class in which students will learn about planets, stars, galaxies, the universe, nebulae, pulsars, quasars, supernovas, telescopes, absorption spectra, gravity, the sun, earth’s movements, seasons, star charting, and other astronomical phenomena. Students will follow an online textbook and spend some time in the laboratory, as well as spend several nights each semester using telescopes and binoculars for sky observation. This course is highly recommended for students interested in pursuing college study in the sciences.

#### **Anatomy (Semester)**

Anatomy is a one semester class in which each student will learn about the human body and its mechanisms, from the structure and function of individual cells and organs to that of the body as a whole. One or two chapters are devoted to each body system, including the integumentary, skeletal, muscular, nervous,

cardiovascular, lymphatic, immune, digestive, respiratory, urinary, and reproductive systems. Both the anatomy and physiology of each body system is studied in depth. A recommended course for anyone interested in pursuing a career in a health related profession.

#### **Marine Biology (Semester)**

Marine Biology is a one semester survey class in which students will learn about ocean life, the ocean floor, seawater, marine plants and animals, marine ecology, shoreline biology, and marsh/ estuary biology. Students will spend a significant portion of time in the laboratory, as well as attending several off campus activities that investigate our local environment, ecology, and area science labs and research facilities.

## **SOCIAL SCIENCE**

### **SOCIAL SCIENCE CORE OFFERINGS**

#### **World History (Full Year)**

This course focuses on early and classical civilizations of Asia, Africa, Europe, and the Americas, through approximately 1500 CE. Key topics include the emergence of civilization and the development of agriculture, economics, political systems, imperialism, literature, philosophy, and religion. The course will also focus on the study habits, critical thinking, and writing skills necessary for success in future history courses.

#### **U.S. and World Affairs (Semester- Fall)**

This course will examine and discuss some of the major issues at home and abroad today while using the sporting arena as a foundation. For each topic, we will introduce the subject by viewing documentaries, reading excerpts from books, or researching articles from the athletic realm. Then, we will look at the history that shaped the current situation, identify the major players, organizations and/or countries involved, and discuss the relevance and importance of this topic as well as its potential long-term impact, all while also considering potential solutions and courses of action. The course will focus on events relating civil rights, nationalism, terrorism, immigration, illegal drugs, and post-Cold War America. Students will be required to read and watch the news, build perspectives and opinions from a variety of sources, and formulate their points of view. The class will cultivate critical thinking and put an emphasis on class participation and inquiry, documentary film analysis, and topic presentations. *This course is exclusively for 10th graders.*

### **World Geography (Semester- Spring)**

This world geography course will provide students with a base understanding of the world's geography and maps, and an analytical view of how geographic factors have and continue to influence human behavior on the earth.

- Evaluate how the physical and human characteristics of places and regions are connected to human identities and cultures.
- How natural and man-made resources, location, language, alliances, religion, culture and history affect the region.
- How ethnic compositions of various groups have led to diversified cultures, including architecture, traditions, food, art, and music.
- Evaluate how cooperation and conflict among people influence the division and control of key geographic regions.
- Understand how and why borders and regions have been formed and their relevance and impact.

Course to be taught with emphasis on class discussion, gap analysis, SWOT analysis, and group projects and presentations.  
*This course is exclusively for 10th graders.*

### **AP World History: Modern (Full Year)**

AP World History: Modern is an introductory college-level modern world history course. Students will cultivate their understanding of world history from c. 1200 CE to the present through analyzing historical sources and learning to make connections and craft historical arguments as they explore concepts like humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation. Students will learn how to think critically and employ historical reasoning skills such as analyzing sources, developing historical arguments, making historical comparisons, making connections among historical developments in different times and places, and analyzing contextualization, causation, and continuity and change over time.

### **United States History (Full Year)**

This eleventh grade history course covers the history of the United States from the beginning of English settlement in North America to the modern era while emphasizing events, movements, institutions, and patterns that have helped shape modern America. Content of this course will include Colonial America, the Revolutionary War and its aftermath, the Articles of Confederation and Constitution, Jeffersonian and Jacksonian eras, reform movements of the nineteenth century, and Manifest Destiny. The Civil War and Reconstruction, immigration and industrialism,

Populism and Progressivism, World War I, the Jazz Age, the Great Depression, the New Deal, World War II, and post-World War II America will serve as the main topics for the second semester.

### **AP U.S. History (Full Year)**

AP U.S. History is a challenging course that provides an opportunity for advanced students to engage in college-level study of American history, with emphasis on critical and analytical thinking, persuasive and analytical writing, interpretation and analysis of primary source documents and historical data, and the philosophy and methodology of history. It is also an opportunity for students to develop their understanding of American history by covering the nine major time periods. Students may earn college credit for the course if they are successful on the AP exam taken in May, depending on the policies of their chosen college. Solid reading and writing skills and the willingness to devote considerable time to homework and study are necessary for success. Students are expected to become independent, active learners and engaged during classroom discussions.

## **SOCIAL SCIENCE**

### **SOCIAL SCIENCE ELECTIVES**

### **AP Comparative Government & Politics (Semester)**

AP Comparative Governments is a semester course designed to introduce students to the rich diversity of political life outside the United States. Students may earn college credit for the course if they are successful on the AP exam taken in May, depending on the policies of their chosen college. The course uses a comparative approach to examine the political structures, policies, as well as the political, economic, and social challenges among six selected countries: Great Britain, Mexico, Russia, Iran, China, and Nigeria. Additionally, students examine how different governments solve similar problems by comparing the effectiveness of approaches to many global issues. Introduction to Comparative Politics; Sovereignty, Authority, and Power; Political Institutions; Citizens, Society, and the State; Political and Economic Change; Public Policy will serve as curriculum themes.



### **AP Macroeconomics (Semester)**

AP Macroeconomics is a college-level course that introduces students to the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination. It also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.

### **AP Microeconomics (Semester)**

AP Microeconomics is a college-level course that introduces students to the principles of economics that apply to the functions of individual economic decision-makers. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.

### **AP U.S. Government & Politics (Semester)**

AP U.S. Government and Politics is a semester course designed to provide students with an analytical perspective on government and politics in the United States and establish a foundation for civic participation. Students may earn college credit for the course if they are successful on the AP exam taken in May, depending on the policies of their chosen college. In this course, students will examine the key concepts leading to the development of the U.S. government as well as critically examine the political and government structures and policy-making bodies in the United States, with an eye to gaining a fuller understanding of the rights and duties associated with effective American citizenship. The Foundations of American Democracy, Interactions Among Branches of Government, Civil Rights and Liberties, American Political Ideologies and Beliefs, Political Participation will serve as curriculum units.

### **Economics & Finance (Semester)**

This is a semester-long survey class of the principles of personal finance and the economic foundations of our increasingly complex financial world. Four major sections of our economic and financial world are studied: Investment techniques and terms, Credit and Mortgages, the Federal Reserve and Monetary/Fiscal Policy and Federal Tax Code/Insurance. A final project includes the creation of a Mutual Fund and a presentation on the performance of the investments that have been tracked for a 14 week period.

### **History of Rock (Semester)**

The History of Rock is a course designed to familiarize the student with the historical, social, cultural, and musical forces that contributed to the emergence and eventual development of rock music. Students will gain a better understanding of historical trends, change, and innovation in rock by learning ways to identify and analyze rock music based on performer, genre, era, and influence. Topics covered will include the origins of rock music, the 1950s and Elvis, the British Invasion and the psychedelic Sixties, Disco, Punk, New Wave, Rap, Grunge, and others.

### **Leadership Theory & Practice (Semester)**

This course is the first on a student's journey to leading effective teams and organizations. It is aimed at helping students develop themselves as individual leaders by focusing on personal growth and leadership styles. In addition to examining the development of an individual's leadership skills, several other issues will be explored such as the ordering of one's private world, the personal character of the leader, and becoming a leader that lasts. To aid in their exploration, the leadership styles of historical figures will be analyzed.

## **WORLD LANGUAGES**

### **SPANISH OFFERINGS**

#### **Spanish I (Full Year)**

The first year course in Spanish is based on the building blocks of the language. This course encourages students to use the vocabulary, language structures, and grammar they have learned and to apply the concepts through projects, skits, presentations, interviews, and story creation. This course also exposes students to Hispanic culture through readings and video presentations.

#### **Spanish II (Full Year)**

Spanish II expands language competency in listening, speaking, reading and writing in a proficiency-oriented curriculum. The course expands student knowledge by enforcing the essential elements of reading, speaking, and writing. A continuous study of Spanish culture and civilization is reinforced with varied projects encouraging developing interests. The class is taught exclusively in Spanish and students are expected to participate orally every class period.

### **Honors Spanish II (Full Year)**

Honors Spanish II expands language competency in listening, speaking, reading and writing in a proficiency-oriented curriculum. The course exceeds the regular requirements for the capable and highly motivated student to develop a higher level of proficiency. The course expands student knowledge by enforcing the essential elements of reading, speaking, and writing. A continuous study of Spanish culture and civilization is reinforced with varied projects encouraging developing interests. The class is taught exclusively in Spanish and students are expected to participate orally every class period. Honors Spanish II is taught exclusively to freshmen.

### **Spanish III (Full Year)**

In Spanish III, students further develop their communicative skills in speaking and writing and their interpretive skills in reading and listening. They develop their presentational skills through various projects and presentations. Students master more complex grammatical structures and develop the ability to discuss topics related to contemporary events, the environment, volunteerism, and inspirational figures. Students are expected to participate orally every class period in Spanish.

### **Honors Spanish III (Full Year)**

In Honors Spanish III, students further develop their communicative skills in speaking and writing and their interpretive skills in reading and listening. Students learn more complex grammatical structures. Students develop the ability to discuss topics related to contemporary events, the environment, volunteerism, and inspirational people. Honors students acquire additional vocabulary beyond the Spanish III curriculum, work at a faster pace, and work on more challenging selections and activities. Students are expected to participate orally every class period and speak Spanish 100% of the time. Honors Spanish III is taught exclusively to sophomores.

### **Honors Spanish IV (Full Year)**

Honors Spanish IV focuses on mastery of advanced grammatical structures and vocabulary acquisition. Students improve cultural competence, auditory comprehension, reading comprehension, and speaking and writing skills through the use of authentic music, videos, texts, podcasts, and a multimedia text. Students learn about Spanish History and Spanish Art, from prehistoric times until today. Spanish is used exclusively in the classroom and is a course designed for juniors and seniors.

### **AP Spanish Language and Culture (Full Year)**

The AP Spanish Language and Culture Course reinforces and sharpens students' language and critical thinking skills across three communication modes: interpersonal, interactive, and presentational. Students gain greater competence in the Spanish language and literature, and social, environmental, and cultural issues in the Spanish-speaking world. Students are prepared to take the AP Spanish Language and Culture Exam which focuses on six holistic themes. Spanish is used exclusively in the classroom.

## **WORLD LANGUAGES**

### **LATIN OFFERINGS**

#### **Latin I (Full Year)**

The first year of Latin begins to build proficiency in the language through comprehensible oral and written input, with the goal of developing a basic working vocabulary and understanding of syntax. In order to provide cultural context to the language, readings and class discussions will also involve relevant information about the ancient Roman world.

#### **Latin II (Full Year)**

The second year of Latin continues to build proficiency in the language through comprehensible oral and written input, with the goal of developing an intermediate working vocabulary and understanding of syntax. In order to provide students with a richer cultural background, readings and class discussions will also involve relevant information about the ancient Roman world and Greco-Roman mythology. Students enrolled in Latin II as freshmen will receive an Honors designation for the course.

#### **Latin III (Full Year)**

The third year of Latin continues to build proficiency through comprehensible oral and written input. Students will read intermediate texts from various authors, time periods, and cultural contexts, which will vary from year to year. In addition to the ancient Roman world, we will discuss the evolution of the Latin tradition through the medieval and modern periods, in order to highlight its breadth and diversity. Students enrolled in Latin II as sophomores will receive an Honors designation for the course.

### **Honors Latin IV (Full Year)**

The fourth year of Latin continues to build proficiency through comprehensible oral and written input. Students will read intermediate texts from various authors, time periods, and cultural contexts, which will vary from year to year, and which will continue to highlight the diversity of the Latin tradition.

### **AP Latin (Full Year)**

The AP Latin course involves close reading of passages from Caesar's *Gallic War* and Vergil's *Aeneid*. Students are required to prepare and translate the readings and to discuss them with respect to their cultural, historical, and literary context. In addition to the assigned Latin passages, students will read additional passages from these works in English, the better to understand each work as a whole.

## **FINE ARTS**

### **Art I (Semester)**

Art I is a foundation course focusing on the elements and principles of art. Students explore a variety of media through six-week intervals of color theory (painting), sculpture (ceramics), and drawing. Technical skills are developed using a wide range of tools and processes. Art History is integrated into projects for historical and cultural significance.

### **Art II/III (Semester)**

Art II and Art III build on the knowledge of Art I as students advance to more difficult assignments and media. Continuing in six-week intervals students are challenged to use the creative process in problem solving. Technical skills are refined as students continue to work in a variety of media. Students must complete Art I or have a teacher recommendation to enroll in advanced Art classes.

### **Digital Design (Semester)**

Digital Design involves designing in digital space so the created content can be displayed and seen on a digital device. In this course, students will create digital drawings, animations and interactive sketches while also learning how to code. In addition, students will learn the basics of web design, app design and 3D design.

### **Fundamentals of Audio Technology (Semester)**

Fundamentals of Audio Technology will take students through processes using DAW software and audio hardware to produce high quality recordings. Students will learn studio recording processes such as signal flow, signal processing, microphone placement techniques, sound design, sound manipulation, mixing, editing, and mastering through interactive recording projects. Students will choose from a number of projects including sound walks, podcasting, foley art, chamber studio recording, and multitrack mixing. In addition to learning the processes of studio recording, students may also learn the live sound production skills necessary to produce live concerts in both classical and popular genres.

### **Graphic Design (Semester)**

Graphic Design Fundamentals is an introductory course designed to expose students to the areas of graphic design and web design using programs from the Adobe Creative Cloud Suite. Students will explore graphic communications through the understanding of the elements and principles of design; as well as, the design process, from idea development through the final execution of a printed, digital, or product design. Students will be engaged in 2D and 3D computer art, web design, digital photography, and portfolio development.

### **Popular Music Ensemble (Full Year)**

This is an instrumental performance class. While the primary instruments are guitar, bass, keyboard, drums, and vocals, instruments from the woodwind, brass, and string families are welcome to enroll. PME integrates culturally relevant music into a learner-centered music curriculum. Audio-Video technology tools are used as a significant component of instruction.

At the beginning level, students must be able to read simple notated music, understand chord charts, and demonstrate a desire to perform. Applied music theory and sight-reading skills are taught throughout the levels. There are required rehearsals and performances outside of the regularly scheduled class meeting times.

The PME track offers the four following sections while placement is decided upon by the instructor and administration:

Performance PME

Concert PME

Advanced PME

Popular Music Ensemble

*(Prerequisite: Vocal and/or Instrumental proficiency interview)*

### **Yearbook (Full Year)**

Yearbook class offers opportunities to develop skills in photography and journalism as well as digital publishing. Students produce a professional publication through graphic design, page layout, and writing. Students should be prepared to edit texts, work as a team, and meet very strict production deadlines.

## **COMPUTER SCIENCE**

### **AP Computer Science Principles (Full Year)**

AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. This course can be taken using either the JavaScript or Python programming language.

### **AP Computer Science A (Full Year)**

AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

### **Artificial Intelligence (Semester)**

The Introduction to Artificial Intelligence (AI) course teaches students important programming concepts that enable the use of AI in computer science and society at large. Students learn the implications of AI on society and develop a series of projects that illustrate the variety of ways AI can be used to optimize and predict information.

### **Cybersecurity I/II (Semester)**

As our world becomes increasingly dependent on technology, cybersecurity is a topic of growing importance. It is crucial that companies and individuals take precautions to protect themselves from the growing threat of cyber attacks. This course prepares students with crucial skills to be responsible citizens in a digital future.

### **Introduction to Engineering (Semester)**

This course presents an overview of the fundamentals of electronic circuit analysis, starting with an overview of electrical theory and moving to simple circuit components like power supplies, resistors, capacitors, LED lights, and inductors. Students will build circuits on breadboards and solder circuits on PCBs. They will learn basic CAD design and 3D printing to add to their learning about circuits and then design and create functional projects.

### **Intermediate Engineering (Semester)**

Students will learn Arduino basics and programming in C++, advanced CAD using Fusion 360, laser cutting and CNC basics. They will build on their knowledge from Introduction to Engineering with higher level circuit projects. A minimum of three intermediate projects will be completed involving CAD designing, soldering and programming Arduinos in C++.

### **Advanced Engineering (Semester)**

This course continues to build on concepts learned in Introduction to Engineering and Intermediate Engineering. New concepts learned will include Raspberry Pis, advanced level Fusion 360 and PCB design. Students will choose a project(s) of their choice to work on independently.

### **JavaScript I/II (Semester)**

Introduction to Computer Science in JavaScript teaches the foundations of computer science and basic programming in JavaScript. Beginning with how a computer and the binary number system works, students get a foundation to move on to learn basic programming. This course introduces students to HTML before moving into the main focus of programming in JavaScript which is the programming language commonly used to create interactive effects within web browsers. The primary emphasis will be on helping students develop logical thinking and problem solving skills as they learn the JavaScript language. Enrollment in Honors JavaScript will be explained during the first quarter of the course.

### **Python I/II (Semester)**

Python curriculum teaches the foundations of computer science and basic programming, with an emphasis on helping students develop logical thinking and problem solving skills. Python is a general purpose programming language used for a wide range of tasks including testing microchips at intel, powering Instagram and building video games. Enrollment in Honors Python will be explained during the first quarter of the course.

### **Video Game Design (Semester)**

This semester course teaches students the fundamentals of game design by using Unity's game engine. By the end of this course, students will understand the design planning process, be knowledgeable of industry related careers, and be able to navigate the Unity environment in order to create their own 3D games. This course will prepare students for the second semester course of Game Design in Unity. Note: student devices must be able to download and install the Unity platform (not compatible on Chromebooks).

### **Web Design (Semester)**

The semester Web Design course is a project-based course that teaches students how to build their own web pages. Students will learn the languages HTML and CSS, and will create their own live homepages to serve as portfolios of their creations. By the end of this course, students will be able to explain how web pages are developed and viewed on the Internet, analyze and fix errors in existing websites, and create their very own multi-page websites.

## **ADDITIONAL COURSE OFFERINGS**

### **Advanced Fitness (Semester)**

#### *Health/Physical Education Elective*

Advanced Fitness is a sports-specific strength and conditioning program. Foundational weight-lifting movements including the squat, press, clean, and deadlift will be taught. Technique will come before intensity. Agility, balance, coordination, and endurance will comprise the conditioning aspect of the program.

### **Introduction to Business (Semester)**

This course provides opportunities to learn and experience a variety of topics in the field of business. Students are exposed to various economies, their roles in our economy, entrepreneurship, marketing, managing financial and technological resources, and the use of social media. Course activities involve students in writing, investigating, problem-solving, demonstrating, and reporting. Students will also utilize an online learning environment.