

FREDERICA ACADEMY

2022-2023 Upper School Course Descriptions

Upper School Motto

“To whom much is given, much is expected.”

Frederica Academy Mission

To maximize each student’s potential and prepare him or her for college and adult life through the development of mind, body, and spirit.

AP & HONORS COURSE REGISTRATION REQUIREMENTS

ENGLISH DEPARTMENT	<p>Honors English 10: Instructor of course will share details regarding Honors enrollment within the first 4.5 weeks of school.</p> <p>AP English Language and Composition: minimum average of 90 in World Literature II; minimum average of 87 in Honors English 10.</p> <p>AP Literature and Composition: minimum average of 87 in AP English Language and Composition; minimum average of 87 in American Literature.</p>
HISTORY DEPARTMENT	<p>AP World History: minimum average of 90 in World History I.</p> <p>AP US History: minimum average of 90 in World History II; minimum average of 82 in AP World History.</p> <p>AP Comparative Government & AP US Government: as approved by US Administration.</p>
MATH DEPARTMENT	<p>Students completing Algebra I in 8th grade must have a 90 average or above to enroll in Honors Geometry in 9th grade.</p> <p>To continue on in the Honors Math track, students enrolled in Honors must have earned a 90 or above in their Homework and Quiz averages and an 87 or above in their Test average.</p> <p>Rising 9th and 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.</p> <p>AP Statistics: minimum average of 90 in either Algebra II, Honors Algebra II, or Honors PreCalculus. Seniors cannot take AP Statistics in lieu of PreCalculus, Calculus or AP Calculus.</p>
SCIENCE DEPARTMENT	<p>Honors Biology & Honors Chemistry: Instructor will share details regarding Honors enrollment within the first 4.5 weeks of school.</p> <p>AP Biology & AP Chemistry (Junior Year): minimum average of 95 in Biology & Chemistry; minimum average of 90 in Honors Biology & Honors Chemistry.</p> <p>AP Physics I (Senior Year): minimum average of 85 in AP Biology or AP Chemistry.</p>
WORLD LANGUAGES DEPARTMENT	<p>9th Grade Honors World Language: minimum average of 93 in 8th grade Spanish or Latin.</p> <p>AP Spanish Language: minimum average of 87 in Honors Spanish IV.</p>
TRANSFER STUDENTS	
<p>Transfer students must earn an 87 or higher in AP Seminar or Honors English 10 to enroll in AP English Language. English 10 students must earn a 90 or higher to enroll in AP English Language.</p> <p>In order to enroll in all other Honors and AP classes, transfer students must meet Frederica Academy standards.</p> <p style="text-align: center;">Transfer students may be asked to take a placement exam in order to ensure correct placement.</p>	
PARENT/STUDENT REQUESTS	
<p>If a student or parent requests placement in an AP or Honors course and the student does not meet the requirements, then a meeting with the Upper School Administration must take place prior to enrollment in the class.</p> <p>Students and parents will be required to sign a form that expresses that placement is against the recommendation of the school.</p>	
The grades above reference averages for <u>both</u> first semester and Q3.	

FREDERICA ACADEMY UPPER SCHOOL COURSE DESCRIPTIONS

ENGLISH

ENGLISH CORE OFFERINGS

English 9 (Full Year) - 9th Grade

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 10 (Full Year) - 10th Grade

English 10 is a course designed to teach critical thinking and writing skills through the study of literature. Students will be challenged to see the world through different lenses as we examine the common human struggles and experiences that bind us to one another. We will ask: How does one develop and define identity? How does one define personal truth? What happens when one is different from others? Where does one find power? What does it mean to be human? Students who opt in to the honors-level course will be given additional assignments that require higher level thinking and synthesis skills as well as have higher expectations for both writing and participation in class discussions. The class will provide students with additional rigor and differentiated instruction and is aimed at students who plan to pursue Advanced Placement Language and Composition and/or Advanced Placement English Literature and Composition in their junior and senior years respectively.

(Honors Designation Available - See AP and Honors Requirements)

American Literature (Full Year) - 11th Grade

In exclaiming three simple words, the United States' Constitution not only enshrined the phrase "We the people..." into American law, it originated a philosophy of democratic self-critique about whose stories contribute to the American democratic experiment. In the beginning these three words were exclusive to white land-owning men. Eventually this included poor men; then men of color; then women. Cultural concepts of the United States have always professed a desire to promote personal perspectives. However, which voices were included in that narrative have always come at the exclusion of others. The United States is an evolving understanding of democracy--who is represented and who has access to democratic acts. Its history eventually includes new voices it once silenced, making "We the people..." all the truer in each successive generation. In this class, students will explore different American voices across the three major literary genres: prose, poetry, and drama. This class aims to examine and express how American Literature has changed over time as history has added different voices and perspectives to the American Experience.

AP English Language and Composition (Full Year) - 11th Grade

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).

(Prerequisite: See AP and Honors Requirements)

Literature and Composition (Full Year) - 12th Grade

This senior level English course blends composition and literature into a cohesive whole. Students will write critical and comparative analyses of selected literature, continuing to develop and strengthen their skills for college level English classes.

AP English Literature and Composition (Full Year) - 12th Grade

Using the AP English Literature and Composition Course and Exam Description as the curricular framework for the course, the class is designed to engage students in weekly discussion of a variety of genres of literature from a variety of time periods. Assignments are created to help them use the literature to develop literary arguments that are well supported, analytical, and rhetorically effective. In addition, the course is designed to help students better understand what it means to be human during these changing times.

(Prerequisite: See AP and Honors Requirements)

WORLD LANGUAGES

SPANISH OFFERINGS

Spanish I (Full Year)

The first year course in Spanish language 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)

Students will learn theme-based vocabulary and will integrate that vocabulary with grammatical concepts in real-life situations through writing stories, creating projects, performing skits, giving formal and informal presentations, and through image descriptions. The class is taught exclusively in Spanish and students are expected to participate orally every class period.

(Honors Designation Available - See AP and Honors Requirements)

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 encouraged to speak Spanish 100% of the time.

(Honors Designation Available - See AP and Honors Requirements)

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 speak Spanish 100% of the time.

(Prerequisite: Honors Spanish II)

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.

(Prerequisite: Spanish III)

AP Spanish Language and Composition (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.

(Prerequisite: Honors Spanish IV)

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. Students are encouraged to use Latin themselves in class whenever possible. 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.

(Prerequisite: Latin I, Honors Latin II Available - See AP and Honors Requirements)

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.

(Prerequisite: Latin II, Honors Latin III available- See AP and Honors Requirements)

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.

(Prerequisite: Latin III)

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 is a two-semester sequential course that 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.

(Prerequisite: Honors Designation Available - See AP and Honors Requirements)

Algebra II (Full Year)

This is a two-semester sequential 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.

(Prerequisites: Geometry, Honors Designation Available - See AP and Honors Requirements)

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, conic sections, trigonometric functions and identities, triangular applications, vectors, and introduction to limits.

(Prerequisite: Algebra II)

Honors PreCalculus (Full Year)

Honors PreCalculus is a two-semester sequential course aimed at junior students and which 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.

(Prerequisite: Honors Algebra II)

Calculus (Full Year)

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

(Prerequisite: PreCalculus)

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.

(Prerequisite: Honors PreCalculus, See AP and Honors Requirements)

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.

(Prerequisite: AP Calculus AB, See AP and Honors Requirements)

MATHEMATICS ELECTIVES

AP Statistics (Full Year)

AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. Students are introduced to concepts and tools for collecting, analyzing, and drawing conclusions from data. The four themes of the course are: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Specific topics include techniques to explore, visualize, and describe data, modeling distributions of data, describing relationships between variables, designing studies (sampling, surveys, and experiments), probability rules and distributions, random variables, normal distribution, sampling distributions, sample proportions and sample means, confidence intervals, tests of significance, comparing two populations or groups, inference for distributions of categorical data, and linear regression.

(Prerequisite: Algebra II, See AP and Honors Requirements)

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.

(Honors Designation Available - See AP and Honors Requirements)

Chemistry (Full Year)

Chemistry is a yearlong 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.

(Honors Designation Available - See AP and Honors Requirements)

AP Biology (Full Year)

AP Biology is a yearlong 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.

(Prerequisite: Chemistry - See AP and Honors Requirements)

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.

(Prerequisite: Algebra II)

AP Physics 1 (Full Year)

AP Physics 1 is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices.

(Prerequisite: Algebra II, - See AP and Honors Requirements)

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.

(See AP and Honors Requirements)

(Not offered during the 2022-2023 school year)

SCIENCE ELECTIVES

Anatomy (Semester)

Anatomy is a one semester class in which each student will learn about the human body and its mechanisms, from cells to tissues to organs to systems to that of the body as a whole. Each body system and its corresponding anatomical terminology are covered. Clinical terms and pathology for each system are reviewed as well. This is an excellent course for students interested in biology and medicine and planning on investigating those fields in college. A significant portion of the course will be devoted to work in the laboratory.

(Not offered for the 2022-2023 school year)

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.

Forensic Science (Semester)

The Forensic Science curriculum is designed to build upon science concepts and to apply science to the investigation of crime scenes. Students will learn the scientific protocols for analyzing a crime scene, how to use chemical and physical separation methods to isolate and identify materials, how to analyze biological evidence and the criminal use of tools, including impressions from firearms, tool marks, arson, and explosive evidence.

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 SCIENCES

SOCIAL SCIENCE CORE OFFERINGS

World History I (Full Year)

This course focuses on early and classical civilizations of Asia, Africa, Europe, and the Americas, through approximately 1500 C.E. 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.

World History II (Full Year)

This tenth grade history course examines the modern world from 1500 C.E. to the present. Topics will include: early modern economic systems and the age of kings; political revolutions; industrialization; imperialism; nationalism; the world wars; decolonization; the role of international organizations, and the world in the twenty-first century. Special emphasis is given to the development of argumentative essay writing and historical thinking skills like synthesis, contextualization and point-of-view.

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.

(See AP and Honors Requirements)

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. Political, economic, and social factors that have shaped the pattern of life in, and the institutions of the United States are given careful consideration. Special emphasis is given to the development of argumentative essay writing and historical thinking skills like synthesis, contextualization and point-of-view.

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.

(See AP and Honors Requirements)

SOCIAL SCIENCE ELECTIVES

AP US Government & Politics (Semester)

AP US 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. Topics include: Foundations of American Democracy, Interactions Among Branches of Government, Civil Rights and Liberties, American Political Ideologies and Beliefs, Political Participation.

(See AP and Honors Requirements)

AP Comparative Government and 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. Topics include: Introduction to Comparative Politics; Sovereignty, Authority, and Power; Political Institutions; Citizens, Society, and the State; Political and Economic Change; Public Policy.

(See AP and Honors Requirements)

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.

Global Cultures and Beliefs (Semester)

This course explores the religious traditions, beliefs, and philosophies of a diverse range of cultures, with an emphasis on the Indian, Chinese, and Abrahamic traditions shared by much of the world today. Students will be expected to read primary sources in translation and discuss their interpretations in class discussions and in writing. In the process, they should develop an understanding of each group's historical and global context, as well as an appreciation for what different traditions have in common and what makes each one unique.

History of Art (Full Year)

History of Art is intended as a two semester course introducing Western art and the art of other world cultures. First semester begins with the Paleolithic Era and continues through the Italian Gothic Period; the second semester begins with the Italian Renaissance and continues through the 21st century. Students may choose to take the semesters independently but are encouraged to take the entire year to gain a deeper appreciation of cross-cultural influences.

Psychology (Semester)

Psychology is a one-semester class in which students will study the behavior and mental processes of humans and how they are affected by a person's physical and mental states and environment. Topics include the various personality theories including Freudian theory, the biology of the brain, psychological disorders and treatment, and social and cultural psychology. Psychology is an introductory survey course providing a basic overview of all aspects of psychology rather than going into depth in any particular topic.

(Not offered for the 2022-2023 school year)

World Geography (Semester)

World Geography is a semester course designed to introduce students to understanding the world today. In this course, students will learn about the major regions of the world to include: The United States and Canada, Latin and South America, Europe, Russia and Northern Eurasia, Middle East and North Africa, Sub-Saharan Africa, South Asia, East and Southeast Asia, and Australia and Oceania. Within each region, students will explore topics such as population and migration, cultural patterns and processes, political organizations, agriculture, as well as industrial, urban, and economic development. By finding answers to the questions about the world around them, students will be able to understand the issues and provide solutions to the problems surrounding the world today.

COMPUTER SCIENCE

JavaScript I/II

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.

Cybersecurity I/II

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.

Engineering I/II

Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course. 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 learn basic CAD design and 3D printing to add to their learning about circuits and then design and create functional projects.

Python I/II

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.

(Prerequisites: JavaScript I and II)

Web Design

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.

AP Computer Science Principles

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.

(Prerequisites: Algebra I AND JavaScript I/II or Python I/II)

AP Computer Science A

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.

(Prerequisite: AP Computer Science Principles)

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.

(Prerequisite: Art I or teacher recommendation)

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.

Modern Band (Full Year)

This is an instrumental performance class. The primary instruments are guitars, bass, keyboards, drums, woodwinds, brass, and vocals. Modern Band integrates culturally relevant music into a learner-centered music curriculum. Audio-Video technology tools are used as a significant component of instruction.

At Level I, students must be able to read simple notated music 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.

(Prerequisite: Vocal and Instrumental proficiency interview)

Photography and Filmmaking (Semester)

In this course, students engage in digital photography and movie-making while using Adobe Photoshop, Premiere Pro, and After Effects. Students learn how to create multimedia pieces by using moving images and sound. Additionally, the course covers the fundamentals of media literacy and public communications media, such as marketing censorship, target audiences, copyright issues, and advertising campaigns. The course guides students in the production of high-quality digital media projects.

(Prerequisite for Level II: teacher recommendation)

Public Speaking (Semester)

Public Speaking is an introductory class to develop confidence in presentation and vocal skills. Students write and perform demonstrative, informative, persuasive, argumentative and public debate speeches. Additionally, students learn about the role of communication in our lives, the communication model, spatial relationships, delivery styles, and the effectiveness of language, gestures, and organizational techniques.

Further opportunities are offered in the National Debate and Speech Association, as well as speech contests.

(Not offered during the 2022-2023 school year)

Theater I/II (Semester)

This is a performance based class leading students through the collaborative process of playmaking and advanced character development. Students receive studio training in acting for stage and for the camera, movement and voice, and showcase their growth in school productions. Content includes the works of selected major playwrights as well as writing monologues and scripts. Level II students perform more challenging roles and are considered for major roles. Optional out-of-class performance opportunities are offered. The class will participate in a culminating showcase at the end of the year.

(Prerequisite for Level II: teacher recommendation)

Yearbook (Full Year)

As a course, Yearbook 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 advertisement sales. Students should be prepared to edit texts, work as a team, and meet very strict production deadlines.

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.

Entrepreneurship (Semester)

Business Elective

This course introduces students to the opportunities and challenges associated with the creation and management of entrepreneurial and small organizations. This course discusses innovative and contemporary approaches in addressing areas such as: starting, acquiring a business, succeeding in business, and franchising a small business venture. The course also provides the foundation for small business and an overview of business concepts, including topics such as: theories of entrepreneurship, types and characteristics of entrepreneurship, the business life cycle, entrepreneurial economics, accounting and financial management, legal issues, marketing research and planning, human resource management, ethics and social responsibility, product and service research development and acquisition. Guest Speakers will be scheduled throughout the course.

Geospatial Technology (Semester)

Technology Science Elective

Fundamentals of Geospatial Technology is a one semester course. This course will teach students the basics of the useful techniques of Global position systems and remote sensing. Students will learn key concepts of Geographic Information Systems (GIS), Remote Sensing, Global Navigation Satellite Systems (GNSS) Global Positioning System (GPS), and Location Based Services (LBS).

Health (Semester)

Health/Physical Education Elective

Our Health course combines scientifically accurate information and the application of skills necessary to achieve optimal health and wellness. It contains up-to-date information on developing and assessing every aspect of fitness and includes detailed instruction for peak performance and maintaining a healthy body weight.

Intro to Sports Marketing (Semester)

Business Elective

This course is designed to study marketing principles and concepts in the sports and entertainment industry. Instructional areas will include: An orientation to the sports and entertainment industry, economics, event execution, career opportunities, decision making, event marketing, advertising and promotion, and legal aspects/contracts. Classroom instruction will be reinforced through the use of outside lectures, case studies, possible field trip experiences, current periodicals, computer simulations, projects, and lecture/discussions.