

FREDERICA ACADEMY
**2023-2024 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

<p>ENGLISH DEPARTMENT</p>	<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 English 10; 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 90 in American Literature.</p>
<p>HISTORY DEPARTMENT</p>	<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>MATH DEPARTMENT</p>	<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 AP/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>SCIENCE DEPARTMENT</p>	<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, AP Physics I (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>
<p>WORLD LANGUAGES DEPARTMENT</p>	<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>
<p style="text-align: center;">TRANSFER STUDENTS</p>	
<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>Transfer students may be asked to take a placement exam in order to ensure correct placement.</p>	
<p style="text-align: center;">PARENT/STUDENT REQUESTS</p>	
<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>	
<p style="text-align: center;">The grades above reference averages for <u>both</u> first semester and Q3. Placement as at the discretion of Upper School Administration and the instructor.</p>	

FREDERICA ACADEMY UPPER SCHOOL COURSE DESCRIPTIONS

ENGLISH

ENGLISH CORE OFFERINGS

English 9 (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 10 (Full Year)

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)

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)

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)

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.

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.

(Prerequisite: See AP and Honors Requirements)

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 Designation Available - See AP and Honors Requirements)

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 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 expected to participate orally every class period in Spanish.

(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 participate orally every class period and 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, trigonometric functions and identities, triangular applications, and, if time allows, an introduction to conic sections.

(Prerequisite: Algebra II)

AP PreCalculus (Full Year)

AP 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, See AP and Honors Requirements)

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.

(Not offered during the 2023-2024 school year)

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; and Momentum. 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)

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 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 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.

World History II: Global Cultures and Beliefs (Full Year)

This course explores the religious traditions, beliefs, and philosophies of a diverse range of cultures, with an emphasis on those with the most adherents in the modern world. Students will be expected to read primary sources in translation and discuss them in class and in writing. The goal is to appreciate what the various cultures of thought have in common, as well as what makes each one unique, and for students to be able to discuss them in a scholarly manner.

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 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.

(Prerequisite: Algebra II)

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.

(Prerequisite: Algebra II)

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

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.

U.S. and World Affairs (Semester)

This course will examine and discuss some of the major issues in our country and in our world today. For each topic, we will look at the history that shaped the current situation, identify the major people, organizations and/or countries involved, and discuss the relevance and importance of this topic and its potential long term impact, while also considering potential solutions and courses of action. The course will focus on current issues related to peace and conflict, nationalism and internationalism, world health, economic disparities, environmental changes, and human rights. Some of the course content will be dynamic, as we will be reacting and interpreting news stories and world events on a real time basis. This will require students to read and watch the news, build perspectives and opinions from a myriad of sources, and formulate their points of view. The class will cultivate critical thinking and put heavy emphasis on class participation, presentations, and group work.

World Geography (Semester)

The 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.

COMPUTER SCIENCE

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.

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.

Engineering I/II (Semester)

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 (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.

(Prerequisites: JavaScript I and II)

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.

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.

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

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.

(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)

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. This hands-on program will help students develop and strengthen their creative, communication, research, problem-solving, and conceptualization skills.

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)

Visual Communication (Semester)

This course will teach students photography, videography, and design. Photography will cover camera operation, composition, and editing -- DSLR cameras and mobile devices will be used. Videography will focus on sound and storytelling. Design will emphasize how to communicate clearly using artwork, images, and text. Project examples include: logos, posters, and presentations.

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.

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 Business and Marketing (Semester)*Business Elective*

Interested in the dynamic areas of business and marketing? Business and marketing is an exciting industry and many jobs in the country deal with some aspect of marketing! In this course, you will explore the intriguing world of business and of marketing through many “hands-on” projects. Topics will include, but are not limited to, college and amateur sports, professional sports, public images, marketing entertainment, marketing plans, promotional planning, and legal issues. We will also design a store and learn the basics. The activities in this course will help students to develop critical thinking, decision making, and communication skills. Speakers, current events, commercials, videos, teamwork, and simulations will be utilized. This course is recommended for any student who is considering a career in Business, Marketing, Sports and Entertainment, or Public Relations.