

UPPER CREST SCHOOL



# UPPER SCHOOL CURRICULUM GUIDE

2023-24

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Please note that elective courses listed will only be offered if there is sufficient student interest.

## GRADUATION REQUIREMENTS

Upper School students may receive a diploma by completing four years of secondary education, of which at least the senior year must be at the School. All academic courses taken during all four years must be successfully completed. Seniors who fail a core course for graduation must attend summer school at Pine Crest prior to receiving a diploma. At least 24 credits must be earned during the four years, grades nine through twelve, and the following minimum requirements met:

REQUIREMENT	CREDIT HOURS
English	Four credits in Upper School
Mathematics	Four credits in Upper School
World Languages	Three credits over three years in the same language in the Upper School, four years recommended
Science	Three credits, two of which will be chemistry and biology; four years recommended
Social Sciences	Three credits over three years, including a Global History course, United States History, and one elective course
Humanities	One-half credit fulfilled by the required course for freshmen, Great Decisions, Character, and Consequences
Arts	One credit from Digital Media, Performing, or Visual Arts
Physical Education	One credit (two semesters)
Health	One-half credit
Electives	Four credits of electives; electives may be course work beyond the core subject requirements and/or additional fine/performing arts coursework

# ENGLISH

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*The Pine Crest English curriculum fosters the development of accomplished readers, writers, and thinkers in collegial settings through student-centered learning. As a department, teachers design classes where students engage in becoming skilled readers of fiction, poetry, nonfiction, and plays, and in becoming writers who compose for a variety of purposes. Our classes provide an environment for lively discussions, research, and writing, all of which deepen our students' understanding of literature. The fundamental assumption is that by working with language, literature, and ideas in a dynamic fashion, our students will develop their abilities not only to communicate but also to think and reason critically, making them more aware of the multiple aspects of communication in a complex world. The courses in our required sequence are differentiated by the complexity and sophistication in the writing expectations and in the reading. All students enrolled in AP courses will take the AP Examinations for those courses.*

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## **GRADE 9 OFFERINGS:**

### **ENGLISH I HONORS**

FULL YEAR – ONE CREDIT

English Honors is designed to develop students' abilities to think, organize, and express ideas clearly and effectively through the study of world literature. Students learn to identify aspects of genre and style as they study works of world, British, and American literature and genres such as verse plays and tragedy along with poetic forms and creative nonfiction forms. In the process of reading works like *Antigone*, *Julius Caesar*, *Old Man and the Sea*, *Night*, *Purple Hibiscus*, *The Secret Life of Bees*, and *"Master Harold"...and the boys*, students explore how some canonical works converse with contemporary literature and critical perspectives. Through varied voices and perspectives, students examine thematic questions in these works as they practice analytical skills in their reading, class discussion, close reading exercises of fiction and nonfiction, critical essays, and assessments. Numerous in-class writing activities are required in addition to formal essays written both inside and outside of class. Vocabulary exercises focus on learning words in context and understanding etymology. Students also learn to identify grammatical features of sentences and sentence structure, and they practice punctuation skills that will help them become better editors of their own writing in the Upper School and beyond.

## **GRADE 10 OFFERINGS:**

### **ENGLISH II HONORS**

FULL YEAR – ONE CREDIT

English II Honors is designed for students to survey American literature from William Bradford to John Updike with special interest in the development of American language culture and history. With works like *The Scarlet Letter*, *Walden*, *The Awakening*, *Where the Crawdads Sing*, *Of Mice and Men*, *Fences*, *Streetcar Named Desire*, *The Glass Menagerie* and *The Sweet Hereafter*, a survey of American Poetry and historical criticism, students strengthen their understanding of

argument and analysis. Literary analysis, advanced composition, reading comprehension drills, and Modern Language Association (MLA) research are correlated with the Social Science curriculum. Writing assignments in the honors class require greater independence of thought and are designed to equip students with the fundamental skills of analysis, synthesis, revision, and research needed to succeed in the AP English Language and Composition course. Students work extensively on timed expository and persuasive essays with a focus on development of voice in their writing. Vocabulary exercises involve learning words in context and understanding etymology.

*Prerequisite: English I Honors*

## **ENGLISH LANGUAGE AND COMPOSITION AP**

FULL YEAR – ONE CREDIT

AP English Language and Composition is a college-level course that engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts, and in becoming accomplished writers who compose for a variety of purposes. During the year, students study several modes of discourse including letters, speeches, essays, biographies, newspaper articles, literary criticism, legal documents, and academic research. They gain experience both responding to and writing personal, argumentative, expository, and analytical prose. Authors studied range from classical essayists such as Francis Bacon and John Milton to contemporary literary journalists including E. B. White, Richard Rodriguez, and Joan Didion. Although the course is largely nonfiction based, it encompasses selected readings from fictional literature like *The Scarlet Letter*, *Catcher in the Rye*, *The Things They Carry*, *Streetcar Named Desire*, *I Know Why the Caged Bird Sings*, *Where the Crawdads Sing*, and *Their Eyes are Watching God*. Students also emerge from this course conversant in a variety of state, local, and international current-events issues.

*Prerequisite: English I Honors and Dean/Department Approval*

## **GRADE 11 OFFERINGS:**

### **ENGLISH LANGUAGE AND COMPOSITION AP**

FULL YEAR – ONE CREDIT

AP English Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts, and in becoming accomplished writers who compose for a variety of purposes. During the year, students study modes of discourse including letters, speeches, essays, biographies, newspaper articles, literary criticism, legal documents, and academic research. They gain experience both responding to and writing personal, argumentative, expository, and analytical prose. Authors studied range from classical essayists such as Francis Bacon and Michel de Montaigne to contemporary literary journalists including Tom Wolfe, Joan Didion, Ta-Nehesi Coates, and N. Scott Momaday. Although the course is largely nonfiction-based, it encompasses selected readings from fictional literature like *Beowulf*, *Macbeth*, *Frankenstein*, *The Importance of Being Earnest*, and *Death and the King's Horseman*. Students also emerge from this course conversant in a variety of state, local, and international current-events issues. *Prerequisite: English II Honors*

## **ENGLISH LITERATURE AND COMPOSITION AP**

FULL YEAR – ONE CREDIT

AP English Literature and Composition eleventh grade provides a survey of British literature from Old English to Shakespeare to the 20th century, including literary movements such as romanticism and modernism. Students will also be exposed to diverse contemporary authors who revise and/or reinterpret these canonical texts. Students read poems, stories, plays, and novels, as well as works of criticism that shed light on not only the artistry but also the historical contexts of these works of fiction. Through discussions and presentations, students offer analyses of a literary work's formal elements and develop interpretations of its possible meanings. Students formally demonstrate knowledge and understanding of literary works through essays, many of which are timed in order to simulate the demands of the AP exam. These essays require students to show mastery of the literary concepts they have learned in previous English courses and the concepts they will learn in this course. These essays also require students to show command of the English language (diction, syntax, grammar) and academic convention (MLA).

*Prerequisite: English Language and Composition AP and Dean/Department Approval*

## **GRADE 12 OFFERINGS:**

### **ENGLISH LITERATURE AND COMPOSITION AP**

FULL YEAR – ONE CREDIT

AP English Literature and Composition twelfth grade begins with nonfiction and the personal essay, and then provides a thematic study of all genres of British, American, and world literature tracing drama from Greek theater's Oedipus Rex and Elizabethan theater's Othello to modern drama's Doll House and 20th century American theater's Death of a Salesman; and tracing short and long fiction from Camus' *The Stranger* and Kafka's *Metamorphosis* to an array of student-chosen titles from modernist and contemporary writers like Leo Tolstoy, Henry James, James Joyce, Toni Morrison, Kazuo Ishiguro, and Emily St. John Mandel. Students read poems, stories, plays, and novels, as well as works of criticism that shed light on not only the artistry but also the historical contexts of these works of fiction. Through discussions and presentations, students offer analyses of a literary work's formal elements and develop interpretations of its possible meanings. Students formally demonstrate knowledge and understanding of literary works through essays, many of which are timed in order to simulate the demands of the AP exam. These essays require students to show mastery of the literary concepts they have learned in previous English courses and the concepts they will learn in this course. These essays also require students to show command of the English language (diction, syntax, grammar) and academic convention (MLA).

*Prerequisite: English Language and Composition AP*

## **POST-AP SEMINAR COURSES**

FULL YEAR – ONE CREDIT

The English Department offers a variety of Post-AP Seminar courses to seniors who have successfully completed AP English Language and Composition and AP English Literature and Composition. These Post-AP Seminar courses give students the opportunity to do intensive work

in a particular area of interest with a teacher who has expertise in that area. All Post-AP Seminars are devoted to helping students perfect skills in critical reading and writing and discover their own style. Course offerings represent not only a range of historical periods and genres, ancient to modern, but also seminal writers and representative works from major periods and movements in English, American, and World Literature. Course offerings will vary year to year. Some examples of previous and current courses include American Women Writers of the 20th Century, Contemporary Fiction, Contemporary Nonfiction, On the Fringe: Marginalized Voices in Literature, Shakespeare, and World Mythology and Modern Reinterpretations.

### **AMERICAN WOMEN WRITERS OF THE 20TH CENTURY POST-AP**

FULL YEAR - ONE CREDIT

In America, the 20th century saw sweeping changes in the roles, behaviors, and expressions of women. Nowhere is this phenomenon more well-documented than in the collective narratives of American women writers from various racial, geographical, social, and economic backgrounds. Through multiple genres, stories of female resistance manifest themselves in works of fiction and drama such as Susan Glaspell's *Trifles*, Paula Vogel's *How I Learned to Drive*, Alice Walker's *The Color Purple*, and Bharati Mukherjee's *Jasmine*. Additionally, poets like Sylvia Plath, Audre Lorde, Gwendolyn Brooks, and nonfiction writers such as Maxine Hong-Kingston, Amy Tan, and Jamaica Kincaid, give voice to emerging articulations of the female self in the 20th century. We will also use theory from feminist critics such as Elaine Showalter, Luce Irigaray, bell hooks, Sandra Gilbert, and Susan Gubar to interrogate these rich and layered texts by women writers. Through guided readings, research presentations, Socratic seminars, and analytical writings, students will examine, analyze, and critique bold and daring narratives of the complex and multidimensional American female experience in the 20th century.

*Prerequisite: English Language AP and English Literature AP*

### **CONTEMPORARY FICTION POST-AP**

FULL YEAR - ONE CREDIT

This Post-AP Advanced Seminar focuses on contemporary authors from around the world. Readings focus on fiction and critical responses to literature from post-World War II to the present day. The course addresses social and cultural issues, as well as questions of identity in a rapidly changing global society. In addition to collaborative discussion, the course includes extended independent research, projects, and presentations. Readings include Allende's *The House of the Spirits*, Beckett's *Waiting for Godot*, McDonagh's *The Beauty Queen of Leenane*, Satrapi's *The Complete Persepolis*, Fowles' *The Collector* and Donoghue's *Room*, as well as Adichie's *The Thing Around Your Neck*, Atwood's *The Handmaid's Tale*, McCarthy's *The Road*, Herrera's *Signs Preceding the End of the World*, and Moore's *Watchman*. Modifications to the planned curriculum may occur to meet students' interests and academic needs with additions from authors like Tom Stoppard, Kazuo Ishiguro, Salman Rushdie, Thomas Pynchon, and Toni Morrison.

*Prerequisite: English Language AP and English Literature AP*

## **CONTEMPORARY NONFICTION POST-AP**

FULL YEAR - ONE CREDIT

Post-AP Contemporary Nonfiction begins with students identifying the various types of nonfiction and defining what that term means. Students will read examples of the different kinds, from histories to journalism to memoirs to interviews to academic writing to sociology and others. The readings will also address a multitude of subjects relevant to students' lives and to the society in which we live, whether those topics be on the environment, technology, the media, social issues, or popular culture, among others. Part of the scope of the course will be to study what the genre can do that other genres cannot, and how nonfiction writers use some of the same techniques novelists and poets do to convey information and inspire emotions. Students compose essays of their own that model some of the essays they read. Because of the eclectic nature of the genre, there is no textbook. Instead, students will read texts from a multitude of sources, from journalism from the 1920s to recent essays published in *The Atlantic Monthly*. They will read works by notable authors, such as James Baldwin and Amy Tan, and those from writers who are not as established. Students will also choose articles for the class to read and conduct Harkness discussions.

*Prerequisite: English Language AP and English Literature AP*

## **ON THE FRINGE: MARGINALIZED VOICES IN LITERATURE POST-AP**

FULL YEAR - ONE CREDIT

The course will introduce students to literature written by or about those most marginalized. Readings will include short stories, essays, novel excerpts, and poems by authors from marginalized communities. Texts may include authors and stories from those most marginalized including but not limited to writers/stories about people of color, of native heritage, with disabilities and/or illness, from low socioeconomic backgrounds and or/homeless, who have experienced incarceration, identify as LGBTQIA, or have experienced exile or displacement.

*Prerequisite: English Language AP and English Literature AP*

## **SHAKESPEARE POST-AP**

FULL YEAR – ONE CREDIT

This course explores the phenomenon of the canon of William Shakespeare on stage and in film. The first semester focuses on Shakespeare, the playwright; therefore, the emphasis of the textual analysis will be on the rhetorical strategies employed in the play in conjunction with the play's dramatic structure. Students will spend some time researching critical interpretations and each play's cultural history to help us make decisions about how to stage or film the work. But, the primary focus will be on the text as a blueprint for performance. Students will explore poetry and rhythm, imagery, and structure and will make use of tools such as scansion to understand the verse. Students will examine each scene from a theatrical and/or film point of view, exploring structure, action, events, reversals, and ways of staging/filming that will bring it to life. The second semester focuses entirely on a full-scale film production of a Shakespearean play reinvented. This will allow students a project-based learning approach to the actualization of a text in a different cultural and historical moment. In addition, students will consider authorship, adaptation,

the role of Shakespeare in contemporary film/stage (specifically the politics of race and gender), and how film becomes a compelling medium to tell the same story.

*Prerequisite: English Language AP and English Literature AP*

## **WORLD MYTHOLOGY AND MODERN REINTERPRETATIONS POST-AP**

FULL YEAR – ONE CREDIT

This Post-AP seminar will examine classical texts from the ancient world alongside modern reinterpretations of these classic myths, as well as delving into a comparative study of mythology from cultures around the world. An introduction to the commonalities and differences in myths about creation, gods and goddesses, and heroes will lay the groundwork for a study of ancient texts and modern versions of these seminal stories. For example, after analysis of Homer's *Iliad*, we will examine modern retellings like Pat Barker's *The Silence of the Girls* and Madeline Miller's *The Song of Achilles*. Students will also have the chance to explore further works of their choice and to formulate independent conclusions about these works based on their own research and analysis.

*Prerequisite: English Language AP and English Literature AP*

## **ENGLISH ELECTIVES:**

### **TALENTED WRITERS PROGRAM (TWP)**

The Talented Writers Program (TWP) is a signature program offered by the Pine Crest English Department catering to students who have a passion for creative writing and the desire to learn the craft through a three-year sequence of Advanced Writing Workshops beginning sophomore year. The workshop uses a pedagogy that draws inspiration from the artist studio, in which students who are practicing their craft share their works-in-progress openly in a safe and supportive space in order to receive feedback from peers with an eye toward revision. Over the course of the program, students will be expected to attend workshops and conferences outside of Pine Crest, submit work to journals and/or competitions, help publish the school literary magazine, *The Scribbler*, and promote creative writing on campus in other ways. Students will be expected to write work outside of the workshop framework and will meet individually with the teacher to go over that work. Each year an established poet will visit Pine Crest and meet with TWP classes.

### **TALENTED WRITERS PROGRAM I**

FULL YEAR – ONE CREDIT

In Year 1, students will focus on poetry and fiction, especially on formal considerations of the genres, while learning the process and value of feedback and critique. Students will also read contemporary poets and authors as models for their own writing and to get a sense of what developing a voice entails. This is an honors level course.

*Prerequisite: English I H; Application and Approval*

## **TALENTED WRITERS PROGRAM II**

FULL YEAR – ONE CREDIT

In Year 2, students will continue their exploration of genre and the possibilities the different ones offer and the ways in which they can influence one another. Further focus will be on voice and style, how to offer critiques, and refining revision skills. Study of contemporary poets and writers as models will continue. This is an honors level course.

*Prerequisite: Talented Writers I*

## **TALENTED WRITERS PROGRAM III**

FULL YEAR – ONE CREDIT

In Year 3 of TWP, students will focus on building their portfolios, while reflecting on the entirety of their oeuvre. They will be introduced to the genre of creative nonfiction and explore both that genre on its own and also how it can influence their other creative writing. Study of contemporary poets and writers as models will continue. Finally, there will be a focus on experimental forms and genre-blending work in this final year of the program. This is an honors level course.

*Prerequisite: Talented Writers II*

## MATHEMATICS/COMPUTER SCIENCE

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*At its core, mathematics is the study of patterns and relationships. Its elegance stems from fundamental mathematical principles and extends logically to more complex investigations of real-world phenomena. The department aims to inspire its students with an appreciation for mathematical analysis. The curriculum builds both vertically and horizontally in terms of skills and applications. The flexible yet rigorous curriculum is individually tailored to accommodate each student's unique talents and goals. Using a variety of pedagogical approaches that merge time-tested methods with modern technological enhancements, teachers provide an effective learning experience. Students gradually acquire the skills and intuition necessary to solve problems, analyze data, manipulate graphs, and reason abstractly.*

*Computer science courses are designed to teach high-level logic and problem-solving skills that prepare students for successful entry into the technological and/or scientific environments of academia and work. The department is dedicated to providing a state-of-the-art curriculum in an ever-evolving discipline.*

*All students enrolled in Advanced Placement courses will take the Advanced Placement Examinations for those courses.*

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### **MATHEMATICS**

#### **GEOMETRY**

FULL YEAR – ONE CREDIT

Geometry provides students with their first learning experience involving a formal theorem-based mathematical system. Topics will include, but not be limited to the study of the 2-D and 3-D Euclidean geometry of lines, planes, triangles, similarity, congruence, geometric inequalities, polygons, circles, areas, volumes, transformations, and symmetry in the context of coordinate geometry, and fundamental right triangle trigonometry. Students develop skills in deductive and inductive analytical thinking with an emphasis placed on problem-solving and justifying solutions by using key geometric theorems, postulates, and definitions. Algebraic skills the previous school year continue to be reinforced throughout this course, specifically emphasizing factoring, solving linear equations, and systems of linear equations. Successful completion of this course prepares students for Precalculus.

*Prerequisite: Algebra I*

#### **GEOMETRY HONORS**

FULL YEAR – ONE CREDIT

Geometry Honors focuses on building student understanding of essential geometric principles while developing deductive and inductive reasoning and analytical skills. This course provides students with their first learning experience involving a formal theorem-based mathematical system. Students develop reasoning skills to create formal mathematical proofs that justify

conclusions based on geometric theorems, postulates, and definitions. Topics in this course include, but are not limited to, the study of the 2-D and 3-D Euclidean geometry of lines, planes, triangles, similarity, congruence, geometric inequalities, polygons, circles, areas, volumes, transformations, symmetry, and trigonometry. These algebraic topics include but are not limited to factoring, solving equations, inequalities, systems of equations, and systems of inequalities. Students also continue their understanding of introductory trigonometry extending into non-right triangle trigonometry.

*Prerequisite: Algebra I Honors; Dean/Department Approval*

## **ALGEBRA II**

FULL YEAR – ONE CREDIT

Algebra II is designed to build upon the algebraic and geometric concepts learned in previous mathematical studies. Students expand their abilities to model and analyze authentic situations and solve equations and systems of equations that include quadratic, polynomial, radical, exponential, logarithmic, absolute value, and rational functions. Number systems are expanded to the set of complex numbers. Additionally, students are introduced to fundamental principles of sequences and series, conic sections, and probability and statistics. Students are challenged to investigate authentic applications of algebraic concepts through projects and open-ended problems. A graphing utility is required for this course for exploratory and discovery purposes.

*Prerequisite: Geometry*

## **ALGEBRA II HONORS**

FULL YEAR – ONE CREDIT

Algebra II Honors is a rigorous course designed to build upon algebraic and geometric concepts learned in previous mathematics courses. Students learn how to approach their algebraic explorations from a numerical, analytical, and graphical approach to interpret behaviors of functions. Emphasis is placed on the theory, application, and modeling of linear, absolute value, quadratic, polynomial, rational, radical, exponential, and logarithmic functions. Additional topics covered in this course include matrices, conic sections, sequences and series, probability, statistical analysis, and foundations of trigonometry. Students further develop their creative problem-solving skills, while fostering critical thinking and mathematical analysis in the context of authentic applications. The use of a graphing utility is essential for exploratory modeling.

*Prerequisite: Geometry Honors; Dean/Department Approval*

## **PRECALCULUS**

FULL YEAR – ONE CREDIT

Precalculus is an extension of students' previous knowledge of real and complex number systems. This course provides a comprehensive study of advanced topics in algebra, including graphing and solving algebraic equations and systems of equations involving exponential, logarithmic, polynomial, and rational functions, emphasizing analyzing transformations of functions. Students also explore fundamental trigonometric functions from an analytical,

graphical, and applied approach. Additional topics covered in this curriculum include sequences and series, and conic sections. Students explore specific topics with the use of a graphing utility.

*Prerequisite: Geometry and Algebra II*

## **PRECALCULUS HONORS**

FULL YEAR – ONE CREDIT

Precalculus Honors is essential in preparing students for their future studies in calculus. Students learn how to study functions analytically, graphically, and numerically. A thorough analysis of functions includes symmetry, transformations, compositions, and finding inverses of functions. Rational functions are explored from an analytical and graphical approach, with emphasis placed on asymptotic behavior within the context of limits. Trigonometry is covered through a graphical, analytical, and applied approach for all trigonometric and inverse trigonometric functions. Additional topics covered in this curriculum include, but are not limited to, sequences and series, vectors and their applications, analytic geometry (conic sections, polar equations and their graphs, parametric equations), logarithmic and exponential functions, and an introduction to limits. Topics in this course are explored with and without the use of a graphing utility.

*Prerequisite: Geometry Honors and Algebra II Honors with an Emphasis on the Algebra II Honors Grade, Dean/Department Approval*

## **CALCULUS I HONORS**

FULL YEAR – ONE CREDIT

Calculus I Honors reinforces topics learned in Precalculus and covers the fundamentals of calculus, ranging from differential calculus through integral calculus. Specific topics include but are not limited to the analysis of functions and their graphs through limits, asymptotic behavior, and continuity. Differential calculus includes techniques of differentiation and using first and second derivatives to analyze the behaviors of functions. Students engage in project-based learning to solidify their understanding of applied calculus. Integral calculus includes techniques of integration, finding definite and indefinite integrals, as well as applications of integration. Methods of approximation, specifically Riemann Sums, are also explored in this course. The use of graphing technology is incorporated to support the graphical analysis of the behavior of functions.

*Prerequisite: Precalculus*

## **MATHEMATICS AP COURSES**

### **STATISTICS AP**

FULL YEAR – ONE CREDIT

The AP Statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. AP Statistics topics are divided into four major themes: exploratory data analysis, observational studies and experiments, exploratory study of random phenomena using probability and simulation, and statistical inference. Students explore challenging topics through tactile activities that promote the observation of random behaviors. Technology, such as a graphing calculator, internet applets, and computer software aid in

demonstrating inference for proportions, conditions for inference, probability (e.g., the Law of Large Numbers), sampling distributions, the central limit theorem, and many other topics. Course projects and investigative tasks encourage proper data gathering techniques, analysis, and communication of interpreted results using appropriate statistical terms.

*Prerequisite: Precalculus*

## **CALCULUS AB AP**

FULL YEAR – ONE CREDIT

AP Calculus AB is a comprehensive study of differential and integral calculus detailed in the College Board's Advanced Placement Calculus AB Course Description. Students explore the application of calculus concepts by analyzing functions graphically, numerically, analytically, and verbally. The three major topics of study in this course include but are not limited to the analysis of functions, differential calculus, and integral calculus. The analysis of functions and their graphs investigates limits (including one-sided limits), asymptotic and unbounded behavior, and continuity as a property of functions. The study of differential calculus includes the concept of the derivative, techniques, and computation of differentiation, the derivative at a point, the derivative as a function, second derivatives, and applications of derivatives. Integral calculus includes techniques of integration, interpretations, and properties of definite and indefinite integrals, applications of integrals, the Fundamental Theorem of Calculus, numerical approximations to integrals (Riemann Sums, Trapezoidal Sums, and Trapezoidal Rule), and slope fields. Unifying themes are incorporated to bring these topics together as an interconnected whole. The use of graphing technology is essential to the explorations and analysis of the topics in this course.

*Prerequisite: Precalculus Honors; Dean/Department Approval*

## **CALCULUS BC AP**

FULL YEAR – ONE CREDIT

AP Calculus BC is the continuation of the study of calculus after having successfully completed AP Calculus AB. Students learn about concepts related to functions and planar curves by analyzing these curves graphically, numerically, analytically, and verbally. Topics in this course include, but are not limited to the continued study of limits using L'Hôpital's Rule, analysis of planar curves (area, arc length, and surface area of solids of revolution) in parametric, vector, and polar form, differentiation, and applications of derivatives, and differential equations including the logistic model of population growth and decay. Techniques of antidifferentiation are expanded upon, specifically including integration by parts, partial fractions, and improper integrals. Also included are applications of antidifferentiation and numerical approximations, including Euler's Method. Students also learn about the convergence and divergence of infinite series and polynomial approximations and series, including Taylor and Maclaurin series. The use of graphing technology is essential to this course for exploratory and analytical purposes.

*Prerequisite: Calculus AB AP*

## **MATHEMATICS POST-AP SEMINAR COURSES**

### **MULTIVARIABLE CALCULUS POST-AP**

FULL YEAR – ONE CREDIT

Multivariable Calculus is an advanced study of calculus techniques to solve problems involving more than one variable. Topics covered during the first semester of the Post-AP course include, but are not limited to, defining and using vectors in a plane and in space, developing and applying cylindrical and spherical coordinate systems to solve problems, using vector-valued functions to solve problems in a context of physics, and determining limits and continuity of functions in several variables. The second semester of this course focuses on finding partial derivatives, solving constrained optimization problems, defining and computing double and triple integrals, applying the change of variables formula, vector fields, conservative fields, and Green and Stokes' Theorems. The use of a graphing utility is incorporated into this course for exploratory purposes.

*Prerequisite: Calculus BC AP*

## **COMPUTER SCIENCE AP COURSES**

### **COMPUTER SCIENCE PRINCIPLES AP**

FULL YEAR - ONE CREDIT

The Computer Science Principles AP course introduces students to the essential ideas of computer science and helps them understand how computing and technology can influence the world around them. As part of this course, students acquire tools and skills to implement abstraction with programs and use data to discover new knowledge. In addition, students pursue their interests in digital projects, such as apps, films, games, and music, showcasing their creativity. Students also learn about computing innovations and systems, and their potential impact on a collaborative and ethical computing culture. The primary coding language used for the programming portion of this course is Javascript.

*Prerequisite: Dean/Department Approval*

### **COMPUTER SCIENCE A AP**

FULL YEAR – ONE CREDIT

AP Computer Science A emphasizes problem-solving through object-oriented programming in the Java language, design strategies and methodologies, data structures, and algorithms. Topics in this course include, but are not limited to, program design, implementation, and analysis of commonly used algorithms and data structures, as well as testing and debugging solutions utilizing standard Java library classes and interfaces. Students implement programs consisting of several classes and interacting objects, read and understand a description of the design and development process leading to such programs, and understand the ethical and social implications of computer use. Advanced topics include encapsulation, inheritance and composition, strings, static arrays in 1- and 2-D, ArrayLists, Boolean Logic, control structures, polymorphism, redefining methods, recursion, and sorting and searching algorithm analysis. All

students participate in the American Computer Science League competition as well as other computer science tournaments.

*Prerequisite: Dean/Department Approval*

## **COMPUTER SCIENCE POST-AP SEMINAR COURSES**

### **DATA STRUCTURES POST-AP**

FULL YEAR - ONE CREDIT

Data Structures and Algorithms offers students the opportunity to further their study of object-oriented programming techniques in Java through the use and implementation of data structures, analysis of algorithm complexities, design of recursive solutions, and by representing and solving problems using graph algorithms. Some classic data structures covered in this course are arraylists, linked lists, stacks, queues, hash tables, sets, maps, trees, graphs, and heaps. Topics included are exception handling, text, and binary file I/O; parameterizing data types using generics; designing recursive solutions; the Java Collections Framework to develop applications; measuring algorithm complexities using Big O notation; using and implementing data structures; and representing and solving problems using graph algorithms. Students in this course participate in the national American Computer Science League competition.

*Prerequisite: Computer Science A AP; Dean/Department Approval*

### **ARTIFICIAL INTELLIGENCE POST-AP**

FULL YEAR - ONE CREDIT

Artificial Intelligence (AI) Post-AP is the study of agents that perceive their environment and perform actions to optimize their chances of successfully attaining a defined objective. This Post-AP course aims to introduce concepts and methods essential to intelligent computer systems in various contexts. Topics in this course include graphs, search algorithms, heuristics, recursion, pruning, constraint solvers, and games. Additional topics include natural language processing, logical reasoning and planning, probabilistic reasoning and decision-making, automated planning, machine learning, natural net learning, and backpropagation. The primary programming languages utilized in this course are Java and Python.

*Prerequisite: Data Structures Post AP; Dean/Department Approval*

## SCIENCE

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The Science department embraces a philosophy of learning by doing. As students gather their own observations and data, they are able to hone their critical thinking skills to help them develop models that explain what they are seeing. Hands-on experimentation is at the core of each course, allowing students to experience science as a process. Strong emphasis is placed on mastering a conceptual understanding of topics addressed in each course, and the application of knowledge to novel problem solving. Cross-cutting concepts such as energy, matter, patterns, and systems are introduced and built on as students progress through their science courses, enabling them to make deep interdisciplinary connections. All students enrolled in AP courses will take the AP examinations for those courses.

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### **BIOLOGY**

FULL YEAR – SIX PERIODS PER WEEK - ONE CREDIT

Biology is a developmental laboratory course that provides students with an underlying foundation in the six unifying principles. These principles are evolution of populations, cell structure and function, homeostasis, energy, matter, and organization, genes and heredity, and interdependence of ecological systems. The course emphasizes active investigation of all of the above stated principles through application and a great variety of hands-on approaches. The course seeks to engender critical thinking skills and problem-solving experiences, and to teach students how to apply prior knowledge to new concepts and problems they are challenged within and out of the classroom. Students develop skills and learn through discovery in the lab with an emphasis on investigation and technology.

*Prerequisite: Chemistry*

### **BIOLOGY HONORS**

FULL YEAR – SIX PERIODS PER WEEK - ONE CREDIT

Biology Honors is a comprehensive examination of the unifying principles of biology from a molecular perspective. Major themes include evolutionary theory, cellular organization and function, homeostasis, continuity with a particular emphasis on molecular genetics and technology, and ecological interdependence. Laboratory and classwork encourage the practice of applying the process of scientific inquiry and opportunities for students to demonstrate their conceptual understanding. All levels of inquiry and science practice skills will be used by students on a regular basis in formal labs as well as activities outside of the lab experience. The course will provide opportunities for students to develop, record, and communicate the results of their laboratory investigations. Problem-solving, requiring strong critical thinking skills, encourages students to apply biological knowledge to novel situations. A foundation in chemistry, including atomic structure, bonding, and chemical reactions, is additive as students explore the biochemical relationships inherent in biological structures and their function in this course.

*Prerequisite: Chemistry; Dean/Department Approval*

## **CHEMISTRY**

FULL YEAR – SIX PERIODS PER WEEK - ONE CREDIT

Chemistry introduces the science of the composition, structure, properties, and reactions of matter, especially of atoms and molecules. Emphasis is placed on critical thinking skills with a focus on a deeper understanding of content, which is learned in class and applied in the laboratory. Students learn to analyze information and provide reasonable explanations for observed changes in matter and for the energy changes that accompany the changes in the structure of matter. There is one double period each week for laboratory experiences. Laboratory experiences supplement and reinforce skills learned in the classroom setting. Students are expected to master the skill of unit analysis; therefore, basic algebra skills are necessary for successful completion of this course. Topics include: describing matter, development of the atom, classification and naming compounds, chemical bonds, chemical reactions, electrochemistry, stoichiometry, solution chemistry, gas laws, thermochemistry, and acids and bases.

## **CHEMISTRY HONORS**

FULL YEAR – SIX PERIODS PER WEEK - ONE CREDIT

Chemistry Honors is an intensive study of the composition, structure, properties, and reactions of matter with a strong focus on the application of concepts to solve novel problems. A firm basis of algebra skills and strong independent study habits are important for the mastery of course material. Students develop their understanding of matter through a variety of hands-on laboratory experiences, collaborative group work, and classroom discussion. The importance of evidence-based reasoning is consistently reinforced as students work to make connections between laboratory observations and their conceptual understanding. Topics addressed include atomic theory, classifying and quantifying matter, describing and predicting chemical reactions, how structure affects the properties of matter, energy involved in physical and chemical change, chemistry of solutions, properties of gases, and acidic and basic solutions. There is one double period each week for laboratory experiences. Mastery of this course prepares students for the rigor of AP Chemistry.

*Prerequisite: Geometry H (Co-Enrolled); Dean/Department Approval*

## **SCIENCE AP COURSES**

### **BIOLOGY AP**

FULL YEAR – SEVEN OR EIGHT PERIODS PER WEEK – ONE CREDIT

Biology AP is designed to offer students a solid foundation in introductory college-level biology. By structuring the course around the four big ideas, enduring understandings, and science practices, it assists students in developing an appreciation for the study of life and helps them identify and understand unifying principles within a diversified biological world. What we know today about biology is a result of inquiry. Science is a way of knowing. Therefore, the process of inquiry in science and developing critical thinking skills is the most important part of this course. At the end of the course, students will have an awareness of how the study of biology integrates with other sciences, how the species to which we belong is both similar and different from other species, and how to be knowledgeable and responsible citizens in understanding biological

issues that could potentially impact their lives. Laboratory work teaches the process of science and encourages independent and critical thinking. Students spend a minimum of 60 hours doing laboratory work. Some of the investigations are independent and long term, including a six-week investigation of fruit fly genetics.

*Prerequisite: Biology or Chemistry AP; Dean/Department Approval*

## **CHEMISTRY AP**

*FULL YEAR – SEVEN OR EIGHT PERIODS PER WEEK – ONE CREDIT*

Chemistry AP is the equivalent of an introductory college course. It is an extended study of matter's composition, structure, properties, and reactions of matter, especially of atomic and molecular systems. Given the speed with which scientific discoveries and research continuously expand scientific knowledge, this course focuses on a model of instruction that promotes conceptual understanding and enables students to spend less time on factual recall and more time on inquiry-based learning of essential concepts. The emphasis is on thorough training in the fundamentals in order to develop each student's ability to solve novel problems. Students who take an AP Chemistry course will also develop advanced reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains. The result will be readiness for the study of advanced topics in subsequent college-level science courses.

*Prerequisite: Chemistry, Biology, Precalculus or co-enrolled in Precalculus Honors; Dean/Department Approval*

## **ENVIRONMENTAL SCIENCE AP**

*FULL YEAR – ONE CREDIT*

This course is a college-level applied science course. It is the equivalent of a one-semester introductory college course in environmental science. Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. As an interdisciplinary course, AP Environmental Science involves biology, chemistry, physics, geology, ecology, economics, political science, and mathematics. The course introduces students to the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze natural and human-made environmental problems, and to examine alternative solutions to solving or preventing them. Topics to be covered include the structure and function of ecosystems, population dynamics, climate, water resources, mineral and soil resources, waste reduction and prevention, global food resources, biodiversity, energy resources, and environmental economics and politics. Laboratory work includes field work on water and soil quality, plant and animal population studies, local environmental monitoring, and citizen science. Students will be expected to collect and analyze data from field and laboratory investigations as well as to design their own investigations and interpret results.

*Prerequisite: Grade Ten Standing; Dean/Department Approval*

## **PHYSICS I AP**

FULL YEAR – SEVEN OR EIGHT PERIODS PER WEEK – ONE CREDIT

Physics I AP is the equivalent of one college semester of introductory, algebra-based college physics. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque, and rotational motion. The course is based on six big ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world. The course uses student-centered, inquiry-based instruction to foster deeper conceptual understanding and mastery of foundational physics principles while engaging in science practices. Students engage in collaborative problem-solving using a web-based platform. Laboratory experiences supplement and reinforce skills learned in the classroom setting.

*Prerequisite: Precalculus (Co-Enrolled) or Dean/Department Approval*

## **PHYSICS C: ELECTRICITY, MAGNETISM, AND MECHANICS AP**

FULL YEAR – SEVEN OR EIGHT PERIODS PER WEEK – ONE CREDIT

Physics C is a college-level, calculus-based study of introductory classical mechanics, electricity, and magnetism. Students learn to apply methods of differential and integral calculus in order to formulate physical principles associated with these concepts. The course provides students with a clear understanding of the basic principles of the physical world and the application of these principles to solve a wide variety of problems. Students build critical thinking skills as they design and conduct laboratory investigations to solve problems through first-hand observations, data collections, analysis, and interpretation. The mechanics portion of the course covers kinematics, Newton's laws of motion, work, energy and power systems of particles and linear momentum, circular motion and rotation, and oscillations and gravitation. The electricity and magnetism portion of the course builds upon the mechanics portion. Topics covered in this portion of the course include electrostatics, conductors, capacitors and dielectrics, electric circuits, magnetic fields, and electromagnetism. Students engage in collaborative, complex problem-solving using a web-based platform, and project-based learning using iLab resources.

*Prerequisite: Chemistry, Biology, Calculus AB, and Dean/Department Approval*

## **SCIENCE POST-AP SEMINAR COURSES**

### **ORGANIC CHEMISTRY POST-AP**

FULL YEAR – ONE CREDIT

Organic Chemistry Post-AP focuses on understanding the structure and reactivity of organic molecules. In this course, students will explore the important reaction mechanisms in organic chemistry and develop a better understanding of structure/reactivity relationships found in organic molecules of alkenes, alkynes, and alcohols to name a few. Emphasis is on substitution and elimination reactions, chemistry of selected functional groups, and an introduction to the chemistry of aromatic compounds. Students will gain an understanding of the complex organic synthesis design process and its application in the design of new molecules. Students will perform fundamental research techniques including crystallization, filtration, distillation,

extraction, thin-layer, and column chromatography. Students will also learn how to interpret spectroscopic data, including: mass, IR, <sup>1</sup>H NMR, and <sup>13</sup>C NMR spectra in identification of unknowns.

*Prerequisite: Chemistry AP; Dean/Department Approval*

## **GENETICS AND EVOLUTION POST-AP**

FULL YEAR – ONE CREDIT

Post-AP Biology is an introductory college-level biology course, with a particular emphasis on the morphology, systematics, genetics, and evolution of vertebrate and invertebrate animals. Students will cultivate their understanding of advanced biology topics through inquiry-based investigations as they explore the following themes: structure, physiology, development, evolution, genetics, behavior, and ecology. This course offers students an education in the life sciences with an emphasis on animal systems. Students will gain knowledge about the diversity of life (its evolution and significance) and about the structure of organisms and ecosystems and how they function (i.e., the acquisition, flow, organization, and uses of information, energy, and nutrients in living systems). This knowledge will be gained through direct laboratory experimentation, fieldwork, and independent research projects that are integrated with more formal coursework. Students will learn about the scientific method and how it facilitates the discovery of new knowledge in biology. This includes how to critically evaluate hypotheses and conclusions in science using verifiable data, and how to clearly and effectively communicate the major concepts and hypotheses in biology.

*Prerequisite: AP Biology, Application, Dean/Department Approval*

## **SCIENCE ELECTIVES:**

### **ANATOMY AND PHYSIOLOGY HONORS**

SEMESTER ONE AND TWO – ONE CREDIT

Anatomy and Physiology studies focus on the major human organ systems at the honors level. Dissections are an integral part of this course. Students use cutting-edge technology, including the Anatomage Table, which is an advanced anatomy visualization system. The course focuses upon activities and active learning experiences, with students obtaining mastery and understanding of the intricacies of the human body. The course encompasses the structure of specific cells, tissues, and organs, and their integrated function in maintaining homeostasis. Knowledge of biology and chemistry is instrumental in exploring the processes of metabolism, fluid and electrolyte balance, and development in maintaining homeostasis.

*Prerequisite: Biology (Co-Enrolled); Grade Ten Standing*

### **ASTRONOMY HONORS**

FULL YEAR – ONE CREDIT

Astronomy Honors is a dynamic laboratory course that emphasizes a broad range of astronomical, astrophysical, and cosmological processes. By combining inquiry-based labs, online resources, and real-time astronomical observations with classroom discussions, students explore both well-established and newly-revealed discoveries of the cosmos. Major areas of

study include the complex motions of the Earth, gravitation, the nature of light, optics and telescopes, manned and unmanned space missions, terrestrial and Jovian planets, asteroids, comets and meteoroids, the sun and stars, stellar evolution, galaxies, the Big Bang and early universe, extrasolar planets, extraterrestrial life, and the future of the universe. By the end of the course, students will be able to describe the relevance of astronomy, explain its major tenets, articulately expound the validity of accepted astronomical theories, distinguish between science and pseudoscience, critically analyze astronomic data and studies, and demonstrate a mastery of scientific inquiry.

*Prerequisites: Grade 10 Standing*

## **MARINE SCIENCE HONORS**

### **SEMESTER ONE AND TWO – ONE CREDIT**

Marine Science is the study of the oceans and the marine organisms on planet Earth at the honors level. Students will engage in a comprehensive tour of the major phyla and classes of marine organisms and their relationship within each of the major ocean ecosystems. The course includes a study of the physical, chemical, and geological aspects of oceanography, marine biology, the coastal environment, the human impact on ecosystems, and the interrelationships among the disciplines. Field trips and laboratory activities are an integral part of the course allowing students to engage in hands-on learning while investigating the living laboratory of the local coastal environment. Students engage in many group activities that vary in size to help develop communication and listening skills, the use of evidence to support ideas, and the respect for and understanding of differences in others.

*Prerequisite: Grade Ten Standing*

## **SCIENCE RESEARCH I**

### **FULL YEAR – ONE CREDIT**

Science Research I provides opportunities for highly motivated students to identify and develop skills and interests in various scientific disciplines. In the first year, students are introduced to a broad spectrum of scientific and engineering methods, develop a primary research problem or engineering design project, and investigate it through a comprehensive literature search and experimentation. Students are mentored and supported by faculty with expertise in the area of a student's interests. Research students actively read journal articles, design preliminary experiments, write research papers, present findings orally and in poster form, and submit research papers to the Junior Science and Engineering Symposium, the Florida Junior Academy of Science, and other research review venues. Science Research I is open to rising sophomores, and these students may continue in the research program for an additional two years. This is an honors-level course.

*Prerequisite: Grade Ten Standing, Application, Interview, and Committee Approval*

## **SCIENCE RESEARCH II / SCIENCE RESEARCH III**

FULL YEAR – ONE CREDIT EACH YEAR

The second and third years of the science research program provide students with the necessary support to refine a novel research question in a scientific area and investigate it through active experimentation. Students conduct research after school, on weekends, and during the summer. Due to the independent nature of the student's research and extensive time spent working on the project outside of class time, students in the junior and senior years of this program receive a multiplier equivalent to an AP course. Students read journal articles, design and conduct experiments, write research papers, present findings in symposium style, and submit research papers to the Junior Science and Engineering Symposium, the Florida Junior Academy of Science, and other research venues. Science Research II and III are considered AP level courses. *Prerequisite: Science Research I or Committee Approval if Evidence Supports Significant Prior Research Experience*

## SOCIAL SCIENCES

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*The Social Science Department promotes an understanding of the rights and responsibilities of citizenship in a democratic society, and challenges students to understand economic, geographical, political, and social themes of the world in which they will become leaders. Great Decisions, Character, and Consequence (GDCC) is a one-half credit Humanities course that is required for all freshmen. All students enrolled in Advanced Placement courses will take the Advanced Placement examinations for those courses.*

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### **GREAT DECISIONS, CHARACTER AND CONSEQUENCES – GDCC**

SEMESTER – ONE-HALF CREDIT (REQUIRED HUMANITIES CREDIT)

GDCC examines the role of ethics and morality in decision-making across a variety of situations in a global context. Elements of law, justice, character, equality, rights, economics, and science will all be examined through the lens of major philosophical and psychological perspectives. Applying these concepts to assorted historical and current examples, students will develop skills in critical thinking, civil discourse, and community engagement to help prepare them for engagement in their classes and communities.

### **MODERN WORLD HONORS: 1750 TO THE PRESENT**

FULL YEAR – ONE CREDIT

This course has two main objectives. The first is to provide a comprehensive survey of the world civilizations that form our modern world. By the end of the course, students should demonstrate a working knowledge of the major ideas, events, themes, and trends that have shaped modern world history. The inevitable march of technologies, the profound interactions between cultures, and some of the greatest triumphs and the worst horrors of our species' history makes the modern era fascinating to explore. The process by which we became the urban and forward-thinking culture we are today is fundamental to our understanding of where we may be going as a people. Perhaps most importantly, students will focus on the idea that every culture and time is unique, and to truly understand the past or others, you must try and see the world from their point of view. Since this course is also designed to expand the history skills of its students, it has as a second objective of improving the students' writing techniques, primary and secondary source assessment, and constructing sophisticated argumentation. This course is only available to ninth grade students.

### **UNITED STATES HISTORY HONORS**

FULL YEAR – ONE CREDIT

The purpose of this year-long course is to teach students to think critically about the issues that have confronted and influenced the United States through a process that integrates the examination of factual knowledge, the development and application of analytical skills, and the assessment of primary and secondary sources, through the study of U.S. History from North

America's Pre-Columbian beginnings to the present. The course is a broad overview of American history, focusing on major turning points. The students will obtain an understanding of American history to better understand the trajectory the United States has taken to get to the modern day. Students utilize a variety of tools, such as writing, discussion, projects, and analysis of primary sources to have a comprehensive understanding of the context. Students will look at history through the lenses of politics, society, economy, and culture. Major themes include power dynamics, expansion, social reform, interaction with the environment, the relationship between federal government and the states, the changing nature of government over time, and the American role in world affairs.

*Prerequisite: Grade Ten Standing*

## **SOCIAL SCIENCES AP COURSES**

### **UNITED STATES HISTORY AP**

FULL YEAR – ONE CREDIT

This course is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials in United States History. The level of work within the class is comparable to a full-year introductory college course. Students will be learning about American history from 1491-present, with an emphasis on understanding the connections between events and ideas across time periods. Students will be expected to read the class text, as well as primary sources, and apply that knowledge to answering analytical essays, document essays, and multiple choice questions. As this course is an AP designated course, the students focus on skills and themes prescribed by the College Board. The themes are broad topics seen throughout the scope of American history. They include America in the World, Politics and Power, Environment and Geography, Migration, Identity, Culture, as well as Work Exchange, and Technology. The skills are utilized throughout students' writing and are contextualization, comparison, causation, and continuity and change over time.

*Prerequisite: Grade Ten Standing; Dean/Department Approval*

### **ART HISTORY AP**

FULL YEAR – ONE CREDIT

Art History AP follows the College Board curriculum of studying works from prehistoric to contemporary art. The course focuses on three big ideas: (1) that artists manipulate materials and ideas to create works of art; (2) that art-making is shaped by tradition and change; and (3) that interpretations of art are variable. The works included in the course draw from multiple time periods, artistic media, and artistic traditions, such as South, East, and Southeast Asia, Europe and the Americas, the Ancient Mediterranean, Africa, and the Indigenous Americas. The course fosters students' in-depth learning, critical analysis, and understanding of connections among global artistic traditions. Students will develop their ability to analyze and compare works from various artistic traditions through class discussion, written essays, timelines, art-making, and field trips.

*Prerequisite: Grade Eleven Standing; Dean/Department Approval*

## **AP SEMINAR (CAPSTONE YEAR 1)**

FULL YEAR – ONE CREDIT

This is the first course in the AP Capstone Experience. It is focused on research, writing, critical analysis, and team building. It provides opportunities for students to make cross-curricular connections by exploring topics, questions, and ideas from multiple perspectives. Students develop the key academic skills of collecting and analyzing research and then crafting, communicating, and defending evidence-based arguments, both in writing and in presentations. Students write at least four evidence-based papers and hone these skills both individually and through collaboration. The class delves into a variety of topics from areas such as current events, bias in the media, teen issues, and inequalities in society. Students complete a team paper and presentation, an individual research based essay and presentation, and an end-of-course exam in order to earn their AP score at the end of the year.

*Prerequisite: Grade Ten Standing and Dean/Department Approval*

## **AP RESEARCH (CAPSTONE YEAR 2)**

FULL YEAR – ONE CREDIT

This is the second course in the AP Capstone experience. It allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, students further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000 to 5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense.

*Prerequisite: Successful Completion of AP Seminar*

## **EUROPEAN HISTORY AP**

FULL YEAR – ONE CREDIT

This course provides an introduction to the subject of Modern European History AP in a manner that students would encounter if they were enrolled in the equivalent course in college. The course content is divided into two semesters: (1) the late Middle Ages to the fall of Napoleon; and (2) the Industrial Revolution to the present. The subject will be approached from the vantage point of political, diplomatic, and military, as well as social, cultural, and intellectual history. In addition to gaining an understanding of the major people, events, and forces that shaped modern European history, the goals of the course are to develop: (1) an understanding of the principal themes in modern European history; (2) the ability to analyze historical evidence; and (3) the ability to express that understanding and analysis effectively in writing.

*Prerequisite: Grade Ten Standing and Dean/Department Approval*

## **GOVERNMENT AND POLITICS: UNITED STATES AP**

FULL YEAR – ONE CREDIT

The objectives of this course go beyond a basic analysis of how our government "works." Students of Government and Politics: United States AP develop a critical understanding of constitutionalism, liberty and order, civic participation in a representative democracy, competing policy-making interests, and methods of political analysis through data and text-based sources. The course requires substantial reading and preparation for every class, as it is taught as it would be in college. Students are responsible for keeping up with events in the news, as current events provide concrete connections for each lesson. To that end, throughout the year, the course text is supplemented by relevant articles from sources such as *The Washington Post*, *The New York Times*, *The Economist*, *Atlantic Monthly*, *NPR*, and *The Christian Science Monitor*.

*Prerequisite: Grade Ten Standing and Dean/Department Approval*

## **GOVERNMENT AND POLITICS: UNITED STATES AP**

SEMESTER ONE – ONE-HALF CREDIT

This is a one-semester iteration of the AP Government and Politics course.

*Prerequisite: Grade Eleven Standing and Dean/Department Approval*

## **GOVERNMENT AND POLITICS: COMPARATIVE AP**

SEMESTER TWO – ONE-HALF CREDIT

Examining six key countries, students delve deeply into the political, economic, and social functions of the international world. The countries specifically studied are the United Kingdom, Russia (formerly the Soviet Union), China, Iran, Nigeria, and Mexico. Students will be introduced to the comparative method. Students learn to compare and contrast political institutions and processes, analyze distinct dynamics regarding sovereignty and authority, discuss the varied relationships between society and the state, examine the nature of political and economic change over time, and scrutinize differences in public policy across the case study countries. Since all six of these countries are frequently in the news, current events will be an important part of this course's curriculum. Completion of this course will prepare the student for an understanding of concepts related to government as well as an appreciation for systems and societies outside the United States.

*Prerequisite: Grade Eleven Standing and Dean/Department Approval*

## **HUMAN GEOGRAPHY AP**

FULL YEAR – ONE CREDIT

This course provides students with a learning experience equivalent to college introductory human geography courses. Students study the patterns and processes that have shaped human interaction with and adaptation to the physical environment. By employing spatial concepts and landscape analysis, they understand human social organization and its environmental consequences. The curriculum reflects the goals of the National Geography Standards. Some of the topics students will encounter will be culture and diffusion, population, migration, politics,

religion, language, globalization, land use, urbanization, development, and industry. The course is intended to provide geographic context to the topics and issues we discuss.

*Prerequisite: Dean/Department Approval*

## **MICROECONOMICS AP/MACROECONOMICS AP**

SEMESTER ONE AND TWO – ONE CREDIT

**Microeconomics (semester 1)** provides a thorough understanding of the principles that apply to the functions of individual decision makers, both consumers and producers, within the larger economic system. It places primary emphasis on the nature and functions of product markets, and it includes the study of factor markets and the role of government in promoting efficiency and equity in the economy.

**Macroeconomics (semester 2)** is designed to give students a thorough understanding of the principles of economics that apply to an economic system as a whole. The course emphasizes the study of national income and price determination, and develops a familiarity with economic performance measures, economic growth, and international economics.

*Prerequisite: Grade Eleven Standing, and Dean/Department Approval*

## **PSYCHOLOGY AP**

FULL YEAR – ONE CREDIT

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major psychology perspectives: Biological, Cognitive, Sociocultural, Evolutionary, Humanistic, Psychodynamic, and Behavioral. Other course topics include the scientific foundations of psychology, sensation and perception, learning, developmental psychology, motivation, emotion, personality, and clinical psychology. Students will share their knowledge of the course through traditional assessment, projects, group work, and occasionally oral presentations.

*Prerequisite: Grade Ten Standing and Dean/Department Approval*

## **WORLD HISTORY AP**

FULL YEAR – ONE CREDIT

The skills developed in the AP World History course encourage students to better understand the evolution of global processes and contacts, including interactions over time. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. The global perspective necessary for material mastery can best be understood if we observe and analyze the patterns of continuity and change created by human interactions with other humans and with the planet's environment. Thus, the course focuses on the crossings of boundaries and the linkages of systems in the human past. World history also involves thinking about patterns of change and continuity over time. Ultimately, the course advances the idea that historical inquiry should have the widest possible perspective and not be predetermined by fixed cultural or geographic categories. *Prerequisite:*

*Dean/Department Approval*

## **SOCIAL SCIENCES POST-AP COURSES**

### **CRIMES AGAINST ART POST-AP**

FULL YEAR - ONE CREDIT

Material culture has long been at the center of wars over culture and territory. Some works of art have been the object of intentional destruction, such as the Persian sack of the Athenian Acropolis in 480 BCE, Botticelli's destruction of his own paintings at the Bonfire of the Vanities in 1497 CE, or the Taliban's demolition of the Bamiyan Buddhas in 2001 CE. Some works of art have been the object of theft, sale, or purchase by individuals and governments other than those who created or legally owned them. This class examines the various forms of crime that affect works of art and cultural heritage, including looting, fakes, theft, and both intentional and unintentional destruction. Students will investigate historical events and case studies in class discussions, reports and presentations, short essays, a midyear exam, and a research paper or project.

*Prerequisite: B+ or above in Art History AP; Dean/Department Approval*

### **POLITICAL SCIENCE POST-AP**

FULL YEAR – ONE CREDIT

This course focuses on evolving political issues and direct participation in civics, including, but not limited to, designing and hosting civic events for the Pine Crest School community, and engaging directly in the democratic process. An interactive and competitive successor to the AP Government and Politics course, this course seeks to foster high levels of civic engagement and content knowledge. Additionally, students will participate in the "We The People: The Citizens and the Constitution" competitive program, which may require travel to regional, state, and national competitions.

*Prerequisite: Completion of United States Government and Politics or Comparative Government AP, Application, and Dean/ Department Approval*

### **PHILOSOPHY, POLITICS, AND ECONOMICS POST-AP**

#### **(POLITICAL ECONOMY POST-AP ON TRANSCRIPT)**

FULL YEAR - ONE CREDIT

This Post-AP course includes extensive reading and critical analysis in the various disciplines that make up this subject. Philosophy, Politics, and Economics (PPE) looks at policy issues from various perspectives and the philosophical foundations that inform the role of government and markets in society. The field of Law and Economics, where students apply economic reasoning to legal issues, will also be examined. Most of the class will involve discussion of reading, as well as regular writing assignments of various lengths. The course assumes sufficient mastery of material from AP Micro/ Macro.

*Prerequisites: Micro/Macroeconomics AP, Application, and Dean/Department Approval*

## **PSYCHOLOGY RESEARCH AND APPLICATIONS POST-AP**

FULL YEAR – ONE CREDIT

This Post-AP course involves extensive critical analysis of current events, books, articles, and controversial research within psychology. Utilizing research methods, students will design and conduct independent research with human subjects, write consent forms, evaluate prior research, and collect data. Students enhance their critical thinking skills by applying aspects of psychology to popular media and literature through writing assignments and presentations. In addition, students will have the opportunity to foster their communication skills by facilitating daily class discussions.

*Prerequisites: Completion of AP Psychology, Application Process, and Dean/Department Approval*

## **SOCIAL SCIENCES ELECTIVES:**

### **CONSTITUTIONAL LAW HONORS**

SEMESTER - ONE-HALF CREDIT

The primary content for Constitutional Law Honors pertains to the study of major legal precedents and evolving judicial interpretations associated with the United States Constitution. Content could include, but is not limited to, the evaluation of historical and contemporary constitutional dilemmas through an analysis of legal documents, processes, and cases; examination of the evolution of constitutional government from ancient times to the present; arguments in support of our republican form of government; a comparison between the constitutional frameworks of other nations with that of the United States; a review and application of major Supreme Court decisions and the impact of both majority and minority opinions; the understanding of constitutional concepts and provisions establishing the power of the courts including separation of powers, checks and balances, the rule of law, an independent judiciary, and judicial review; and appellate processes and procedures to address constitutional questions.

*Prerequisite: Grade Ten Standing*

### **HOLOCAUST HISTORY HONORS**

SEMESTER - ONE-HALF CREDIT

The purpose of this course is not only to seek to understand why and how the Holocaust happened but also, through a multimedia approach, to analyze and compare the different ways of learning about the subject. The course begins by exploring the long-term roots of the Holocaust and then moves on to analyze its more immediate causes by tracing how and why the Nazis came to power in Germany and the origins of World War II. The bulk of the course focuses in depth on specific aspects of the Holocaust, including the persecution of the Jews in prewar Germany, the establishment of the ghettos, the mass shootings, the death camps, and the actions of resisters, collaborators, and bystanders. The course concludes with a consideration of the aftermath and legacy of the Holocaust, including the postwar war crimes trials, as well as acts of genocide that have occurred since World War II.

*Prerequisite: Grade Ten Standing*

## **INTERNATIONAL RELATIONS HONORS**

SEMESTER - ONE–HALF CREDIT

This course is an introduction to international relations, focusing on the large issues of war and peace in a broad historical, political, social, and cultural context. The first part of the course focuses on the political and diplomatic origins, military and strategic course, and social and cultural consequences of World War II. The course then examines the international relations of the Cold War, with an emphasis on its origins, outbreak, and escalation. The class then investigates the military, diplomatic, and political dimensions of a key conflict of the Cold War era—the Vietnam War. In the final part of the course, students analyze how and why the Cold War ended, and they examine the key events that have taken place in international relations since the end of the Cold War, including the wars in the former Yugoslavia and former Soviet Union, the wars in Afghanistan and Iraq, and the ongoing “War on Terror.”

*Prerequisite: Grade Ten Standing*

## **SOCIAL ENTREPRENEURSHIP I**

FULL YEAR – ONE CREDIT

**Theme: Social Entrepreneurship: What It Was, What It Is, What It Could Be.** This course equips students to utilize the principles of conscious capitalism to investigate real-world issues from multiple perspectives through collaborative team-building activities. Social entrepreneurs are socially responsible individuals with innovative ideas to solve the world’s most pressing problems, creating new product systems and solutions to help change people’s lives. Social entrepreneurship is not driven by profit as much as by societal needs that the entrepreneur has identified and is passionate about that need. Through the exploration of social impact projects that have changed the world, students will research exemplary entrepreneurial case studies, entrepreneurial schools of thought, and businesses committed to making a positive social impact. The emphasis will be on problem identification, brainstorming, and determining feasibility and effectiveness. Students will engage in design thinking challenges and participate in entrepreneurial competitions to develop creative confidence, use logic and imagination, and improve their collaboration skills. This is an honors level course.

*Prerequisite: Grade Ten Standing, Application, Interview, and Approval*

## **SOCIAL ENTREPRENEURSHIP II**

FULL YEAR – ONE CREDIT

**Theme: Social Entrepreneurship: From Ideation to Iteration.** Social entrepreneurs recognize the relentless pursuit of opportunity as a way of generating value through unique, novel, or desirable product services and processes that have not been previously exploited in a particular context. Students utilize the entrepreneurial method to create an impact statement, identify the means at hand, evaluate affordable loss and opportunity costs, and collaborate with others to search for types of resources. Students engage in continuous innovation, at times with limited resources, to address social, political, economic, and environmental issues across the globe. Building upon skills gained in year one and this year, students work in collaborative teams to prototype,

develop, and iterate an idea that results in a working model to address a particular problem/issue. This is an AP level course.

*Prerequisite: Social Entrepreneurship I*

### **SOCIAL ENTREPRENEURSHIP III**

FULL YEAR – ONE CREDIT

**Theme: Social Entrepreneurship: Make it Happen.** Students continue to explore social entrepreneurship, entrepreneurial ethics, legal considerations, conscious capitalism, and corporate social responsibility. Through a sustained mentorship with an entrepreneur in the field, students learn how to pioneer an innovative organization within a global marketplace, establish a unique presence for their brand or idea, and practice effective methods for identifying value. A culminating project includes the development of a detailed business plan for a social enterprise focused on building a more just and sustainable world. This is an AP level course.

*Prerequisite: Social Entrepreneurship I and II*

## WORLD LANGUAGES

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*In the World Languages Department, we believe that languages are the doors to cultural awareness and understanding. Starting in Middle School, we offer seven-year programs for Chinese, French, and Spanish, and at the Upper School, we introduce a four-year program of Latin. Regardless of their choice, students emerge from their language program as confident users of the language they study. These four languages were chosen considering their relevance and the strategic advantage they bring to the academic and professional realities our students will encounter as they graduate. All programs lead to a culminating AP or Post AP course. Inspired by the Advanced Placement curriculum from the College Board, our teachers innovate to enrich the work of learners at all levels of proficiency. The department currently offers five AP courses and one Post AP Seminar. Our offerings include opportunities for dual-language enrollment and a four-year program for Spanish heritage speakers.*

*Students participate in a rigorous and stimulating language acquisition journey in which they are at the center: they are the speakers; they are the writers; they are makers of ideas and information. In our hallways, students grow into leaders ready to tackle the challenges of an interconnected world.*

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### **CHINESE II**

FULL YEAR – ONE CREDIT

Chinese II sets a series of exercises and practices to continue the development of students' listening, speaking, reading, and writing skills. Students exchange ideas about hobbies and sports, weather and seasons, travel and transportation, health and medicine, and celebrations and traditions. Students also continue to strengthen their Chinese character writing skills, mastery of sentence structure, and pronunciation. Typical learning tasks include class discussions, collaborative projects, interpersonal writing, listening, and reading comprehension exercises.

*Prerequisite: Chinese I and Dean/Department Approval*

### **CHINESE II HONORS**

FULL YEAR – ONE CREDIT

Chinese II Honors aims to sharpen vocabulary and grammar structures so students communicate effectively on a range of topics, demonstrating a high level of control over basic language features. In addition to expanding vocabulary to express thoughts and ideas about daily events related to weather, travel, food, and health, students also learn an additional 200 characters, about 800 useful Chinese phrases of the Chinese language, and use a variety of strategies to produce or understand the language. Through class activities, discussions, collaborative projects, and compositions, students improve their Chinese character writing skills, sentence structure, and overall proficiency in the target language.

*Prerequisite: Chinese I and Dean/Department Approval*

### **CHINESE III**

FULL YEAR – ONE CREDIT

The focus of Chinese III is to help students develop the confidence to speak spontaneously, listen and understand key ideas, and read simple narratives and texts. In this course, students continue expanding their mastery of grammar and vocabulary to improve productive and receptive skills as emerging communicators that convey messages using strings of simple sentences in the target language. Through listening exercises, speaking activities, and collaborative projects, students have frequent opportunities to engage in meaningful conversations. A highlight of this course is a cultural project where students compare and contrast Chinese and American celebrations and traditions. Students also create videos about their life and share them with the class.

*Prerequisite: Chinese II and Dean/Department Approval*

### **CHINESE III HONORS**

FULL YEAR – ONE CREDIT

In this course, learners effectively describe cultural products, practices, or perspectives using the target language. Also, students continue strengthening their grammatical understanding to improve their comprehension of challenging texts. At this level, students demonstrate greater fluency in understanding key ideas from spoken sources and read short narratives with ease. In this course, vocabulary expansion targets personal experiences such as celebrations, dating, travel, the challenges of school work, and health. Students are often tasked with speaking spontaneously about themselves, their everyday activities, and the short stories read in class.

*Prerequisite: Chinese II Honors and Dean/Department Approval*

### **CHINESE IV**

FULL YEAR – ONE CREDIT

This course is designed to help students move from communicating using strings of basic sentences to producing and connecting their ideas into paragraph-long discourse. Through collaborative activities, reading and listening exercises, class discussions, writing assignments, and more, students review grammar structures and vocabulary while learning strategies to communicate more intricate degrees of tone and emphasis. Students also learn to discuss self-relevant topics in greater detail and from different perspectives in activities that require consistent control of basic high-frequency structures.

*Prerequisite: Chinese III and Dean/Department Approval*

### **CHINESE IV HONORS**

FULL YEAR – ONE CREDIT

Chinese IV Honors aims at boosting accuracy and confidence in receptive and productive skills (listening, reading, speaking, and writing.) Students review grammar and vocabulary while learning strategies to communicate more effectively. The class revolves around everyday life topics, such as people, places, food, spare time, and health, in greater detail and from different perspectives. To enhance productive skills, students prepare and present dialogues, write emails or short paragraphs, and participate in class discussions. Students are also tasked with

understanding and providing supporting details about familiar topics in spoken or written form. Through listening and reading exercises, students improve their comprehension, gain new vocabulary and increase their confidence.

*Prerequisite: Chinese III Honors and Dean/Department Approval*

## **CHINESE V HONORS**

FULL YEAR – ONE CREDIT

Chinese V Honors is a four-skill course emphasizing oral proficiencies (listening and speaking.) The class revolves around daily-life themes. Students refine their production and understanding of the target language and culture through class discussions, listening exercises, pronunciation practices, reading, and collaborative projects. These ongoing and meaningful opportunities deepen students' understanding and command of the language, encourage students to express and discuss their own ideas and interests, and enhance cultural awareness.

*Prerequisite: Chinese IV*

## **CHINESE LANGUAGE AND CULTURE AP**

FULL YEAR – ONE CREDIT

The AP Chinese Language and Culture course is a college-level course that emphasizes interpersonal, interpretive, and presentational communication in real-life situations. The course includes extensive vocabulary usage, language control, diverse communication strategies, and strong cultural awareness. Through the incorporation of authentic materials and a variety of performative activities, students develop awareness and appreciation of cultural products (books, music, law, conventions, and institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). Some cultural aspects studied include myths, festivals, and traditions. Throughout the year, students fine-tune their ability to pick up key ideas and supporting details from passages about familiar topics while learning strategies to comprehend more advanced or unfamiliar samples.

*Prerequisite: Chinese IV Honors and Dean/Department Approval*

## **FRENCH II**

FULL YEAR – ONE CREDIT

French II is a course designed to broaden students' vocabulary, grammar, and cultural awareness. The course revolves around everyday-life themes, such as people, places, errands, and spare time. Students continue to build upon basic grammatical structures such as regular and irregular conjugations in the main indicative tenses. Major themes in this course explore francophone cultures around the world, their past and their present. Students develop reading, writing, listening, and speaking skills through class discussions, collaborative projects, and oral presentations. Throughout the year, students engage in individual and group activities about communication of ideas, understanding of cultural practices, and establishing connections between French-speaking communities and their own.

*Prerequisite: French 7 and 8 or French I*

## **FRENCH II HONORS**

### **FULL YEAR – ONE CREDIT**

The purpose of this course is to challenge students who already communicate effectively in French about situations relevant to themselves, to others, and to their immediate environment to express their opinions and ideas about more abstract topics with sufficient control of language. Students work with simple narratives, routine correspondence, short descriptive texts, and other selections within familiar topics. The study of culture is also a component of daily instruction. Since there is an emphasis on oral communication, the class is conducted entirely in the target language, and students are expected to communicate exclusively in the target language using different strategies such as role-play, analysis of short stories, and spontaneous narration of daily situations. Toward the end of the course, students are expected to show emerging evidence of their ability to create messages on general interest and topics such as how holidays, celebrations, and travel contribute to one's identity and well-being.

*Prerequisite: French 7 and 8 or French I, and Dean/Department Approval*

## **FRENCH III**

### **FULL YEAR – ONE CREDIT**

French III aims to develop students' ability to communicate in the target language while exploring the culture of the French-speaking world. In this course, students continue their study of the indicative and subjunctive moods, practice complex grammatical structures, and expand their vocabulary. They also write short paragraphs and maintain short conversations using specific vocabulary related to the arts and learning about the benefits of understanding other cultures. Typical activities in this class include reading and listening comprehension exercises, class discussions, oral presentations, collaborative projects, and writing assignments.

*Prerequisite: French II and Dean/Department Approval*

## **FRENCH III HONORS**

### **FULL YEAR – ONE CREDIT**

This course is designed for students who can communicate by understanding and creating personal meaning and who consistently initiate, maintain, and end a conversation to satisfy basic communicational needs. The activities in this course help students make connections by reinforcing knowledge of other disciplines through French. Students expand their vocabulary to express paragraph-length ideas about discovering technology, exploring spaces and places, looking into perspectives on professions and workplaces, and analyzing environmental challenges. Through a variety of performative tasks in which students read, listen, and learn about new information in the target language, they strengthen their productive skills; show emerging evidence of the ability to communicate spontaneously about more than the here and now; and understand the language further through comparisons of francophone culture and their own.

*Prerequisite: French II Honors or Dean/Department Approval*

## **FRENCH IV**

FULL YEAR – ONE CREDIT

French IV aims to boost students' linguistic confidence and consistency in receptive and productive skills (listening, reading, speaking, and writing). The course focuses on themes about contemporary life: interests of peoples of the francophone world and common human values. Students also analyze how francophone society stays true to its traditions. Through collaborative projects and the continued study of the language and literature, students take part in conversations, provide and obtain information, express feelings and emotions, and exchange opinions in the target language, thus developing effective communication skills in a natural and meaningful way.

*Prerequisite: French III and Dean/Department Approval*

## **FRENCH IV HONORS**

FULL YEAR – ONE CREDIT

In this course, students consolidate their understanding and mastery of language structures to initiate and maintain conversations with confidence about issues that go beyond the personal into the academic and the professional contexts. Students read and comprehend a variety of texts and express their opinions about them with confidence in oral and written communication tasks. Students become informed users of the language by working with real magazines, newspapers, radio, and television about the realities of the French-speaking world. They communicate in paragraph-length extemporaneous discourse and in organized short narratives. At the end of the course, students confidently handle conversations with unexpected complications and improvised scenarios and express certainty or uncertainty comfortably in all major time frames.

*Prerequisite: French III Honors or Dean/Department Approval*

## **FRENCH V HONORS**

FULL YEAR – ONE CREDIT

This is a four-skill course with an emphasis on strengthening written communication proficiencies (reading and writing). The class revolves around daily-life themes like goals and interests of the French speaking society, its development through time, the arts, and influences and changes in contemporary communities. Students refine their understanding and production of the French language and culture through class discussions, reading comprehension exercises, reading authentic contemporary texts, and collaborative projects. These ongoing and meaningful opportunities deepen students' understanding and command of the target language, encourage them to express and discuss their own ideas and interests, and enhance their cultural awareness.

*Prerequisite: French III or IV and Dean/Department Approval*

## **FRENCH LANGUAGE AND CULTURE AP**

FULL YEAR – ONE CREDIT

The AP French Language and Culture course is a college-level course that emphasizes interpersonal, interpretive, and presentational communication in real-life situations. Classroom

activities include extensive vocabulary usage, language control, diverse communication strategies, and strong cultural awareness. This course emphasizes effective communication and is taught exclusively in French, engaging students in an exploration of culture in contemporary, historical and geographic contexts. Through news research and a variety of performative activities, students develop awareness and appreciation of cultural products (books, music, law, conventions, and institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

*Prerequisite: French IV Honors and Dean/Department Approval.*

## **LATIN I HONORS**

FULL YEAR – ONE CREDIT

Latin I Honors is a course specifically designed for students with no previous knowledge of the language. In this course, students learn the basic vocabulary, grammar, and syntax of Latin. Verb conjugations in the indicative mood and personal and relative pronouns are at the core of this class. Students become familiar with aspects of the culture, history, art, and legacy of the Romans. They also strengthen their understanding of the grammar and etymology of the English language through reading and comparative analysis of Latin and English grammatical structures and syntax.

## **LATIN II HONORS**

FULL YEAR – ONE CREDIT

The purpose of the course is to broaden students' vocabulary and grammar. In this course, students explore different aspects of the Latin culture, history, art, and legacy of the Romans in greater depth. Students also expand their knowledge of verb conjugations in the indicative active and passive (present, imperfect, future, perfect, pluperfect, and future perfect). By reading adapted and authentic materials, such as graffiti and inscriptions on buildings, students develop the ability to tackle more complex texts enabling them to produce longer passages.

*Prerequisite: Latin I Honors*

## **LATIN III HONORS**

FULL YEAR – ONE CREDIT

The course aims to finalize the mastery of basic Latin structures and promote comprehension without translation. New grammatical structures are added to the students' repertoire. Some of these structures are gerunds, gerundives, defective verbs, deponents and semi-deponents, irregular verbs, impersonal verbs, and the subjunctive mood in various clauses. Through the reading of primary sources authored by prominent Roman writers, students increase their understanding of ancient Rome's culture, history, and legacy.

*Prerequisite: Latin II Honors*

## **LATIN IV HONORS**

FULL YEAR – ONE CREDIT

This course has been designed for students wishing to develop their fluency in Latin for college placement and potential careers. It offers students a broad sampling of Roman authors and their

historical themes. Building on their advanced understanding of the Latin language, students learn about Roman culture, history, and politics through the eyes of those that witnessed it—the Romans themselves. Throughout the year, students will read and analyze poetry and prose texts authored by prominent Roman writers enabling them to gain a broader understanding of the Roman way.

*Prerequisite: Latin III Honors*

## **LATIN AP**

FULL YEAR – ONE CREDIT

This college-level course aims to develop the students' ability to read, understand, translate, and analyze Latin poetry and prose. The course includes extensive vocabulary, language structures, history, art, and culture. As this course is an AP-designated course, the students focus on skills, themes, and texts prescribed by the College Board. The themes are broad topics that explore concepts like literary techniques, Roman values, war and empire, leadership, views of non-Romans, history and memory, and human beings and the gods. Students read and analyze selections from two of the greatest works in Latin literature: Caesar's *De Bello Gallico* and Vergil's *Aeneid*. Through literal translations, reading and comprehension of sight passages, and the composition of written analyses in both Latin and English, students explore the authors' styles and the legacy of ancient Rome.

*Prerequisite: Latin III Honors*

## **SPANISH I**

FULL YEAR – ONE CREDIT

Spanish I is a course specifically designed for students who have no formal or very little study of the Spanish language. In this course, students learn frequently-used vocabulary needed for everyday interactions and fundamental Spanish grammar, including articles, nouns, adjectives, prepositions, and verb conjugations in the present and the past. Through various visual and auditory media, reading and writing activities, class discussions, and oral presentations, students explore cultural products and perspectives, developing their linguistic abilities and their knowledge of the Spanish-speaking world.

## **SPANISH II**

FULL YEAR – ONE CREDIT

Spanish II is designed to broaden students' vocabulary, grammar, and cultural awareness. The course revolves around everyday-life themes, such as people, places, errands, and spare time. Students continue to build upon basic grammatical structures such as regular and irregular conjugations in the main indicative tenses. Toward the end of the school year, students learn the present subjunctive mood and its primary uses to express recommendations, wishes, and doubts. Students develop reading, writing, listening, and speaking skills through class discussions, collaborative projects, and oral presentations. A flagship project of this class is the creation of an original story about their childhood in which they describe anecdotes and main events in

chronological order using different time frames.

*Prerequisite: Spanish I*

## **SPANISH II HONORS**

FULL YEAR – ONE CREDIT

The purpose of this course is to challenge students who already communicate effectively in Spanish about situations relevant to themselves, to others, and to their immediate environment; and to express their opinions and ideas about more abstract topics with sufficient control of language. In this course, students work with simple narratives, routine correspondence, short descriptive texts, and other selections within familiar topics. Also, the study of culture is a component of daily instruction. Since there is an emphasis on oral communication, the class is conducted entirely in Spanish, and students are expected to communicate exclusively in the target language using different strategies such as role-play, analysis of short stories, and spontaneous narration of daily situations. Toward the end of the course, students are expected to show emerging evidence of their ability to create messages on general interest and work-related topics such as living in cities, interactions with the natural world, the job market, technology use, and current events.

*Prerequisite: Spanish I Honors or Dean/Department Approval*

## **SPANISH III**

FULL YEAR – ONE CREDIT

Spanish III aims to develop students' ability to communicate in the target language while exploring the culture of the Spanish-speaking world. In this course, students write short paragraphs and maintain short conversations using specific vocabulary related to people, communities, health, fashion, social challenges, and more. Students review verb conjugations from previous courses, and they also expand their verb knowledge by adding the perfect tenses in the indicative and the imperfect subjunctive. Typical activities in this class include reading and listening comprehension exercises, class discussions, oral presentations, collaborative projects, and writing assignments. A special project in this class is the creation of journalistic narratives about current events. Students design a newspaper front page about their chosen topics.

*Prerequisite: Spanish II or Spanish II Honors*

## **SPANISH III HONORS**

FULL YEAR – ONE CREDIT

This course is designed for students who can communicate by understanding and creating personal meaning and who consistently are able to initiate, maintain, and end a conversation to satisfy basic communicational needs. Students expand their vocabulary to express complex opinions about personal relationships, spare time, health and well-being, the latest advances in science and technology, and current economy and work issues. Through a variety of performative tasks in which students read, listen and learn about new information in the target language, they strengthen their productive skills and show emerging evidence of the ability to communicate spontaneously about more than the here and now. *Prerequisite: Spanish II Honors or*

*Dean/Department Approval*

### **SPANISH IV**

FULL YEAR – ONE CREDIT

Spanish IV aims to boost students' linguistic confidence and consistency in receptive and productive skills (listening, reading, speaking, and writing.) The course focuses on six themes based on contemporary life: identities, the environment, culture and traditions, mass media, social issues, and the arts. Through collaborative projects and the continued study of the language, literature, and culture of Spanish-speaking communities worldwide, students develop effective communication skills in the target language in a natural and meaningful way. Highlights of this course are a construction project in the iLab and a news broadcast project in the PCTV studio.

*Prerequisite: Spanish III or Spanish III Honors*

### **SPANISH IV HONORS**

FULL YEAR – ONE CREDIT

In this course, students consolidate their understanding and mastery of language structures to express themselves fully and maintain conversations with confidence about issues that go beyond the personal into the academic and the professional contexts. Some of the themes explored include the connection between identity and personal relationships, the impact of technology on decisions, generational challenges between young people and their parents and grandparents, different beliefs and values across societies, the connection between entertainment and mental health, and environmental issues. Students become informed users of the language by working with current news, short stories, poems, opinions, and short films about the realities of the Spanish-speaking world. They communicate their thoughts and ideas in paragraph-length conversations and in organized short narratives and essays. At the end of the course, students confidently handle conversations with unexpected complications and improvised scenarios and express certainty or uncertainty comfortably in all major time frames.

*Prerequisite: Spanish III Honors or Dean/Department Approval*

### **SPANISH IV HONORS - HERITAGE SPEAKERS**

FULL YEAR – ONE CREDIT

This course is designed for students whose greatest exposure to Spanish has been at home rather than the classroom. It is also designed for students who have learned Spanish as a second language, have progressed significantly in their acquisition process, and are ready to tackle the challenges of a curriculum enriched with Spanish literature. Students read full versions of poems, short stories, essays, and news articles; read abridged versions of medieval novels; watch short films; and discuss authentic materials from a variety of sources on themes inspired by the AP curriculum. Also, to gain a historical background for the main literary works they will study in this and subsequent courses, students research the main civilizations of Pre-Columbian Latin America and Spain. Through inquiry-based tasks, presentations, literary text analysis, and essay and poetry writing, students greatly expand their literacy skills in the language. *Prerequisite: Spanish I Honors, Placement Test, and Dean/Department Approval*

## **SPANISH V HONORS**

FULL YEAR – ONE CREDIT

This is a four-skill course with an emphasis on strengthening oral communication proficiencies (listening and speaking). The class revolves around daily-life themes like people, education and work-life, automobiles and directions, animals, health, public safety, art, travel and tourism, clothing, and the house. Students refine their production and understanding of the Spanish language and culture through class discussions, listening exercises, pronunciation practices, reading of authentic contemporary texts, and collaborative projects. These ongoing and meaningful opportunities deepen students' understanding and command of the target language, encourage them to express and discuss their own ideas and interests, and enhance their cultural awareness.

## **SPANISH LANGUAGE AND CULTURE AP**

FULL YEAR – ONE CREDIT

The AP Spanish Language and Culture course is a college-level course that emphasizes interpersonal, interpretive, and presentational communication in real-life situations. Classroom activities include extensive vocabulary usage, language control, diverse communication strategies, and strong cultural awareness. This course emphasizes effective communication and is taught exclusively in Spanish, engaging students in an exploration of culture in both contemporary and historical contexts. Through news research and a variety of performative activities, students develop awareness and appreciation of cultural products (books, music, law, conventions, and institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

*Prerequisite: Spanish IV Honors or Equivalent and Dean/Department Approval*

## **SPANISH LANGUAGE AND CULTURE AP (FOR HERITAGE SPEAKERS)**

FULL YEAR – ONE CREDIT

This college-level course emphasizes interpersonal, interpretive, and presentational communication in real-life situations for students whose greatest exposure to Spanish has been at home rather than the classroom. It is also designed for students who have learned Spanish as a second language, have progressed significantly in their acquisition process, and are ready to tackle the challenges of a curriculum enriched with Spanish literature. Classroom activities develop extensive vocabulary and a high level of language control that not only will allow students to succeed in the AP examination in May, but also prepares them for the AP Spanish Literature and Culture course. In addition to working with a variety of authentic materials about current events, students read an abridged version of *Lazarillo de Tormes*, and full versions of *Dos Palabras*, *Borges y yo*, *A Julia de Burgos*, and *Tú me quieres blanca*. As culminating projects, students create original script adaptations of Latin American myths and write cuentos for elementary school children as metaphors for solving global issues. *Prerequisite: Spanish IV Honors - Heritage Speakers or Equivalent and Dean/Department Approval*

## **SPANISH LITERATURE AND CULTURE AP**

FULL YEAR – ONE CREDIT

This course aims to refine Spanish reception and production through the study of literature and literary analysis. It is comparable to a college or university survey course of literature written in Spanish at the first level counted towards a major in this subject area. As this course is an AP-designated course, the students focus on skills and themes prescribed by the College Board. The themes are broad topics, including societies in contact; the construction of gender, time and space; interpersonal relationships; the duality of being; and literary creation. Students expand their knowledge of the many voices, historical periods, and cultures of the Spanish-speaking world through reading and writing about selected texts that exemplify the traditional genres of Hispanic literature: prose, poetry, drama, and essays. Typical activities of this course include critical reading, listening exercises, class discussions, collaborative activities, and analytical writing.

*Prerequisite: AP Spanish Language and Culture*

## **SPANISH: 20TH CENTURY LATIN AMERICAN LITERATURE POST-AP**

FULL YEAR – ONE CREDIT

This is a Post-AP Spanish course with emphasis on modern literature and social change. This course will explore the concept of Magical Realism as a reflection of the complexity of the Latin American social fabric. Through guided readings, class discussions, collaborative projects, and analytical writings, students will examine and critique original narratives of the complex and multidimensional Latino American experience.

*Prerequisite: AP Spanish Literature and Culture*

## DIGITAL MEDIA AND FINE ARTS

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*The Fine Arts Department fosters the development of artistic expression through its various creative and collaborative offerings. Courses include those of the performing arts, digital arts, and visual arts, such as Music, Art, Dance, Theater, and Debate. One full Fine Arts credit is required for graduation, and students may choose to also take additional Fine Arts courses as electives. All students enrolled in Advanced Placement courses will take the Advanced Placement examinations for those courses. Only AP level art classes are factored into the GPA.*

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### **DIGITAL MEDIA**

Pine Crest School's cross-campus Digital Media Production Department provides students with a unique opportunity to delve into media production while enhancing their 21st century skill set. Students learn hands-on skills that transcend the typical classroom experience. With three fully-equipped digital broadcast studios and three high definition post-production facilities, students gain invaluable experience in media creation while developing their creativity, teamwork, communication, critical thinking, problem solving, media literacy, and technology skills. Digital Media Production Department provides video production, media content creation, live streaming services, and event coverage through articles and video stories to school divisions, the Fine Arts department, and the Athletics department.

### **FILM STUDIES: HISTORY, THEORY AND WRITING FOR THE SCREEN**

FULL YEAR – ONE CREDIT

The goal of this course is to create film literate students. The course is designed to provide the student with the intellectual capability of film analysis and the aesthetic sensibilities to appreciate film as an artistic medium. The curriculum explores the history of film beginning with its conception and technologies beginning in the late 1800s. To engender this film literacy, enrolled students will watch numerous critically acclaimed films. Students watch at least one film from each decade from the 1920s to the present. Students will explore films within different genres and from different influential directors. Through this intellectual foundation, students write critical analyses of classic films and create their own short screenplays. Additionally, students will learn the fundamentals of sound and sound design. As part of this unit, students create all of the sound for an excerpted scene from a classic film. Students leave the course with an appreciation for the power of cinema as an art form and will have the option to continue pursuing film at Pine Crest or at the college level.

*Prerequisite: Film Production I and II*

### **FILM STUDIES II: HISTORY, THEORY AND WRITING FOR THE SCREEN**

FULL YEAR – ONE CREDIT

A natural progression in coursework for those students interested in film, students in this class learn more about writing screenplays and screen a couple of films that have critically acclaimed scripts. The students then create their own screenplays using Writer Duet. Once the screenplay

has been revised and approved, students begin producing their project. Students use film equipment such as cinematic cameras, Steadicam rigs and lighting gear. Upon completion of production, students then edit the film. This process is completed each semester.

*Prerequisite: Film Production I and II and Film Studies I*

## **TELEVISION BROADCASTING AND FILM PRODUCTION**

FULL YEAR – ONE CREDIT

This course is designed as a flexible production course that allows students to explore two production domains: digital video production for broadcast and digital video production for film and other creative formats. In the domain of broadcast, students learn how to use the digital field camera, the basics of shot composition and sequencing, and how to capture and properly use sound. Students also learn how to write scripts for broadcast packages and have the opportunity to explore the various broadcast positions within the TV Studio. Lastly, students receive extensive training in non-linear digital video editing with Final Cut Pro and Adobe CC. In the domain of film and creative productions, students learn the basics of the screenwriting process and receive extensive training in cinematography and sound design. Students also learn the basics of animation as well as how to create digital portfolios and resumes. All work is completed in a state-of-the-art, high-definition, digital broadcast studio and post-production facility. Instruction is differentiated to allow students the opportunity to explore areas of interest. Every year, all students are invited to participate in various state and national competitions, including those offered by the Student Television Network (STN), The All American High School Film Festival, and The Florida Scholastic Press Association (FSPA). Students may take this course for credit for more than one year.

## **ADVANCED TELEVISION PRODUCTION**

FULL YEAR – ONE CREDIT

This course is designed for current Digital Media production students to delve deeper into digital video production within each of the two domains: broadcast and film/creative. In this course, students build and expand upon the foundational skills acquired in the first year course. Students produce content based on contest prompts or their own areas of interest. Students have the opportunity to focus on building specific branded program types as they expand their skills and push their content creation ability even closer to that of professional media.

*Prerequisite: One Year of Television Broadcasting and Film Production*

## **ADVANCED TELEVISION PRODUCTION II**

FULL YEAR – ONE CREDIT

Students in this course are the most advanced in the digital media program, dedicated to the production of the weekly broadcast to the Upper School, PCTV Live. Students create video content through the use of advanced broadcast cameras and editing software, as well as work on writing, interviewing and on-camera presence. Students also produce live special events, such as Homecoming, sporting events, theater productions, and pep rallies. This course may be taken for more than one year. *Prerequisite: One Year of TV Broadcasting and Film Production, and Recommendation from Instructor*

## **FILM PRODUCTION I AND II**

SEMESTER ONE AND TWO – ONE CREDIT (SEQUENTIAL COURSEWORK)

**Film Production I:** Is a hands-on learning experience diving into the world of cinema. Beginning with the camera, students learn the intricacies of cinema cameras, how they operate, and why cinematographers make the camera and lens choices for films. The course then moves onto lighting and color theory, where the students manipulate the light in a scene, determine the mood and the genre of a scene, and discover how to handle them safely while on a set. The third portion of this course takes students on an auditory thrill ride to add sound to their movies. From Music to Dialogue to Foley, students learn to fill the empty sound bubble and complete the cinema experience. The final portion of the course allows students to bring out the big guns. They plan, block, light, and shoot their scenes, both indoors and out, to bring their scripts to life.

**Film Production II:** Final Cut, Premiere, After Effects, DaVinci, and Avid, to name a few, students dive into the world of Post Production and non-linear editing. Students learn how to properly handle, optimize and organize media, use proper terminology, and create the magic behind the edit through step-by-step instruction. They will discover how to craft a story from a collection of camera angles and how to weave various sound files and spin them into a story worthy of the fabled Silver Screen. This course is also designed to prepare interested students to take the Final Cut and/or Adobe Premiere Certification exams, making them certified in industry standard editing systems before they even get to college.

*Prerequisite: One Year of Television Broadcasting and Film Production*

## **FINE ARTS**

### **FUNDAMENTALS OF MUSIC THEORY**

FULL YEAR – ONE CREDIT

This course is offered to students who are interested in music theory and all of the components of music, both written and aural, and becoming fluent in the reading and writing of the language of music. Topics for this course include music notation, clefs, intervals, chords, scales, modes, harmonic functions, rhythms, and melodies. Students learn how to compose songs with melody and harmony through the use of textbooks and workbooks, apps and music theory sites, as well as individual music keyboards. By the end of the class year, students will be well prepared to advance to the Music Theory AP course.

### **MUSIC THEORY AP**

FULL YEAR – ONE CREDIT

Music Theory AP develops students' ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. Students further develop fundamental aural, analytical, and compositional skills through listening and written exercises. Building on this foundation, the course progresses to include more creative tasks, such as the harmonization of a melody by selecting appropriate chords, composing a musical bass line to provide two-voice counterpoint, or the realization of figured-bass notation.

*Prerequisite: Grade Ten Standing, Fundamentals of Music Theory, and Department Approval*

## **ARRANGING AND COMPOSITION POST-AP**

FULL YEAR - ONE CREDIT

This course is designed to expand the students' first-hand knowledge and understanding of the world of music. Enrolled students should already know the fundamentals of music notation and theory as covered in the course's prerequisite, AP Music Theory. Previous knowledge will be applied to students' own creative ideas to arrange and compose original music for various ensembles. They will review their creations aurally by having technology perform their work as they complete each step of the creative process. Fellow musicians will perform select work. Upon successful completion of this course, students will be able to assign appropriate instruments for any given part, set up a score for those instruments, compose satisfying melodies, harmonize their melodies, write supporting bass lines and counterpoints, and input their creations into a Finale or Sibelius notation software.

*Prerequisite: Music Theory AP*

## **INSTRUMENTAL ORCHESTRATION POST-AP**

FULL YEAR - ONE CREDIT

This course will be a survey of orchestrational practices with an emphasis on contemporary approaches. It will include score study, analysis, listening, exercises, transcriptions for orchestra, band, and jazz ensembles and ultimately the creation of new works for each ensemble that will be read (and recorded if possible) by Upper School performing groups. Discussions and activities will reinforce key orchestrational concepts including the possibilities and capacities of each instrument, including both idiomatic and extended techniques, as well as writing for various instruments in combination with one another.

*Prerequisite: Music Theory AP; Arranging and Composition*

## **PERFORMING ARTS: DANCE**

### **INTRODUCTION TO DANCE I**

FULL YEAR – ONE CREDIT

This entry-level course is cultivated for the less experienced dancer. The course will introduce various styles and topics of dance, focusing on ballet, but also including hip-hop, jazz, modern, tap, and world dance. Strength conditioning, gross motor skills, and physical coordination are all addressed through movement. This course is offered with a health component that meets once a week for the entire year and fulfills the Health/PE graduation requirement. Upon successful completion of the course, students will be ready for Intermediate Ballet or Contemporary Dance.

### **INTERMEDIATE BALLET**

FULL YEAR – ONE CREDIT

The Intermediate Ballet course is a culmination of classical ballet technique, dance theory, kinesiology, and ballet history. Students will learn and execute barre work and stretching and will focus greatly on the utilization of their cores. Proper placement and posture are stressed, with special attention to rotation, extension, lengthening, and muscle development. This course is

offered with a health component that meets once per week for the entire year, which fulfills the Health/PE required for graduation.

*Prerequisite: Intro to Dance or Dean/Department Approval*

### **ADVANCED BALLET**

FULL YEAR – DOUBLE PERIOD EVERY OTHER DAY - ONE CREDIT

This course is designed for the advanced ballet dancer. Students work on classical ballet technique, dance theory, kinesiology, and ballet history. The dancers are challenged both physically and mentally in this course. Classwork consists of barre work, center combinations, and across-the-floor sequences of movement. The main focus is classical ballet technique, performance quality, and artistry. Pointe work is expected for advanced dancers. This course is offered with a health component that meets once a week for the entire year which fulfills the Health/PE graduation requirement.

*Prerequisite: Intermediate Ballet, Audition, and Dean/Department Approval*

### **CONTEMPORARY DANCE**

FULL YEAR – ONE CREDIT

Designed for the intermediate to advanced dancer, contemporary takes the techniques of ballet, modern, and jazz styles and fuses them together to create a unique style. Students focus on ballet and modern technique while adding performance elements. Students are exposed to traditional modern techniques, such as Horton, Limón, and Graham, in addition to strength and conditioning to prevent injury. This course is offered with a Health component that meets once a week for the entire year and fulfills the Health/PE graduation requirement.

*Prerequisite: Introduction to Dance or Dean/Department Approval*

### **PERFORMING ARTS: MUSIC**

\*NOTE: Some student-musicians opt to participate in two courses, which when combined will reflect as one full credit on the transcript.

#### **BAND | SELECT BAND ENSEMBLE**

FULL YEAR – ONE CREDIT

Select Band Ensemble focuses on improving musicianship through developing students' senses of tonality, meter, and technique through the analysis of musical structure and style. Students have opportunities to compose, arrange, conduct, and take part in seminars with critiques by performers, composers, arrangers, and teachers. This course emphasizes individual growth, is broad in scope, and has content that meets the diversified needs of today's instrumental music students. Diligent practice is expected, and private lessons are encouraged. Each student will be eligible for and have the opportunity to audition and perform at festivals sponsored by Broward Music Educators Association, the Florida School Music Association, and the Florida Bandmasters Association.

*Prerequisite: Prior Band experience, Audition, and Dean/Department Approval*

## **HONORS JAZZ ENSEMBLE**

FULL YEAR – THREE PERIODS PER WEEK – ONE-HALF CREDIT

This course offers a challenging and professional approach to performing, interpreting, and listening to Jazz, America's original music form. In addition to their work in the full ensemble, student musicians perform solo, trio, combos, and small ensembles in concerts and competitions throughout the year. Students demonstrate improvement in sight-reading, analysis, and execution of music fundamentals. Additional participation in district, state, or national music events and festivals is required.

*Prerequisite: Audition and Dean/Department Approval*

*Co-Requisite: Select Band or Select Orchestra*

## **CHORUS | SELECT VOCAL ENSEMBLE**

FULL YEAR – ONE CREDIT

This course is designed for experienced student musicians who perform music from the classic and contemporary choral repertoire in concerts and competitions throughout the year. As with all school ensembles, this course offers a well-rounded, disciplined, and professional approach to singing, interpreting, and listening to music of the highest quality. Students demonstrate improvement in sight-reading, analysis, and execution of music fundamentals. Additional participation in district, state, and national events and festivals is required.

*Prerequisite: Prior Chorus experience, Audition, and Dean/Department Approval*

## **ORCHESTRA | SELECT ORCHESTRA**

FULL YEAR – ONE CREDIT

Select Orchestra Ensemble is for the more experienced student musicians. These students are afforded opportunities to perform music from the classical and contemporary choral repertoire in concerts and competitions throughout the year. As with all school ensembles, this course offers a well-rounded, disciplined, and professional approach to playing, interpreting, and listening to music of the highest quality. Students demonstrate improvement in sight-reading, analysis, and execution of music fundamentals. Additional participation in district/state/national music events and festivals is required.

*Prerequisite: Prior Orchestra experience, Audition, and Dean/Department Approval*

## **OTHER PERFORMING ARTS**

### **ACTING AND THE THEATER**

FULL YEAR – ONE CREDIT

Through text analysis and character development with a focus on the actor's instrument, students will master the fundamentals of performance for the theater. Students are up on their feet from day one, creating, moving, and acting! Drawing from contemporary and classical texts, students will explore the process of Stanislavskian acting technique and develop listening and reacting skills. In addition, we will investigate the craft of the playwright, director, actor, designer, and producer. Students will gain an appreciation of these disciplines, enhance their knowledge of the

process, and recognize the contributions of various theater artists from classical and modern works. However, it is all about the journey, and a special emphasis is placed on preparing scene work and monologs for District and State Thespian competitions, where students' work is rated and critiqued by industry professionals.

## **FORENSICS /DEBATE**

### **SEMESTER ONE AND TWO – ONE CREDIT (SEQUENTIAL COURSEWORK)**

In the first semester, this course provides an in-depth study of debate and the building blocks necessary for competing in debate competitions. During the semester, students are provided opportunities to study argument construction, current events, debate formats, logic, and persuasion. Students will use these newfound skills while competing in co-curricular debate competitions. Each student will, at least temporarily, become a member of the Pine Crest Debate Team and will be required to earn 20 National Speech and Debate Association points.

During the second semester, students will continue to hone their debate, argumentation, and logical thinking skills in an attempt to become better advocates. In addition to policy debate, students will also be introduced to alternative forms of debate. Forensics II focuses more on execution and refinement of argument construction, logic, and persuasion to improve their debate skills. Each student will, at least temporarily, become a member of the Pine Crest Debate Team and will be required to earn 20 National Speech and Debate Association points.

## **VISUAL ARTS**

### **DIGITAL ARTS I**

#### **FULL YEAR – ONE CREDIT**

Digital Arts I develops students' foundational skills in elements and principles of design through the use of Adobe Photoshop CC, Adobe Illustrator CC, Tinkercad, and various other digital photography and video techniques. The course objective is for students to grasp digital art concepts and demonstrate improvement in design. Through a series of complex assignments, students will create logos, art posters, portraits, digital paintings and collages, animations, videos, and 3D prints. During the second semester of the course, students continue to expand their design skills to successfully execute complex projects using Adobe Creative Suite, Tinkercad, and The Zimmerman Family Innovation Lab. Projects mirror real-world design such as video art sculpture, animation and video shorts, and wearable art technology. Throughout the course, students study famous graphic designers, animators and videographers, develop their own personal portfolio, and complete theme-driven projects which prepare them for university-level studies.

### **ADVANCED DIGITAL ART AND DESIGN**

#### **FULL YEAR – ONE CREDIT**

In Advanced Digital Art and Design, students learn more advanced techniques of digital photography and design using Adobe Photoshop CC and Adobe Illustrator CC. They learn to combine digital techniques with traditional techniques by using sculpture, light, and sound to

make works of art. They also learn how to paint in Adobe Photoshop CC as if it were a traditional canvas, creating their own fabric and pattern design for printing. Additionally, students establish a more professional social media presence to use in their personal portfolio.

*Prerequisite: Digital Arts I*

### **DRAWING AND PAINTING I**

FULL YEAR – ONE CREDIT

Drawing and Painting I develops a foundation in drawing and painting skills and techniques, which increases artistic self-confidence. The fundamentals of composition, the principles of design, the basic techniques and concepts, and the visual elements of both drawing and painting are covered. Students will create realistic and abstract themed works of art from life and imagination using acrylic, watercolor, graphite, charcoal, colored pencils, and a variety of experimental media in this two-semester sequential studio art program.

### **DRAWING AND PAINTING II**

FULL YEAR – ONE CREDIT

The objective of Drawing and Painting II is to advance skills and techniques introduced in Drawing and Painting I. This course is of special interest to students who want more time for their portfolio presentation work. Using various drawing and painting topics and media, students continue to develop their drawing and painting skills, either as preparation for *AP Drawing* or *AP 2-D Studio Art*, or to satisfy their interests. In this course, students are expected to demonstrate an increased sophistication of skill, insight, and interest that is beyond the level which was shown in the beginning course. At this level, evaluations are more demanding and assignments are generally more conceptual in nature. No text is required; however, students frequently use in-class periodicals and reference books and perform online research.

*Prerequisite: Drawing and Painting I*

### **STUDIO ART DRAWING AP**

FULL YEAR – ONE CREDIT

In Studio Art Drawing AP, students must submit 15 total works to their Drawing Portfolio based on a central unified theme that they will return to throughout the year. This central theme, or “sustained investigation,” must show growth based on the interest of one subject or concept. Artworks are created through a wide range of approaches and media such as light and shade, line quality, rendering of form, composition, surface manipulation, and the illusion of depth. These are skills that can be addressed through a variety of means, including painting, printmaking, mixed media, etcetera. Using computer programs merely to manipulate photographs through filters, adjustments, or special effects is not appropriate for the Drawing Portfolio.

*Prerequisite: Drawing and Painting II and Dean/Department Approval*

### **STUDIO ART 2-D DESIGN AP**

FULL YEAR – ONE CREDIT

Studio Art 2-D Design AP involves purposeful decision-making about using the elements and

principles of art in an integrative way. In the 2-D Design Portfolio, students should demonstrate their understanding of design principles as applied to a 2-D surface. The principles of design (unity/variety, balance, emphasis, contrast, rhythm, repetition, proportion/scale, and figure/ground relationship) can be articulated through visual elements (line, shape, color, value, texture, and space). Any 2-D process or medium may be submitted, including, but not limited to, graphic design, digital imaging, photography, collage, fabric design, weaving, illustration, painting, and printmaking. Videotapes, 3-D works, and photocopies of student work in other media may not be submitted.

*Prerequisite: Digital Arts or Drawing and Painting I and/or II*

## **SCULPTURE AND CERAMICS I**

FULL YEAR – ONE CREDIT

The Sculpture and Ceramics I course develops a foundation of working with 3-D forms and materials. A strong emphasis is placed on the elements of art and principles of design, which will be reviewed through each assignment. Students will learn to observe and interpret the importance of art history, safety in the studio, and the materials used in sculpture. This course gives students the opportunity to explore and work with clay, wood, metal, plaster, wire, glazes and paints, and various other materials.

## **SCULPTURE AND CERAMICS II**

FULL YEAR – ONE CREDIT

Sculpture and Ceramics II builds upon the skills and techniques taught in Sculpture and Ceramics I. Students will create a wide variety of artwork using many different types of media. Course assignments are advanced and allow each individual student to develop their own unique style and artistic voice. Materials explored in this course include paper, clay, glazes, wood, metals, plaster, paints, found objects, styrofoam, and more.

*Prerequisite: Sculpture and Ceramics I*

## **STUDIO ART 3-D DESIGN AP**

FULL YEAR – ONE CREDIT

Studio Art 3-D Design AP is a college-level course where students work independently on a body of artwork throughout the year. The 3-D Art and Design Portfolio Exam contains two sections: Selected Works and the Sustained Investigation. The Selected Works section requires students to demonstrate skillful synthesis of materials, processes, and ideas. The Sustained Investigation section requires students to conduct a sustained investigation based on an inquiry of the student's choosing. The work in this section should reflect ongoing practice, experimentation, and revision. Both sections of the portfolios require students to articulate information about their work. Students will use the skills and techniques they learned in previous courses to complete up to 15 or more sculptures. Design involves purposeful decision-making about using the elements and principles of art in an integrative way. In the 3-D Design Portfolio, students should demonstrate an understanding of design principles as they relate to depth and space. The principles of design (unity/variety, balance, emphasis, contrast, rhythm, repetition,

proportion/scales, and figure/ground relationship) can be articulated through visual elements (mass, volume, color/light, form, plane, line, and texture).

*Prerequisite: Sculpture and Ceramics II*

### **SEMINAR IN VISUAL ARTS POST-AP**

This course's objective is to produce advanced work with instruction and support from faculty. Students in this course will experiment with mural painting, photography, website building, sculpture, spray paint, oil painting, drawing, and design. Students will work with materials and media that they may not have experienced thus far on their AP Art path. These techniques will be honed to prepare students for emergence in the real world of art. They are also encouraged to enter at least two local, state, or national art shows/competitions during the year. Design insight, individual expression, and artistic maturity are required in this advanced art course. Students will participate in a wheel rotation of specific engaging units such as printmaking, ceramics, fabric arts, and applied digital arts. These units will enable a more engaging, in-depth study, acquisition, and application of artistic skills in a variety of art mediums. The course culminates in a senior art show. Moreover, students have opportunities to work with materials and media that they may previously not have experienced on their AP Art path.

*Prerequisite: One or More Studio Art AP courses.*

### **VISUAL ARTS AND DIGITAL MEDIA DESIGN**

FULL YEAR – ONE CREDIT

In the Visual Arts and Digital Media Design course, students acquire skills in advanced publishing techniques, copywriting, editing, photography, and digital page design, while producing a creative and innovative edition of *The Crestian*. This book chronicles Pine Crest School events and serves as a historical record of the community (students, faculty, and staff) for a particular school year. This course has a strong emphasis on journalism skills, and therefore, students are assigned challenging real-world projects and assignments that are typical of the graphic design and publishing industries. Participants apply for positions within the editorial team, the production team, or the business team. In their roles, students will gain useful skills in time management, teamwork, problem solving, design principles, and marketing.

# PHYSICAL EDUCATION

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*The Physical Education (PE) Department provides opportunities for instruction and participation in physical activity and opportunities to integrate related knowledge impacting health and human performance. The goal is for students to practice healthy and active lifestyles, becoming the well-rounded student who personifies “a healthy mind in a healthy body.”*

*Two semesters of PE are required. A semester credit may be earned by taking a class on campus or by participating in a sport on or off campus. Off-campus sports will NOT fulfill the PE requirement if the sport is offered at Pine Crest. Requirements may be satisfied over a two-year period. Students may opt for PE classes beyond the graduation requirements; however, no credit will be awarded and the course will not appear on the report card or on the transcript.*

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## **HEALTH**

### **SEMESTER ONE OR TWO (TWO DAYS PER WEEK) – ONE-HALF CREDIT**

This course addresses key teen health and wellness topics. Students explore the most pertinent and up to date information regarding CPR and first aid, emotional and behavioral health, nutrition and fitness, as well as relevant anatomy and physiology. Teachers will use a variety of learning activities and student experiences to allow for thought provoking and engaging instruction. The Health component is required in the freshman year. Students may fulfill this requirement in the summer prior to the ninth grade as part of the Pine Crest Summer Programs, or in semester one or semester two of the ninth grade year.

## **PHYSICAL EDUCATION – PERFORMANCE TRAINING**

### **SEMESTER ONE OR TWO (THREE DAYS PER WEEK) – ONE-HALF CREDIT**

Performance Training is designed to provide the student an opportunity to engage in a variety of programs that improve their athletic performance. Programs are developed using best practices from fields such as kinesiology, biomechanics, functional movement, and other areas of the sport sciences. Topics that may be explored include strength training, plyometric training, speed and agility training, psychology of sports, sports nutrition, and flexibility. Tests using the latest technology are used to determine measurements of power, speed, flexibility, strength, and conditioning in order to track and evaluate student progress.

## **PHYSICAL EDUCATION AND HEALTH FOR DANCE STUDENTS**

### **FULL YEAR – ONE CREDIT**

The following courses, when combined with the Health component (one day per week for a full year), satisfy the physical education and health requirements: Advanced Ballet, Ballet Beginner/Intermediate, Contemporary World Dance Survey, and Introduction to Dance I.

## **FULL CREDIT COURSES OFFERED IN SUMMER ONLY**

### **ONLINE CREATIVE WRITING HONORS**

Creative Writing Honors explores the power of storytelling. Looking to current authors for inspiration, students will develop their voices and style through a variety of writing exercises. Written pieces will include vignettes of various styles, flash fiction, short stories, and narrative poetry. Students share works in progress, provide constructive criticism to peers, write in response to exercises and prompts, and complete reading assignments. Students leave this course with a portfolio of work and a toolbox of advanced strategies for all stages of the writing process. These strategies are intentionally incorporated throughout the writing units for maximum exposure.

### **RESEARCH METHODS IN MOLECULAR BIOLOGY**

Research Methods in Molecular Biology introduces students to a broad range of molecular techniques currently used by scientists in the research laboratory. The objectives of the program are twofold: 1). provide students with exposure to a variety of research methods and 2). provide students with the necessary tools to engage in and conduct scientific experiments at the bench. Using a project-based approach, the course progresses from a survey of basic lab techniques to the application of current molecular biology techniques. Working in small groups, through hands-on experimentation, literature review, and discussion-based learning, students will come up with a research question that can be investigated using advanced technology including nucleic acid extraction, PCR, DNA sequencing tools, gene editing tools and data and statistical analysis to examine and interpret student-generated questions. As communication is an important component of conducting research, students will keep a record of research skills in a lab notebook and present their findings, symposium style, at the end of the course. Students will have the opportunity to submit their work to Pine Crest's Research in the Pine online school journal in the fall of the next academic year.

Successful completion of Research Methodology in Molecular Biology is separate from the requirements of the Science Research program.

## **HALF CREDIT COURSES OFFERED IN SUMMER ONLY**

### **CODING IN JAVA HONORS**

Coding in Java is designed to introduce students to the fundamentals of computer programming with Java. Students learn about the relevance and influence of Java in computer science, as well as how to design and implement programs using object-oriented features and libraries. Students become familiar with debugging concepts and techniques using the jGrasp integrated development environment. Topics covered in this course include, but are not limited to, data types, program organization, control structures, classes and objects, methods, encapsulation, and the array data structure. Throughout this course, students design text-based and graphics

applications as they develop their computational thinking and problem-solving skills. This course is offered in an accelerated three-week format.

### **CONSTITUTIONAL LAW HONORS IMMERSION TRIP**

The primary content for Constitutional Law Honors pertains to the study of major legal precedents and evolving judicial interpretations associated with the United States Constitution. Content could include, but is not limited to, the evaluation of historical and contemporary constitutional dilemmas through an analysis of legal documents, processes, and cases; examination of the evolution of constitutional government from ancient times to the present; arguments in support of our republican form of government; a comparison between the constitutional frameworks of other nations with that of the United States; a review and application of major Supreme Court decisions and the impact of both majority and minority opinions; the understanding of constitutional concepts and provisions establishing the power of the courts including separation of powers, checks and balances, the rule of law, an independent judiciary, and judicial review; and appellate processes and procedures to address constitutional questions. Course activities will include both classroom instruction and on-site research, with opportunities for experiential learning and travel.

### **MUSICAL THEATER IMMERSION TRIP**

Musical Theater will explore a variety of topics, including audition preparation, monologue review, character development, and small scene rehearsal. Through active class participation, students will refine their musical theater abilities. A five-day tour to New York City will involve students in workshop programs hosted by Broadway directors, actors, and choreographers. Course activities will include both classroom instruction and on-site research, with opportunities for experiential learning and travel.

**[WWW.PINECREST.EDU/ACADEMICADVISING](http://WWW.PINECREST.EDU/ACADEMICADVISING)**