# Course Catalog 2023-2024



# Santa Clara High School

-Catholic College Preparatory-

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Web Site: www.SantaClaraHighSchool.com School Code: 052300

Santa Clara High School provides for the needs of the college-bound student. The school's curriculum meets all state, archdiocesan and college entrance requirements. Students must complete a minimum of 240 units. Each semester completed with a passing grade is equivalent to 5 units.

#### Academic Requirements for Graduation

English	4 years	40 units	
Religion	4 years	40 units*	
Math	3 years	30 units	(4 years recommended)
Social Science	3 years	30 units	
Science	2 years	20 units**	(3 years recommended)
Foreign Language	2 years	20 units	(3 yrs recommended; same language)
Visual & Performing Arts	1 year	10 units	
PE	1 year	10 units	
Physical Science	½ year	5 units	
Health	½ year	5 units	
Electives	4 years	40 units	

<sup>\*</sup>transfer students are required to complete 10 units per year of attendance at Santa Clara High School

Additional graduation requirements, eligibility to participate in senior activities and graduation ceremony, and receipt of diploma are identified in the Student Handbook.

The Santa Clara grade point average (GPA) is calculated based on all courses. Each grade is given a specific number of points as follows:

A, A-	4.0
B+, B, B-	3.0
C+, C, C-	2.0
D+, D, C-	1.0
F	0

A grade of A, B, or C in an Honors or Advanced Placement course earns an extra point (e.g. A=5.0) in the GPA calculation and is reflected in the Weighted GPA.

UC/CSU approval: These courses have been approved to meet admission requirements for all University of California and California State University schools. Honors/AP weighting is identified next to this, if applicable.

Based on student interest and registration for specific classes, some courses may be taught through an independent study option (APEX) with Santa Clara High School teachers as facilitators. These courses are identified with (APEX) next to the course title.

Additional fees required for specific classes (e.g. laboratory classes, AP courses) are identified with the course description.

Prerequisites for moving to second level or higher in a subject area requires successful completion of earlier level.

<sup>\*\*</sup>one year life and one year physical

# **English Department**

4 years (40 units) required for graduation

# **English I**

Year: 10 units Grade 9

Prerequisite: None UC/CSU: Approved

This course challenges each student in verbal and written skills through the rigorous exercises of reading and writing. Each student is encouraged to improve writing style through the study of grammar and vocabulary. This course is the study of the basics of English: grammar, sentence structure, vocabulary, spelling, and composition. A literature component focuses on the major genres of the short story, poetry, drama, and nonfiction. The course includes the development of library and study skills.

#### **English I Honors**

Year: 10 units Grade 9

Prerequisites: Test scores, placement essay, previous achievement in English, teacher evaluations

UC/CSU: Approved; not weighted

This enrichment course is a concentrated study of literature and composition, combining the essentials of both 9th and 10th grade English and introducing examples of American literature. This course presupposes a knowledge of basic grammar, although there will be a review of grammar included in the course. The course also presupposes a facility in both reading and writing, the maturity for some independent, self-directed study and the enthusiasm for challenge. The student is selected by the English department on the basis of test scores, previous achievement in English, and the placement essay written on the day of the entrance exam.

#### **English II**

Year: 10 units Grade 10

Prerequisite: English 1 UC/CSU: Approved

This course challenges each student in verbal and written skills through the rigorous exercises of reading and writing. This course is a genre survey course that continues the study of grammar, literature, vocabulary, and written expression.

#### **English II Honors**

Year: 10 units Grade 10

Prerequisites: B+ or better in English I Honors or A in English I both semesters; teacher recommendation, STAR

testing

UC/CSU: Approved

This course emphasizes the appreciation and analysis of literature, focusing on such genres as poetry, the novel, short story, mythology, and drama. The course encourages response to literature through oral presentations, individual projects, and a variety of writing assignments including analytical and expository essays and creative writing. Extensive grammar and vocabulary study supplement the study of literature and writing.

# **English III**

Year: 10 units Grade 11

Prerequisite: English 2 UC/CSU: Approved

This course is about American Literature. Students are exposed to a broad range of American Literature from pre-exploration to the present. Major literary movements such as Romanticism, Realism, Transcendentalism, Anti-Transcendentalism and Existentialism are defined and explored.

#### **English III Honors**

Year: 10 units Grade 11

Prerequisites: B+ or better in English II Honors or A in English II both semesters; teacher recommendation, STAR

testing

UC/CSU: Approved, weighted

The purpose of this course is to expose students to a broad range of American literature within a variety of genres. Major literary movements within American literature will be defined and explored. Upon completing English III, students, as readers, should be able to respond personally, aesthetically and critically to diverse texts. This involves collecting facts and ideas, discovering relationships and making inferences through critical judgments, analyses, evaluations and the drawing of conclusions. Throughout this course, students will communicate in the written form, as well as in the oral form, in order to express their ideas on different topics and for different purposes (e.g. argumentative, informative and narrative). The skills students learn in this course will greatly aid them in their senior year when a greater mastery of the above skills will be required. As an honors level course, more time will be spent exploring complex elements of each of the main forms of writing. Extra attention to logical and rhetorical elements and processes will be given to each treatment of the curriculum. Students will be expected to transition from "learning to write" to "writing to learn" during this course.

#### **AP English Language and Composition**

Year: 10 units Grade 11

Prerequisites: A in English II Honors or A+ in English II both semesters, teacher recommendation, STAR testing

Required: AP fee; AP test must be taken

UC/CSU: Approved; approved for weighted GPA point

This course is an introductory level college course. American literature is introduced thematically and chronologically. However, nonfiction is the genre emphasized throughout the curriculum for the purpose of studying language and rhetoric.

#### **English IV**

Year: 10 units Grade 12

Prerequisite: English III UC/CSU: Approved

This course challenges each student in verbal and written skills through the rigorous exercise of reading and writing. Each student is encouraged to improve writing style through the study of grammar, vocabulary, and prose models. This course provides a survey of various literary genres in world literature, challenging each student to raise the level of reading comprehension and appreciation of artistic expression from various cultures and times through verbal and written responses to the readings.

#### **English IV Honors**

Year: 10 units Grade 12

Prerequisites: B+ or better in English III honors or A in English III both semesters, teacher recommendation, STAR

testing

UC/CSU: Approved

The purpose of this course is to expose students to a broad range of world literature within a variety of genres. Major literary movements that contributed to the western canon will be defined and explored. Upon completing English IV, students, as readers, should be able to respond personally, aesthetically and critically to diverse texts. This involves collecting facts and ideas, discovering relationships and making inferences through critical judgments, analyses, evaluations and the drawing of conclusions. Throughout this course, students will communicate in the written form, as well as in the oral form, in order to express their ideas on different topics and for different purposes (e.g. argumentative, informative and narrative). The skills students learn in this course will greatly aid them in preparation for college level writing and reading. As an honors level course, more time will be spent exploring complex elements of each of the main forms of writing. Extra attention to logical and rhetorical elements and processes will be given to each treatment of the curriculum

#### **AP English Literature and Composition**

Year: 10 units Grade 12

Prerequisites: B+ in AP English Language, A in English III Honors, or A+ in English IV both semesters; teacher recommendation, STAR testing

Required: AP fee; AP test must be taken

UC/CSU: Approved; Approved for Weighted GPA Point

This course is designed to engage students in a close reading of works of merit. The class focuses on close reading and analysis in a broad selection of texts. Students actively experience, interpret, and evaluate representative works of poetry, prose, and drama from across time periods and cultures.

# Foreign Language Department

2 years (20 units) of the same foreign language required; 3 years recommended.

# Spanish I

Year: 10 units Grade 9 - 12 Prerequisite: None UC/CSU: Approved

In this introductory Spanish course students will develop a basic level of listening, speaking, reading and writing skills. Within a communicative approach, students will build vocabulary, grammar and pronunciation. At the same time, students will learn about the history, culture, and customs of Hispanic countries, acquiring some insight into how languages and cultures work.

#### Spanish II

Year: 10 units Grade 9 - 12

Prerequisite: Passing grade in Spanish 1

UC/CSU: Approved

During this course students review, strengthen, and amplify the basic knowledge and skills acquired in Spanish I. This intermediate level builds upon effective strategies to further develop interpersonal communication through listening, reading, speaking and writing within the communicative approach. Spanish will become the main form of communication in the class. The study of Hispanic culture, products and practices is expanded.

#### **Spanish III**

Year: 10 units Grade 9 - 12

Prerequisite: C or better in Spanish II

UC/CSU: Approved

During this course, students review, strengthen, and amplify the basic knowledge and skills acquired in Spanish II. This intermediate level builds upon effective strategies to further develop interpersonal communication through listening, reading, speaking and writing within the communicative approach. Spanish will become the main form of communication in the class. The study of Hispanic culture, products and practices is expanded. Particular emphasis is placed on developing the skills necessary for the students to achieve success in the AP course.

#### AP Spanish Language and Culture

Year: 10 units Grade: 11-12

Prerequisite: passing grade in Spanish III

UC/CSU: Approved

AP Spanish Language and Culture is equivalent to an intermediate level college course in Spanish. Students cultivate their understanding of Spanish language and culture by applying interpersonal, interpretive, and presentational modes of communication in real-life situations as they explore concepts related to family and communities, personal and public identities, beauty and aesthetics, science and technology, contemporary life, and global challenges.

# **Mathematics Department**

3 years (30 units) required; 4 years recommended

# Algebra I

Year: 10 units Grade 9

Prerequisite: None UC/CSU: Approved

Required: Use of a TI-83 or TI-84 graphing calculator

In this course, students learn to reason symbolically and the complexity and type of equations and problems that they are able to solve increase dramatically as a consequence. The key content for this course involves understanding, writing, solving and graphing linear equations, including systems of two linear equations in two unknowns. Students also become comfortable with operations on monomial and polynomial expressions. They learn to solve problems employing a variety of techniques and extend their mathematical reasoning in many important ways, justifying steps and checking algebraic arguments for validity.

#### Algebra I Honors

Year: 10 units Grade 9

Prerequisites: Placement exam testing, previous achievement in Math, teacher recommendation

UC/CSU: Approved; not weighted

Required: Use of a TI-83 or TI-84 graphing calculator

A more advanced course where students learn to reason symbolically and the complexity and type of equations and problems that they are able to solve increase dramatically as a consequence. The key content for this course involves understanding, writing, solving and graphing linear equations, including systems of two linear equations in two unknowns. Students also become comfortable with operations on monomial and polynomial expressions. They learn to solve problems employing a variety of techniques and extend their mathematical reasoning in many important ways, justifying steps and checking algebraic arguments for validity. Additional emphasis is placed on expanding analytical thought process by applying concepts learned to solve real world problems.

#### Geometry

Year: 10 units Grade 9 - 11

Prerequisite: Passing grade in both semesters of Algebra I taken in high school.

Prerequisites for incoming 9th graders: Placement exam and successful completion of Algebra I with a B+ or better,

teacher recommendation UC/CSU: Approved

Required: Use of a TI-83 or TI-84 graphing calculator

This course introduces the concept of points, lines, and angles, parallel and perpendicular lines, accuracy and precision with measurement, the concepts of two and three-dimensional figures, and how to apply inductive and deductive reasoning. The course covers triangle congruence and how to write proofs, construction and understanding of bisectors, medians, and altitudes of triangles, inequalities comparing triangles, and the properties of various quadrilaterals. The course covers similarity of figures, right triangles, and transformations, proportional parts of triangles and proportional relationships between similar triangles, the Pythagorean Theorem, and trigonometric ratios.

#### **Geometry Honors**

Year: 10 units Grade 9 - 10

Prerequisites for Incoming 9th graders: Placement exams and successful completion of Algebra I Honors with a B+ or better or A in Algebra I for the year, teacher recommendation

Prerequisites 10th graders: A in Algebra I both semesters, or successful completion of Algebra I Honors with a B+ or better both semesters; teacher recommendation, STAR testing

UC/CSU: Approved

Required: Use of a TI-83 or TI-84 graphing calculator

An advanced course which introduces the concept of points, lines, and angles, parallel and perpendicular lines, accuracy and precision with measurement, the concepts of two and three-dimensional figures, and how to apply inductive and deductive reasoning. This course covers triangle congruence, and how to write proofs, construction and understanding of bisectors, medians, and altitudes of triangles, inequalities comparing triangles, and the properties of various quadrilaterals. The course covers similarity of figures, right triangles, and transformations, proportional parts of triangles and proportional relationships between similar triangles, the Pythagorean Theorem; trigonometric ratios, and reflections, translations, rotations, dilations, and vectors. The course teaches students how to calculate measures in two and three dimensions, find the areas of polygons, circles, and irregular or composite figures; the special properties of circles, inscribed and circumscribed polygons, tangents, and secants, the volume of three-dimensional figures, the identification of congruent or similar solids, and graph solids in space.

#### Algebra II

Year: 10 units Grade 9-12

Prerequisite: Passing grade in both semesters of high school Geometry

Prerequisites for incoming 9th graders: placement exams and successful completion of Geometry with a B + or

better for both semesters UC/CSU: Approved

Required: Use of a TI-83 or TI-84 graphing calculator

This course complements and expands the mathematical content and concepts of Algebra I and Geometry. Students who master Algebra II will gain experience with algebraic solutions of problems in various content areas, including the solution of systems of quadratic equations, logarithmic and exponential functions, the binomial theorem, and the complex number system.

#### **Algebra II Honors**

Year: 10 units Grade 9-12

Prerequisites: B+ in both semesters Geometry Honors or A in both semesters of Geometry; B in Algebra I Honors or

A in both semesters of Algebra I, teacher recommendation; STAR testing

UC/CSU: Approved

Required: Use of a TI-83 or TI-84 graphing calculator

This course complements and expands the mathematical content and concepts of Algebra I and Geometry. Students who master Algebra II will gain experience with algebraic solutions of problems in various content areas, including the solution of systems of quadratic equations, logarithmic and exponential functions, the binomial theorem, and the complex number system. This course is designed to prepare students for Pre-Calculus.

#### **Pre-Calculus**

Year: 10 units Grade 10- 12

Prerequisites: Passing grade in both semesters of Algebra II, STAR testing

UC/CSU: Approved

Required: Use of a TI-83 or TI-84 graphing calculator

This class covers topics of linear functions and systems of equations, functions and their graphs, polynomial functions, rational functions, conic sections and exponential functions. Special attention is paid to students'

expression of mathematical concepts in written form including reading, interpreting, and solving word problems and expressing solutions symbolically and verbally in spoken and written form. Students learn basic trigonometric functions and their relationships in right triangles. As the course advances, students learn about trigonometric identities and solving trigonometric equations. This is followed by a study of parametric equations and vectors. The class concludes with the study of de Moivre's Theorem and complex roots of numbers

#### **Pre-Calculus Honors**

Year: 10 units Grade 10-12

Prerequisites: B+ in both semesters of Algebra II/Trig Honors or A in Algebra II both semesters; teacher

recommendations, STAR testing

UC/CSU: Approved; Approved for Weighted GPA Point Required: Use of a TI-83 or TI-84 graphing calculator

This class is an advanced course that covers topics of linear functions and systems of equations, functions and their graphs, polynomial functions, rational functions, conic sections and exponential functions. Special attention is paid to students' expression of mathematical concepts in written form including reading, interpreting, and solving word problems and expressing solutions symbolically and verbally in spoken and written form. Students learn basic trigonometric functions and their relationships in right triangles. As the course advances, students learn about trigonometric identities and solving trigonometric equations. This is followed by a study of parametric equations and vectors. The class concludes with the study of de Moivre's Theorem and complex roots of numbers. There is a short look at limits, derivatives and anti-derivatives at the end if time permits.

#### **AP Calculus AB**

Year: 10 units Grade 11-12

Prerequisites: B+ in Honors Pre-Calculus both semesters or A in Pre-Calculus both semesters, teacher

recommendation

Required: AP fee, AP test must be taken; Use of a TI-83 or TI-84 graphing calculator

UC/CSU: Approved; Approved for Weighted GPA Point

This course is a first course in Calculus and is designed to develop students' understanding with the goal of passing the AP Calculus AB exam. Students become familiar with the concepts of Calculus through the rule of four. They develop understanding through algebraic, numeric, graphical, and verbal expression of problems and their solutions. These understandings are used to develop solutions to problems from real world situations and from past AP exams. Concepts covered in this course are functions and their graphs including trigonometric and exponential functions, limits, continuity, derivatives, and their properties, interpretation of the graphs of derivatives and second derivatives, the definite integral, rectangular and trapezoidal area sums, and Riemann sums, anti-derivatives, the Fundamental Theorem of Calculus, basic differential equations, using integrals to find volumes of pyramidal figures and solids of rotation, and using derivatives to do a variety of optimizations.

#### **Statistics**

Semester: 10 units Grade 11 - 12

Prerequisite: Passing grade in both semesters of Algebra II

UC/CSU: Approved

Required: Use of a TI-83 or TI-84 graphing calculator, Lab Fee

This course is intended as an option for students who are interested in completing four years of math but are not interested in taking Pre-Calculus and/or AP Calculus. This course is designed to improve students' analytical skills using real world data and applications in the social sciences. Topics included are population, sampling, variables, frequency distributions, descriptive statistics, variance, standard deviation, probability, normal and binomial distributions, linear correlation, and regression models.

# **Physical Education Department**

1 year (10 credits) P.E. including Health course required

# **Physical Education**

Year: 10 units Grade 9

Prerequisite: None UC/CSU: Not approved

This course is required for all freshmen over two semesters at SCHS in which the instructor promotes positive attitudes towards health and exercise. This course prepares students to be health literate and physically educated allowing them to improve personal, family, and public health. Students develop and maintain fitness levels through physical activity and the use of motor skills. Students also learn how to be successful team players through team activities.

# **Religion Department**

4 years (40 units) required for graduation

#### Jesus' Revelation

Semester: 5 units

Grade 9

Prerequisite: None UC/CSU: Not approved

This course will give students a general knowledge and appreciation of the Sacred Scriptures. Through their study of the Bible, they will come to encounter the living Word of God, Jesus Christ. They will learn about the Bible, authored by God through Inspiration, and its value to people throughout the world. If they have not been taught this earlier, they will learn how to read the Bible and will become familiar with the major sections of the Bible and the books included in each section. The students will pay particular attention to the Gospels, where they may grow to know and love Jesus Christ more personally (USCCB, Doctrinal Elements of a Curriculum Framework, 2008).

#### Who is Jesus?

Semester: 5 units

Grade 9

Prerequisite: None UC/CSU: Not approved

The purpose of this course is to introduce students to the mystery of Jesus Christ, the living Word of God, the Second Person of the Blessed Trinity. In this course, students will understand that Jesus Christ is the ultimate Revelation to us from God. In learning about Who He is, the students will also learn who He calls them to be (USCCB, Doctrinal Elements of a Curriculum Framework, 2008).

#### Jesus' Mission

Semester: 5 units

Grade 10

Prerequisite: None UC/CSU: Not approved

The purpose of this course is to help students understand all that God has done for us through his Son, Jesus Christ. Through this course of study, students will learn that for all eternity, God has planned for us to share eternal happiness with him, which is accomplished through the redemption Christ won for us. Students will learn that they share in this redemption only in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entails (USCCB, Doctrinal Elements of a Curriculum Framework, 2008).

#### Jesus' Mission: Church

Semester: 5 units

Grade 10

Prerequisite: None UC/CSU: Not approved

The purpose of this course is to help the students understand that in and through the Church they encounter the living Jesus Christ. They will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by him through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today. This Body has both divine and human elements. In this course, students will learn not so much about events in the life of the Church but about the sacred nature of the Church (USCCB, Doctrinal Elements of a Curriculum Framework, 2008).

#### **Sacraments: Encountering Jesus**

Semester: 5 units

Grade 11

Prerequisite: None UC/CSU: Not approved

The purpose of this course is to help students understand that they can encounter Christ today in a full and real way in and through the Sacraments, and especially through the Eucharist. Students will examine each of the Sacraments in detail so as to learn how they may encounter Christ throughout life (USCCB, Doctrinal Elements of a Curriculum Framework, 2008).

#### Life in Jesus

Semester: 5 units Grade 11

Prerequisite: None UC/CSU: Not approved

The purpose of this course is to help students understand that it is only through Christ that they can fully live out God's plans for their lives. Students are to learn the moral concepts and precepts that govern their lives as Christ's disciples (USCCB, Doctrinal Elements of a Curriculum Framework, 2008).

#### Responding to Jesus' Call

Semester: 5 units

Grade 12

Prerequisite: None UC/CSU: Not approved

The purpose of this course is to help students to understand the vocations of life: how Christ calls us to live. In this course, students should learn how all vocations are similar and how they differ. The course should be structured around married life, single life, priestly life, and consecrated life. Students should learn what it means to live life for the benefit of others and the value in considering a vocation in service to the Christian community (Elements of a Curriculum Framework, 2008).

#### **Church History**

Semester: 5 units

Grade 12

Prerequisite: None UC/CSU: Not approved

The purpose of this course is to present a catechesis of the Church: The Body of Christ in history: its nature and meaning, images, marks, life and ministry, guide to moral life, and the role of prayer. This course supplies the students with a general knowledge of the Church's history from apostolic times to the present. Students will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by Him throughout history through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today and as such, has both divine and human elements. In this course, students will learn about the Church's 2,000 years of history and about how the Church is led and governed by the successors of the Apostles. (USCCB, Doctrinal Elements of a Curriculum Framework, 2008).

# **Science Department**

2 years (20 units) required for graduation; 3 years recommended. (1 year Life Science and 1 year Physical Science)

# **Physical Science**

Semester: 5 units

Grade 9

Prerequisite: None Required: Lab Fee UC/CSU: Approved

This course introduces the student to the main concepts of physical science to better prepare the student for the other science courses offered at the school in later grades including Biology, Chemistry, and Physics. In this course, topics covered include Motion, Energy, Waves, Matter, Reactions, Earth, and Space. The student will review the scientific method and proper scientific procedures.

#### Health

Year: 5 units Grade: 9

Prerequisite: none

UC/CSU: pending approval

Health is a one-semester course that will focus on various aspects of health such as mental, physical, emotional, spiritual, intellectual and social. Throughout the term we will cover topics such as personal values, communication, relationships, adolescence, nutrition, benefits of exercise on body, heart rate and exercise, stress on the body, food and consumerism, goals, decision making, stereotypes, alcohol and drugs, violence and sexual education. Students will be introduced to topics that will prepare them for further study in Biology.

#### **Biology**

Year: 10 units Grade 10

Prerequisite: None Required: Lab Fee UC/CSU: Approved

This course focuses on the study of life by examining the fundamental concepts of cellular biology, genetics, ecology, and physiology. The scientific process and laboratory skills are emphasized along with biology's connections to other scientific disciplines. Students learn scientific writing skills and examine current biological issues.

# **Biology Honors**

Year: 10 units Grade 10

Prerequisites: B+ in Algebra I/Algebra I Honors or Geometry/Geometry Honors both semesters, teacher

recommendation, STAR testing

Required: Lab Fee, Science Fair participation

UC/CSU: Approved; not weighted

This course focuses on the study of life by examining more detailed concepts of cellular biology, genetics, ecology, and physiology. The scientific process and laboratory skills are emphasized along with biology's connections to other scientific disciplines. Students learn scientific writing skills and also examine current biological issues.

# Chemistry

Year: 10 units Grade 10-11

Prerequisites: Passing grade in Biology both semesters; concurrently enrolled in Algebra II (or completed)

Required: Lab Fee UC/CSU: Approved

In this course, students demonstrate their knowledge of atoms and molecules, elements of chemistry, atoms and their subatomic particles, the atomic nucleus, models of the atom, chemical bonding, molecular shapes, molecular mixing, water molecules, chemical reactions, acids and bases, oxidation and reduction, organic compounds, chemicals of life, the chemistry of drugs, optimizing food production, freshwater resources, air resources, material resources, and energy resources. The scientific process and laboratory skills are emphasized.

#### **Chemistry Honors**

Year: 10 Units Grade:10-11

Prerequisites: B+ or better in Geometry/ Geometry Honors or Algebra II both semesters; B+ or better in Biology both semesters or B+ or better in Honors Biology both semesters, teacher recommendation, STAR testing

Required: Lab Fee, Science Fair participation

UC/CSU: Approved; approved for weighted GPA point

In this more advanced course, students demonstrate their knowledge of chemistry by studying the following topics: scientific method, classification of matter, chemistry of our lives, measurements in chemistry, matter and energy, atoms and elements, names and formulas of compounds, chemical quantities, chemical reactions, chemical quantities in chemical reactions, electron structures, periodic trends, molecular structures of solids and liquids, gases and their behaviors, solutions, chemical equilibrium, acids and bases, oxidation and reduction reactions, nuclear radiation, organic chemistry, and biochemistry. The scientific process and laboratory skills are emphasized.

#### **Physics**

Year: 10 Units Grade 11-12

Prerequisites: B+ in Honors Chemistry both semesters or B+ in Chemistry both semesters; B+ in Algebra II/Algebra II Honors both semesters, teacher recommendation, STAR testing

Required: Lab Fee, Science Fair participation

UC/CSU: Approved

This is an introductory Physics course providing an awareness of and appreciation for the physical environment. Topics covered include mechanics, heat, sound, light, electricity and magnetism. Students will concentrate on using their ability to read, think and formulate questions.

#### **Anatomy and Physiology**

Year: 10 units Grade 12

Prerequisites: Passing grade in Honors Chemistry both semesters or passing grade in Chemistry both semesters

teacher recommendation, STAR testing

Required: Lab Fee UC/CSU: Approved

Anatomy and Physiology explores the systems comprising the human body by emphasizing physiological mechanisms and a thorough understanding of human anatomy. An emphasis is placed on the interrelatedness of such systems as the skeletal, muscular, nervous, and circulatory. This course will require laboratory components (i.e. dissections).

#### **AP Environmental Science**

Year: 10 Units Grade 12

Prerequisites: B+ in Honors Chemistry both semesters or B+ in Chemistry both semesters; B+ in Algebra II/Algebra

II Honors both semesters, teacher recommendation, STAR testing

Required: Lab Fee, Science Fair participation

UC/CSU: Approved

The AP Environmental Science course is designed to engage students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography.

# **Social Science Department**

3 years (30 units) required

## **World History**

Year: 10 units Grade 10

Prerequisite: None UC/CSU: Approved

This course examines the historical cultures, peoples, and events beginning with the ancient Greeks and culminating with the early 21st century. Students will acquire a broad knowledge of civilizations, culture, and events through lectures and their textbook. We will also take a deeper look at important events, influential figures, and facets of culture through activities, research, supplemental readings, films, projects, mini lectures, and essays. The course will also focus on understanding major historical shifts and changes, cause and effect, analyzing historical events from multiple points of view, and examining evidence so students may form their own educated opinions on some of history's numerous controversies.

#### **Honors World History**

Year: 10 units Grade: 10

Prerequisites: A in English 9 both semesters or B+ in Honors English 9, teacher recommendation, STAR testing

UC/CSU: pending approval

Honors World History is an academically rigorous course that takes a global approach to the study of world history by exploring the inter-regional connections and global themes that connect our world today. The course involves comprehensive note-taking and is largely based on one main text supplemented by primary and secondary sources. It requires students to analyze historical content and employ critical thinking skills to explore our world's narrative thematically from its foundations through much of the twentieth century.

#### **AP European History**

Year: 10 units Grade 10

Prerequisites: A in English 9 both semesters or B+ in Honors English 9, teacher recommendation, STAR testing

Required: AP fee; AP test must be taken

UC/CSU: Approved; Approved for Weighted GPA Point

This advanced placement course covers European History from the era of the Renaissance to modern times, focusing not only on traditional political events but also social, literary, musical, and artistic achievements. Through lecture, discussion, reading, group projects, and primary source research, students develop a mature understanding of European History and prepare for the required college level Advanced Placement examination.

#### **U.S. History**

Year: 10 units Grade 11

Prerequisite: None UC/CSU: Approved

This course is designed to provide students with the analytical skills and factual knowledge necessary to critically evaluate the events and problems inherent in the study of U.S. History. Students learn to assess historical data for relevance, reliability, and relative importance, weigh various perspectives and interpretations, and communicate effectively their conclusions.

#### **Honors U.S. History**

Year: 10 units Grade: 11

Prerequisites: B+ or better in AP European History and English 10 Honors; or A- in World History and English 10

both semesters, teacher recommendation, STAR testing

UC/CSU: pending approval

In this course students will study the major turning points in American history in the twentieth century. Following a review of the nation's beginnings and the impact of the Enlightenment on U.S. democratic ideals, students build upon their world history studies to understand the emergence and impact of new technology and a corporate economy, including the social and cultural effects. They trace the change in the ethnic composition of American society; the movement toward equal rights for racial minorities and women; and the role of the United States as a major world power. The role of the federal government and federal courts as well as the roles of state governments are studied. Students consider the major social problems of our time and trace their causes in historical events.

#### AP U.S. History

Year: 10 units Grade 11

Prerequisites: B+ or better in AP European History and English 10 Honors; or A- in World History and English 10

both semesters, teacher recommendation, STAR testing

Required: AP fee; AP test must be taken

UC/CSU: Approved; approved for Weighted GPA Point

This college-level course is designed to provide students with an opportunity to learn and to practice the skills necessary to successfully engage college-level material, develop the confidence to engage in high-quality, self-directed study, and to perform up to their full abilities on the United States History Advanced Placement Exam.

#### Government

Semester: 5 units Grade 12

Prerequisite: None UC/CSU: Approved

In this course, students pursue a deeper understanding of the institutions of American government. They compare systems of government in the world today and analyze the history and changing interpretations of the Constitution, the Bill of Rights, and the current state of the legislative, executive, and judiciary branches of government. An emphasis is placed on analyzing the relationship among federal, state, and local governments with particular attention paid to important historical documents such as the Federalist Papers. There is additional emphasis placed on international theories of government as well as many landmark Supreme Court decisions. These standards represent the culmination of civic literacy as students prepare to vote, participate in community activities, and assume the responsibilities of citizenship.

#### **Economics**

Semester: 5 units Grade 12

Prerequisite: None UC/CSU: Approved

In this course, students master fundamental economic concepts, applying the tools (graphs, statistics, equations) from other subject areas to the understanding of operations and institutions of economic systems. Studied in an historic context are the basic economic principles of micro and macroeconomics, international economics, comparative economic systems, measurement, and methods.

#### **Honors Government**

Year: 5 units Grade: 12

Prerequisites: B+ in AP US History and AP English Lang/Comp both semesters; or an A -in US History and English

11 both semesters, teacher recommendation, STAR Testing

UC/CSU: pending approval

This course is designed for students with strong ability and interest in social studies who want an in-depth political science course using advanced analytical and educational skills. The course covers political and economic theory, the processes and institutions of federal, state, and local government, the influence of public opinion and media, and civil rights and civil liberties. Current political issues are discussed at length.

#### **Honors Economics**

Year: 5 units Grade: 12

Prerequisites: B+ in AP US History and AP English Lang/Comp both semesters; or an A- in US History and English

11 both semesters; teacher recommendation, STAR testing

UC/CSU: pending approval

In this course, students master fundamental economic concepts, applying the tools (graphs, statistics, equations) from other subject areas to the understanding of operations and institutions of economic systems. Studied in an historic context are the basic economic principles of macroeconomics, international economics, comparative economic systems, measurement, and methods according to the model content standards found in the College Board recommendations.

#### AP Government and Politics U.S.

Semester: 5 units Grade 12

Prerequisites: B+ in AP US History and AP English Lang/Comp both semesters; or an A -in US History and English

11 both semesters, teacher recommendation, STAR Testing

Required: AP fee; AP test must be taken

UC/CSU: Approved; approved for Weighted GPA Point

This course is a college-level course designed for students with strong ability and interest in social studies who want an in-depth political science course using advanced analytical and educational skills. Students successfully completing this course take the Advanced Placement Exam for possible college credit. The course covers political and economic theory, the processes and institutions of federal, state, and local government, the influence of public opinion and media, and civil rights and civil liberties. Current political issues are discussed at length.

#### AP Macroeconomics

Semester: 5 units

Grade 12

Prerequisites: B+ in AP US History and AP English Lang/Comp both semesters; or an A- in US History and English

11 both semesters; teacher recommendation, STAR testing

Required: AP fee

UC/CSU: Approved; approved for Weighted GPA Point

In this college-level course, students master fundamental economic concepts, applying the tools (graphs, statistics, equations) from other subject areas to the understanding of operations and institutions of economic systems. Studied in an historic context are the basic economic principles of macroeconomics, international economics, comparative economic systems, measurement, and methods according to the model content standards found in the College Board recommendations. Students will take the AP examination at the end of the year.

#### **Psychology**

Semester: 5 units Grade 11 or 12

Prerequisite: B+ or better in Biology both semesters or B or better in Honors Biology both semesters, teacher

recommendation UC/CSU: Approved

Psychology provides a solid overview of the field's major domains: methods, biopsychology, cognitive and developmental psychology, and variations in individual and group behavior.

# **Sociology**

Semester: 5 units Grade 11 or 12

Prerequisite: B or better in AP European History and English 10 Honors; or B in World History and English 10 both

semesters, teacher recommendation

UC/CSU: Approved

In this course, the student will study the major concepts underlying the social science discipline of sociology. Sociology is essentially the study of human behavior as it relates to the group. One way of looking at it is that it is the study of group behavior.

# **Visual and Performing Arts Department**

1 year (10 units) of the same Visual and Performing Arts required

#### Art I/II

Year: 10 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

This course introduces the visual arts pertaining to drawing and design. The course emphasizes the basic elements of art and develops the student's skills in procedures, techniques, vocabulary, and skills in drawing and design. Students have the opportunity to create works in various mediums to enhance creative abilities through which students are introduced to historical and multicultural motifs and themes. Through the use of critiques, both by teacher and peers, students display the ability to aesthetically value and appreciate works of art as well as understand the relationship between art, culture, humanity, and history.

#### Drama I/II

Year: 10 units Grade 11 or 12 Prerequisite: None UC/CSU: Approved

This course introduces the student to the history of drama from the beginning of Greek drama up to and including 21st century drama. The student learns about the different aspects of drama such as acting and staging. Additionally, the student will participate in various aspects of drama production at the school.

#### Video Production I/II

Year: 10 units Grade 11 or 12 Prerequisite: None UC/CSU: Approved

This course exposes the students to the different aspects of video production. The student will learn about the principles of videography as well as how to edit video considering different artistic aspects.

#### 21st Century Yearbook Design and Publication

Year: 10 units Grade 11 or 12 Prerequisites: None UC/CSU: Approved

The purpose of this course is to provide practical experience in writing, editing, photography, layout, production and design by producing a high-quality yearbook. The course also provides hands-on experience in desktop publishing. Yearbook editors are responsible for supervising these activities and keeping the yearbook production on schedule. The yearbook adviser provides support, advice and instruction as needed. A student may take this course each semester a student is enrolled in school.

# Additional APEX Electives

Courses taken in previous categories beyond minimum requirements will satisfy elective requirements. Note: APEX courses are online, independent student-learning. There will be no subject teacher; instead, an APEX advisor will oversee the class period. The courses below may not satisfy NCAA requirements. However, courses may fulfill UC/CSU admission requirements; speak with school counselor for more information regarding A-G eligibility. Students taking courses of 5 units will need to take two classes of 5 units each school year. Students requesting a level II or higher will need to complete each lower-level course before progressing.

#### **Accounting I (APEX)**

Year: 10 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Accounting I examines how to make decisions about planning, organizing, and allocating resources using accounting procedures. Throughout the course, students focus on double-entry accounting; methods and principles of recording business transactions; the preparation of various documents used in recording revenues, expenses, assets, and liabilities; and the preparation of financial statements.

#### **Accounting II (APEX)**

Year: 10 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Accounting II builds on the foundation acquired in Accounting I, allowing students to extend their skills and knowledge in the subject. The course focuses on various managerial, financial, and operational accounting activities that require the formulation, interpretation, and communication of financial information for use in management decision making. Students will use equations, graphical representations, accounting tools, spreadsheet software, and accounting systems in real-world situations to maintain, monitor, control, and plan the use of financial resources.

#### **Art Appreciation (APEX)**

Semester: 5 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Art Appreciation is a survey of the history of Western visual arts, with a primary focus on painting. Students begin with an introduction to the basic principles of painting and learn how to critique and compare works of art. Students then explore prehistoric and early Greek and Roman art before they move on to the Middle Ages. Emphasis is placed on the Renaissance and the principles and masters that emerged in Italy and northern Europe. Students continue their art tour with the United States during the 20th century, a time of great innovation as abstract art took center stage. While Western art is the course's primary focus, students will finish the course by studying artistic traditions from Africa, Asia, Oceania, and the Americas

#### **Creative Writing (APEX)**

Semester: 5 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Creative Writing is an English elective course that focuses on the exploration of short fiction and poetry, culminating in a written portfolio that includes one revised short story and three to five polished poems. Students draft, revise, and polish fiction and poetry through writing exercises, developing familiarity with literary terms and facility with the writing process as they study elements of creative writing.

# **Ethnic/Multicultural Studies (APEX)**

Semester: 5 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Multicultural Studies is a one-semester elective history and sociology course that examines the United States as a multicultural nation. The course emphasizes the perspectives of minority groups while allowing students from all backgrounds to better understand and appreciate how race, culture and ethnicity, and identity contribute to their experiences.

Major topics in the course include identity, immigration, assimilation and distinctiveness, power and oppression, struggles for rights, regionalism, culture and the media, and the formation of new cultures.

# **Exploring Computer Science (APEX)**

Year: 10 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Exploring Computer Science offers a focused curriculum designed around foundational computer science concepts, including computer systems, programming, networks, and data management. The course also introduces students to foundational computer science skills such as coding, troubleshooting, and being a responsible digital citizen.

Course topics include the history and impact of computers; careers in computer science; computing laws and ethics; bias and equity issues in computing; algorithms and coding; data storage, organization, and analysis; hardware and software; robotics; networks and the internet; cybersecurity and online safety; website design; and the use of abstraction in computing. Students discover new concepts through guided instruction and confirm their understanding in an interactive, feedback-rich environment.

#### **Financial Literacy (APEX)**

Semester: 5 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Financial Literacy offers an engaging, scaffolded curriculum that introduces key topics and principles necessary to financial literacy. The one-semester course covers earning and spending; savings and investing; credit and debt; protection of assets; and financial planning and decision-making. Through real-life scenarios and hands-on activities, the course explores choosing among banking and investment options, shopping for an auto loan, choosing among career and college options, financing options for continuing education, planning for retirement, and creating and living within a budget. As a social studies course, Financial Literacy is designed to complement courses in Economics and Mathematics for Personal Finance.

#### French I (APEX)

Year: 10 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

French I teaches students to greet people, describe family and friends, talk about hobbies, and communicate about other topics, such as sports, travel, and medicine. Each lesson presents vocabulary, grammar, and culture in context, followed by explanations and exercises. Vocabulary includes terms to describe school subjects, parts of the body, and people, as well as idiomatic phrases. Instruction in language structure and grammar includes the verb system, adjective agreement, formal and informal address, reflexive verbs, and past tense. Students also gain an understanding of the cultures of French-speaking countries and regions within and outside Europe, as well as insight into Francophone culture and people.

#### French II (APEX)

Year: 10 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

French II teaches students to communicate more confidently about themselves, as well as about topics beyond their own lives - both in formal and informal address. Each lesson presents vocabulary, grammar, and culture in context, followed by explanations and exercises. Vocabulary includes terms in cooking, geography, and architecture. Instruction in language structure and grammar includes present- and past-tense verb forms and uses, negation, and direct and indirect objects. Students deepen their knowledge of French-speaking regions and cultures by learning about history, literature, culture, and contemporary issues.

#### **Introduction to Business Technology (APEX)**

Year: 10 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Introduction to Business and Technology provides the foundational knowledge and skills students need for careers in business and technology. Throughout the course, students gain a knowledge of business principles and communication skills, an understanding of the impact of financial and marketing decisions, and proficiency in the technologies required by business. Students will also learn the essentials of working in a business environment, managing a business, and owning a business.

This course allows students to explore careers in business and information technology while learning skills applicable to any professional setting. Through a variety of hands-on activities, students will engage with word processing, presentation, and spreadsheet software and explore operating systems, networking, and the Internet. Regular engagement in active learning ensures students can continually refine the skills necessary to prepare them for work. In addition, students will evaluate the qualifications required for specific careers so they can identify opportunities of interest to them.

#### **Legal Environment of Business (APEX)**

Year: 10 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Legal Environment of Business examines the role of the law on all aspects of business ownership and management. Throughout the course, students focus on legal ethics, court procedures, torts, contracts, consumer law, property law, employment law, environmental law, and international law. Students also explore the impact of laws, regulations, and judicial decisions on society at large.

This course allows students to explore careers in business while learning skills applicable to any professional setting. Through a series of hands-on activities, students will prepare legal documents, create a compliance plan, and research consumer protection issues. Regular engagement in active learning ensures students can continually refine the skills necessary to prepare them for work. In addition, students will evaluate the qualifications required for specific careers so they can identify opportunities of interest to them.

#### **Media Litercy (APEX)**

Semester: 5 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Media Literacy teaches students how to build the critical thinking, writing, and reading skills required in a media-rich and increasingly techno-centric world. In a world saturated with media messages, digital environments, and social networking, concepts of literacy must expand to include all forms of media. Today's students need to be able to read, comprehend, analyze, and respond to non-traditional media with the same skill level they engage with traditional print sources.

A major topic in Media Literacy is non-traditional media reading skills, including how to approach, analyze, and respond to advertisements, blogs, websites, social media, news media, and wikis. Students also engage in a variety of writing activities in non-traditional media genres, such as blogging and podcast scripting.

#### **Music Appreciation (APEX)**

Year: 10 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Music Appreciation is a streamlined course that introduces student to the history, theory, and genres of music, from the most primitive surviving examples, through the classical to the most contemporary in the world at large. The course is offered in a two-semester format: The first semester covers primitive musical forms, classical music, and American jazz. The second semester presents the rich modern traditions, including: gospel, folk, soul, blues, Latin rhythms, rock and roll, and hip-hop.

# Principles of Business, Marketing, and Finance (APEX)

Year: 10 units Grade 11 or 12 Prerequisite: None Required: Lab Fee UC/CSU: Approved

Principles of Business, Marketing, and Finance provides the knowledge and skills students need for careers in business and marketing. Students begin exploring roles and functions that business and marketing play in a global society, develop an understanding of the market place, as well as understanding product placement and promotion.

Students analyze the impact of government, legal systems, and organized labor on business; develop an understanding of business communications and management; and explore legal, ethical, and financial issues in business and marketing. Furthermore, students delve into basic economic concepts including personal finance, economic systems, cost-profit relationships, and economic indicators and trends.