



# 2018-2019

## *Course Descriptions*

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- Academies of the Antelope Valley schools will not discriminate against students on the basis of disability in any of its programs, services, and activities, including admission.
- AAV Schools offer the full range of special education and related aids and services based on the individual needs of an enrolled student with a disability, and will inquire about a student's disability, if any, and related documentation only after the student has been accepted for enrollment and for the purpose of providing the student a free, appropriate, public education (FAPE) and an equal opportunity to participate in AAV Schools services, programs, and activities.
- For information regarding the District's efforts to comply with Section 504 and Title II, including responding to complaints of disability discrimination, please contact the office of Ms. Shandelyn Williams, Assistant Superintendent of Student Services at 661-729-2321.

# GRADUATION REQUIREMENTS

The minimum requirements for graduation from high school as adopted by the Board of Trustees of the Antelope Valley Union High School District are as follows:

<b>REQUIRED SUBJECTS</b>	
English 9, 10, 11, 12	40 Credits (4 years)
Mathematics (must include Algebra 1 or higher)	30 Credits (3 years)
Science (Physical & Life Science required)	20 Credits (2 years)
Social Science	30 Credits (3 years)
Including: World History	(10 <sup>th</sup> grade/10 credits/1 year)
United States History	(11 <sup>th</sup> grade/10 credits/1 year)
Civics/Economics	(12 <sup>th</sup> grade/10 credits/1 year)
Visual and Performing Arts or Foreign Language	10 Credits (1 year)
Healthful Living	10 Credits (1 year)
Physical Education (required for 9 <sup>th</sup> and 10 <sup>th</sup> grades)	20 Credits (2 years)
Electives	<u>70 Credits</u>
<b>TOTAL UNITS OF CREDIT REQUIRED FOR GRADUATION:</b>	<b>230 UNITS MINIMUM</b>

## **MINIMUM PROFICIENCY STANDARDS:**

All students must demonstrate prescribed levels of proficiency in the basic skills of reading, written expression, and mathematics before graduation by passing the **California High School Exit Exam**. In accordance with California Education Code, students must pass Algebra 1 or a higher level math class in order to receive a high school diploma.

## **CLASSROOM CITIZENSHIP REQUIREMENTS:**

1. If a student receives more than three "U" grades he/she shall be ineligible for school activities for the quarter following that grading period. There will be no makeup for the "U" in citizenship.
2. A senior must meet citizenship eligibility requirements in the final two quarters of their senior year in order to participate in graduation ceremonies. Administration reserves the right to deny participation in graduation ceremonies, per board policy, to students with significant discipline concerns.

## **ATHLETICS/ACTIVITIES ELIGIBILITY**

1. Student must have at least a "C" Grade Point Average (2.0 GPA) as of the last quarter.
2. Student must have a satisfactory citizenship grade (no more than two "U" grades) in a grading period.

## **ASSOCIATED STUDENT BODY OR CLASS OFFICE ELIGIBILITY**

1. Student must maintain a 2.5 GPA.
2. Student must have a satisfactory citizenship grade (no more than two "U" grades) in a grading period.

# University of California

## Subject Requirements A-G

### **a-** History/Social Science - 2 years required

Two years of history/social science, including one year of World History,

Cultures and Geography; and one year of U.S. History or one-half year of U.S. History and one-half year of Civics or American Government.

### **b-** English - 4 years required

Four years of college-preparatory English that include frequent and regular writing, and reading of classic and modern literature. Not more than two semesters of ninth-grade English or no more than one year of ESL-type courses can be used to meet this requirement.

### **c-** Mathematics - 3 years required, 4 years recommended

Three years of college-preparatory mathematics which include the topics covered in Elementary and Advanced Algebra and two- and three-dimensional Geometry. Approved Integrated Math courses may be used to fulfill part or all of these requirements, as may math courses taken in the seventh and eighth grades that your high school accepts as equivalent to its own math courses.

### **d-** Laboratory Science - 2 years required, 3 years recommended

Two years of laboratory science providing fundamental knowledge in two of these three core disciplines: Biology (which includes Anatomy, Physiology, Marine Biology, etc.), Chemistry and Physics. The final two years of an approved three-year integrated science program may be used to fulfill this requirement. Not more than one year of ninth-grade laboratory science can be used to meet this requirement.

### **e-** Language Other than English - 2 years required, 3 years recommended

Two years of the same language other than English. Courses should emphasize speaking and understanding, and include instruction in grammar, vocabulary, reading, composition and culture. Courses in a language other than English taken in the seventh and eighth grades may be used to fulfill part of this requirement if your high school accepts them as equivalent to its own courses.

### **f-** Visual and Performing Arts (VPA) - 1 year required

## **BEHAVIORAL SCIENCE**

### **AVID Health Survey/ HEALTHFUL LIVING** (Healthful Living)

**Open to Grade: 9**

Healthful Living is a general health class based on the philosophy that both prevention and rehabilitation are important to lifelong wellness. The course offers enriching experiences for the pupil to recognize the extensive techniques available to deal with teenage experiences such as low self-esteem, stress, peer pressure, substance use and abuse, teenage sexuality, and decision-making leading to constructive life goals. Additional health subjects, such as character development, nutrition and eating disorders, diseases, personal relationships, human reproduction, sexually transmitted diseases, and child abuse, are taught with the emphasis on the practical aspects of adjusting healthfully to life experiences. Focus on study skills and career exploration are integrated specifically for topics pertaining to this class, as well as creating a foundational support system for cross curricular academic studies with the goal of developing and maintaining a desire for life-long learning for personal and social development. Students are encouraged to discuss the various healthful living topics with their families.

### **PSYCHOLOGY** (Psychology)

**Open to Grades: 9-12**

**Meets UC/CSU requirements**

This course introduces the field of psychology and its basic concepts, theories, research methods, and contributions to the understanding of human behavior. Topics include the nervous system, perception, motivation, learning and memory, social behavior, personality, developmental, and clinical psychology. The past and current theories and contributions of major psychologists are explored. Primarily a lecture-based course, other methods in the course include discussions, projects, and classroom activities.

### **PSYCHOLOGY AP** (Psychology AP)

**Open to grades: 11-12**

**Prerequisite: None**

**Meets UC/CSU requirements**

The Advanced Placement level of the general Psychology course. A broad overview of human behavior and relationships. This course will look at how we relate to others; how our behavior influences and is influenced by others in our society. We will investigate the social environment in which we live on an interpersonal, peer group, family, community, national, and global level. Use of group work, outside reading and current event issues will make the course relevant to each student's life. Students are expected and encouraged to take the Advance Placement Psychology end of course exam. There is a fee for the exam.

# BUSINESS

## **INTERNATIONAL BUSINESS**

**1 year (10 credits)**

**Elective – Not required for graduation**

**Open to Grades: 11-12**

**Prerequisite: Recommended completion of Business Management and Ownership Course**

International Business is a course where students analyze and develop global business acumen, as they study the interdependence of countries for goods and services. Students focusing on the area of international business develop an understanding of the global business environment and the interconnectedness of cultural, political, legal, historical, economic, and ethical systems. Specifically, the cultural and social factors such as language, education, religion, values and customs, and social relationships are examined as related to conducting business in a global economy. Through this study, students encounter themes such as creative thinking/innovation, opportunity recognition/analysis, competitive advantage and sustainability, business financials, financial literacy, cost/benefit analysis, human resources, market research and its application to marketing, ethics and social responsibility, and effective business planning. In this process, students integrate academic knowledge to their own ventures, putting theory into practice in collaboration with their peers. Students are prepared to apply economic reasoning and tools to the framework of global business and their own lives. A key outcome of the course focuses on refining communication skills in written essays, documents, reflective blog posts and web site development with corresponding oral presentations. With their exposure to global business, community, and careers in this vast economy, students begin to analyze their own strengths and develop e-- portfolios with artifacts from this widespread journey. As a result, students gain a confident advantage for future endeavors including entry to college.

## **INT'L BUSINESS PRACTICUM**

**1 year (10 credits)**

**Elective – Not required for graduation**

**Open to Grades: 11-12**

**Corequisite: International Business (concurrent enrollment)**

***Additional Requirement: In order to participate in the practicum/internship work-based opportunity, students are required to have 7 to 10 hours available between 1pm to 5pm, Monday through Friday, each week.***

In this practicum course, students undertake an experiential learning opportunity, typically with a company, non--profit, governmental, or community--based organization. The practicum links classroom learning and student interest with the acquisition of knowledge in an applied work setting. Through direct participation, observation, reflection and evaluation, students gain an understanding of the internship site's work, mission, and audience, how these potentially relate to their academic study, as well as the organization's position in the broader industry or field. Furthermore, classroom learning that accompanies the practicum involves the introduction of professionalism, work ethics, career exploration and career preparation. Requirements for this work-based opportunity within the course are: 12th grade student, exceptional overall student attendance, discipline record, and (passing) GPA, student availability (7 to 10 hours) in the early afternoon -- typically between 1pm to 5pm, Monday through Friday, each week, mandatory student attendance at assigned internship work site (excused only for emergencies), student ability to provide transportation.

## **BUSINESS MANAGEMENT AND OWNERSHIP**

**1 year (10 credits)**

**Elective – Not required for graduation**

**Open to Grades: 10-12**

**Prerequisite: None**

Introduces students to the analysis and development of business acumen in our economy. The emphasis is on the activities in which business people engage: accounting, finance, information technology, management, human resources, marketing, and operations. Also incorporated within this study are the concepts of economics, competition, communication, teamwork, ethics, social responsibility, and globalization. With exposure to these activities, roles, and concepts, business careers are also explored and evaluated.

# COMPUTER SCIENCE

## INTRODUCTION TO COMPUTER SCIENCE (Intro to Computer Science)

**Meets UC/CSU requirements**

**Open to grades: 9, 10, 11, 12**

An introduction to computer science that uses the first 10 weeks of UC Berkeley's CS10 "Beauty & Joy of Computing" curriculum. Students learn algorithms and use programming techniques to solve problems. Covers the history, social implications, great principles, future of computing, beautiful applications that have changed the world, how computing empowers discovery and progress in other fields. Relevance of computing to the student and society will be emphasized. Students will learn will complete a substantial team programming project related to their interests

## AP COMPUTER SCIENCE PRINCIPLES (AP Computer Science Principles)

**Meets UC/CSU requirements**

**Open to grades: 10 -12**

**Prerequisite:** It is recommended that a student in the AP Computer Science Principles course should have successfully completed a first year high school algebra course with a strong foundation on basic linear functions and composition of functions, and problem solving strategies that require multiple approaches and collaborative efforts. In addition, students should be able to use a Cartesian (x, y) coordinate system to represents points in a plane. It is important that students and their advisers understand that any significant computer science course builds upon a foundation of mathematical and computational reasoning that will be applied throughout the study of the course.

The AP Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course is unique in its focus on fostering student creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of these problems and the impacts to their community, society, and the world.

*<https://secure-media.collegeboard.org/digitalServices/pdf/ap/ap-computer-science-principles-course-overview.pdf>*

## Into to Video Game Development (Video Game Design)

**Meets UC/CSU requirements**

**Open to Grades:**

**Prerequisites: None**

Using a comprehensive and analytical approach to game engine architectures, the Video Game Design course provides students the opportunity to learn both the theory and application of gaming ideas. The curriculum covers: the history of video gaming; genres of games; social, ethical, psychological, and physiological issues related to gaming; object-oriented programming languages; mathematics skills; story, plot, and character development and related English Language Arts skills; the physics of motion; and the integration of traditional design elements of line, shape, color, texture, balance, rhythm, proportions, and variation, as they relate to 2D and 3D digital media in an interactive environment. Students will develop an appreciation of traditional artistic expression by way of direct hands-on design experiences, including creating working prototypes of 2D and 3D games and/or simulations.

## **AP COMPUTER SCIENCE A** (AP Computer Science A)

**Meets UC/CSU requirements**

**Open to grades: 11-12**

**Prerequisites:** The assumed prerequisites for entering the AP Computer Science A course include knowledge of basic English and algebra. A student in the AP Computer Science A course should be comfortable with functions and the concepts found in the uses of function notation, such as  $f(x) = x + 2$  and  $f(x) = g(h(x))$ . It is important that students and their advisers understand that any significant computer science course builds upon a foundation of mathematical reasoning that should be acquired before attempting such a course.

AP Computer Science A is equivalent to a first-semester, college level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language.

These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities.

***<https://secure-media.collegeboard.org/digitalServices/pdf/ap/ap-course-overviews/ap-computer-science-a-course-overview.pdf>***

## **CYBER SECURITY** **\*\*Pending a-g approval\*\***

Cybersecurity prepares students for success in postsecondary information technology majors and for careers in network administration and information technology support services with a focus on cybersecurity. The course includes a series of technical modules that provide hands-on learning as well as knowledge and skills development in computer hardware, operating systems, networking, coding, and security infrastructures. Industry-based curricula are utilized in network and virtual image environments to emulate real-life scenarios and prepare students for industry recognized certifications. Students research and address ethical and legal standards related to information security. Students mitigate cyber vulnerabilities through intricate problem solving scenarios requiring critical thinking, incident response and analysis, and collaboration. The Cybersecurity curriculum is designed to ensure a deep understanding of privacy, reliability, and integrity of information systems for students preparing for majors and careers in Cyber Security and Information and Communications Technology.

# **ENGLISH**

## **ENGLISH 9 HONORS** (English 9 Honors)

**Replaces English 9**

**Meets UC/CSU requirements**

While this course covers the same content standards as required in English 9, it is designed for students who seek academic rigor and higher level analysis, critical thinking and synthesis of the text. The units of study are project based or theme based, with an emphasis on essay development and format. Students should request a letter of recommendation from their 8<sup>th</sup> grade Language Arts teacher before the end of April.

## **ENGLISH 10** (English 10)

**Required class for 10<sup>th</sup> graders**

**Meets UC/CSU requirements**

At the second level of high school English, students, through the study of literature, develop skills in higher order reading, comprehension, language usage and writing, literary analysis, critical thinking, speaking and listening, and academic research. The difference between English 10 and subsequent English courses lies in the length, complexity, sophistication and range of course materials.

## **ENGLISH 10 HONORS** (English 10 Honors)

**Replaces English 10**

**Meets UC/CSU requirements**

At the second level of high school English, students, through the study of literature, develop skills in higher order reading, comprehension, language usage and writing, literary analysis, critical thinking, speaking and listening, and academic research. The difference between English 10 Honors and subsequent English courses lies in the length, complexity, sophistication and range of course materials.

## **ENGLISH 11** (English 11)

**Open to Grade 11**

**Meets UC/CSU requirements**

In English 11, students continue to develop and refine essential skills in reading, writing, speaking and listening. Through the study of core works of American fiction, nonfiction, public documents and technical texts, students will develop proficiency in reading for a variety of purposes. By interpreting and creating texts in response to the literature, students will come to understand, participate in, and contribute to a common literary and cultural heritage. Students will learn to analyze texts from the literature and the real-life world (such as newspapers, journals, and essays) and cogently express applications to their own lives through writing and speaking. By applying and generating technical texts, students will develop competencies that will prepare them for life in the workplace. Additionally, they will exercise and refine their abilities to speak to different audiences for a variety of purposes. The difference between English 11 and subsequent courses lies in the length, complexity, sophistication, and range of source materials.

**LANGUAGE & COMPOSITION AP** (English Language & Composition AP)

**Open to grade: 11**

**Meets UC/CSU requirements**

The English Language and Composition course is organized according to the requirements and descriptions of the current AP English Course Description and is open to students in grade 11 who wish to undertake a rigorous and challenging study of the elements of language and how they relate to rhetorical analysis and advanced essay writing. Students will become skilled readers of a variety of prose, primarily non-fiction, from a wide variety of periods, disciplines, and genres. Through close reading students will learn to identify values and assumptions that underpin the author's use of various rhetorical figures and devices of exposition. While a solid basis in English grammar is assumed, students will delve into elements of English language, as well as rhetoric and logic to become better writers. Students are expected to complete a summer assignment in preparation for this course. Standards for this class are set by the College Board, based off the freshmen composition course in college. This course is also designed to prepare the student to achieve success on the Advanced Placement Examination in English Language and Composition administered by the College Board.

**ENGLISH 12** (English 12)

**Open to grade: 12**

**Meets UC/CSU requirements**

In English 12, students continue to develop and refine essential skills in reading, writing, speaking and listening. Through the study of core works of world fiction, nonfiction, supplementary and technical texts, students will develop proficiency in reading for a variety of purposes. By interpreting and creating texts in response to the literature, students will come to understand and appreciate their shared humanity. Students will learn to analyze texts from the world of literature and the real-life world (such as newspapers, journals, and essays) and cogently express applications to their own lives through writing and speaking. By applying and generating technical texts, students will develop competencies that will prepare them for life in the workplace. Additionally, they will exercise and refine their abilities to speak to different audiences for a variety of purposes. The difference between English 12 and previous English courses lies in the length, complexity, sophistication, and range of source materials.

**LITERATURE & COMPOSITION AP** (English Literature & Composition AP)

**Open to grade: 12**

**Meets UC/CSU requirements**

Through a study of English and Continental literature from the 16th century to the present, the student will refine skills of literary analysis and criticism, writing, speaking, listening, academic research and close reading for meaning and significance. Students will read extensively from a wide variety of literary works, some of which are taught in college-level English courses. Regular in-depth discussion, analysis and interpretation of challenging works will lead the student to an enriched understanding of our common cultural heritage with peoples of the world. This course is also designed to prepare the student to achieve success on the Advanced Placement Examination in English Literature and Composition administered by the College Board.

## **FOREIGN LANGUAGE**

### **SPANISH 1** (Spanish 1)

**Open to Grades: 9-12**

**Meets UC/CSU requirements**

This course introduces the student to basic listening, speaking, reading and writing skills in Spanish. Students will also learn about a variety of Spanish speaking cultures. This course is not for Spanish speakers. This course fulfills one year of the 2 year UC or CSU Foreign Language requirement.

### **SPANISH 1 Honors** (Spanish 1 Honors)

**Open to Grades: 9-12**

**Meets UC/CSU requirements**

The course follows the same foundation as regular Spanish 1. Students will also develop and demonstrate higher level thinking skills in Spanish and within the context of Spanish speaking cultures.

### **SPANISH 2** (Spanish 2)

**Open to Grades: 10-12**

**Prerequisites: Grade of "C" or better on Spanish 1**

**Meets UC/CSU requirements**

This course expands on the basic listening, speaking, reading, and writing skills introduced in Spanish 1. Students will gain a deeper understanding of Spanish speaking cultures with increased detail. This course fulfills the second year of the UC or CSU Foreign Language requirement.

### **SPANISH 2 Honors** (Spanish 2 Honors)

**Open to Grades: 10-12**

**Prerequisites: Grade of "C" or better on Spanish 1**

**Meets UC/CSU requirements**

The course follows the same foundation as regular Spanish 2. Students will also develop and demonstrate higher level thinking skills in Spanish and within the context of Spanish speaking cultures.

### **SPANISH 3** (Spanish 3)

**Open to Grades: 11-12**

**Prerequisites: Grade of "C" or better in Spanish 2 or teacher approval.**

**Meets UC/CSU requirements**

This course expands on the intermediate listening, speaking, reading, and writing skills covered in Spanish 2. Students will continue to advance in their understanding of a variety of Spanish speaking cultures

**SPANISH 3 Honors** (Spanish 3 Honors)

**Open to Grades: 11-12**

**Prerequisites: Grade of “C” or better in Spanish 2 or teacher approval. Meets UC/CSU requirements**

This is the first year of a two year course of study in which students will be prepared to take the IB Spanish examination at the Standard Level. The purpose of this course is to expand previously acquired Spanish skills. The course will emphasize linguistic, cultural and social aspects of the language by developing oral fluency and accuracy, comprehension of various authentic and adopted Spanish texts, production of written activities, development of listening skills for effective Spanish communication and integration of cultural, social and historical aspects of the Spanish speaking world throughout the course.

**SPANISH LANGUAGE AP** (Spanish Lang and Culture AP)

**Open to Grades: 9-12**

**Prerequisites: Grade of “C” or better in Spanish 3 or Spanish 2 for Spanish Speakers or teacher approval.**

**Meets UC/CSU requirements**

The Spanish Language AP course is the equivalent of a third year college course in Advanced Spanish writing and conversation. This course prepares students for the AP Spanish Language Test. Students develop skills in higher order reading comprehension, language usage, writing, critical thinking, formal and informal communication through a variety of rigorous activities. Students must be willing to take the Spanish Language AP exam. There is a fee for the AP exam.

# **HEALTH, SCIENCE AND MEDICAL TECHNOLOGY**

## **BODY SYSTEMS AND DISORDERS** (Body Systems & Disorders)

**Open to Grades: 10-12**

This course will engage students in the study of the processes, structures and interactions of human body systems. Important biomedical concepts in the course include: communication, transport of substances, locomotion, metabolic processes, identity, and protection. The central theme will focus on how the body systems work together to maintain homeostasis and good health. The systems will be studied as “parts of a whole,” working together to keep the amazing human machine functioning at an optimal level. Students will design experiments, investigate the structures and functions of body systems, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary actions, and respiratory operation. Exploring science in action, students will work through interesting real world cases and often play the role of biomedical professionals to solve medical mysteries.

# **MATHEMATICS**

## **ALGEBRA 1** (Algebra 1)

**Open to Grades: 9–12**

**Meets UC/CSU requirements**

This gateway math course is based on the California Algebra 1 Standards. Algebra 1 is the foundation for all math courses. Successful completion of this course allows a student to proceed to Algebra 2. Freshman who either do not pass both semesters of Algebra 1, or pass both semesters with D's, will have to repeat the course their sophomore year. Students learn how to solve (and graph) equations and systems of equations. Students use the quadratic formula and factoring to solve real life problems. Students also learn how to use all of the four math operations to solve problems with rational expressions. Algebraic properties are introduced throughout the course.

## **ALGEBRA 2** (Algebra 2)

**Open to Grades: 9–12**

**Meets UC/CSU requirements**

This math course is based on the California Algebra 2 Standards. Algebra 2 provides the math foundation for Geometry and Trigonometry/Pre-Calculus. Students learn how to solve (and graph) systems of equations. Students use the quadratic formula and factoring to solve real life problems. Students also learn how to solve logarithmic and exponential functions, as well as use complex numbers and the binomial theorem. Probability and Statistics are also introduced.

## **GEOMETRY** (Geometry)

**Open to Grades: 9–12**

**Meets UC/CSU requirements**

This math course is based on the California Geometry Standards. It provides the formal development for students who take advanced math courses. Students will use their Algebraic skills to work with fundamental geometric concepts; such as logical proof, properties of points, lines, planes, angles, circles, and polygons. Students will also learn how to determine the geometric measurements of perimeter, area and volume.

## **TRIGONOMETRY/ PRECALCULUS** (Trigonometry/Pre-Calculus)

**Open to Grades: 11, 12**

**Meets UC/CSU requirements**

Trigonometry topics include periodic functions, circular functions, graphs, identities, polar coordinates, complex numbers, and analytic geometry. Pre-Calculus topics include linear and quadratic functions, polynomial functions, exponents, and logarithms, vectors and determinants, sequences and series, and matrices. This course covers all of the California Mathematics Academic Standards (1998) for Trigonometry, Probability and Statistics, Math Analysis and Linear Algebra. Students receiving grades of "C" or higher may be recommended for Calculus AB, AP.

## **INTRODUCTION TO PROBABILITY AND STATISTICS** (Intro to Probability and Statistics)

**Open to Grade: 12**

**Meets UC/CSU requirements**

Introduction to Probability and Statistics is an introductory course to the tools of statistics. This basic course in statistics is to introduce students to statistical ideas and their impact on everyday life and future fields of study. Students are exposed to four broad conceptual themes: Producing Data, Organizing Data, Chance and Inference.

## **STATISTICS AP** (Statistics AP)

**Open to grades: 11, 12**

**Meets UC/CSU requirements**

**Prerequisites: Counselor and teacher approval**

AP Statistics is an advanced placement course available to students who have successfully completed Algebra 2. This course prepares the student for the College Board Advanced Placement Statistics Test. Students who successfully complete this course and examination may receive credit for a one-semester introductory college statistic course. This non-calculus-based course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data.

## **CALCULUS AB-AP** [Calculus AB (AP)]

**Open to Grades: 11, 12**

**Meets UC/CSU requirements**

**Prerequisites: Counselor and teacher approval**

AP Calculus is an advanced placement course available to students who have successfully completed trigonometry. This course introduces students to both differential and integral calculus. This course prepares students for the College Board Advanced Placement Calculus Test. Students who successfully complete this course and examination may receive credit for a one-semester course in introductory college calculus.

## **PHYSICAL EDUCATION**

### **PHYSICAL EDUCATION 1** (P.E. 1)

**Open to Grade: 9**

This required class provides training in the basic motor skills used in various sports as well as intensive physical fitness training. Students will prepare for, and perform, state mandated physical fitness testing. Activity units may include basketball, cardiovascular fitness/movement skills, flag football, handball, soccer, volleyball, and fitness for life.

### **PHYSICAL EDUCATION 2** (P.E. 2)

**Open to Grade: 10**

This required class provides opportunities to study the advanced skills and strategies of specific sports while continuing to improve individual fitness. Activity units may include weight lifting, flag football, volleyball, softball, soccer, dance, and basketball. Students are required to pass two years of Physical Education for graduation.

## **SCIENCE**

### **BIOLOGY** (Biology)

**Open to Grades: 9-12**

**Meets UC/CSU requirements**

Biology is a general Life Science course with a Lab. It covers the structure and function of cells, genetics, ecology, some physiology and evolution. This course meets the “D” (Lab Science) requirement for admission to UC/CSU schools. It is recommended that students take Biology before Anatomy/Physiology or Marine Biology.

### **EARTH SCIENCE** (Earth Science)

**Open to Grades: 9-12**

**Meets UC/CSU requirements**

Earth Science is a general Physical Science course. It covers the structure and function of rocks and the earth. Other topics include: the solar system, weather patterns, volcanic activity and plate tectonics. This class may include some field trips for field geology and map-making and map-reading skills.

### **CHEMISTRY** (Chemistry)

**Open to Grades: 10-12**

**Meets UC/CSU requirements**

Chemistry is a college preparatory physical science course meeting the requirements of the University of California. Theoretical, quantitative, and laboratory approaches are used so the student may understand the basic concepts of chemistry. Students will need a calculator for homework.

### **CHEMISTRY AP** (Chemistry AP)

**Open to Grades: 11-12**

**Meets UC/CSU requirements**

The Advanced Placement Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year; this course prepares students for the College Board Advanced Placement Chemistry Test. Advanced Placement Chemistry is an in depth study of the chemical nature of matter, its composition and its chemical and physical changes. Mathematics is used to gain a better understanding of the chemical concepts studied.

Laboratory experimentation is extensive and comprehensive, and involves the application of chemical concepts and qualitative and quantitative laboratory methods at the college level.

### **PHYSICS** (Physics)

**Open to Grades: 10-12**

**Meets UC/CSU requirements**

Physics is a lab science course surveying motion and forces, energy and momentum, heat and thermodynamics, waves and optics, and electronic and magnetic phenomena. The course is designed to meet the needs of a wide variety of individuals. It is a rigorous course for the college bound individual pursuing a career in math, science or engineering. It may also be useful for students intending to attend a trade or technical school, or pursuing a career in a technical field after graduation.

**PHYSICS B AP** (Physics B – AP)

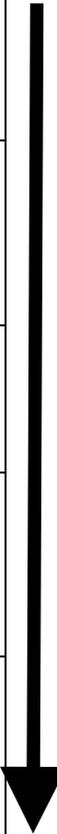
Physical Science credit; UC “A-G” Lab Science credit

Open to grades: 11-12

Prerequisite: Completion of Algebra II with “C” or higher and science teacher recommendation.

AP Physics is a college level introductory course in Physics. It covers the topics of Newtonian Mechanics, Statics, Thermodynamics, Wave Motion, Sound, Light, Electricity, Magnetism, and Modern Theory, and includes laboratory work. It is intended for the serious student who wishes to obtain college credit by taking the AP Physics B Exam. There is a fee for the AP exam.

**RECOMMENDED SCIENCE MODEL**

	<b>GRADUATION or COMMUNITY COLLEGE</b>		<b>4-year COLLEGE</b>			<b>4-year COLLEGE for SCIENCE MAJORS</b>
<b>FRESHM AN YEAR</b>	Biology or Earth Science		Earth Science	Biology		Biology
<b>SOPHO MORE YEAR</b>	Biology or Chemistry		Biology	Chemistry		Chemistry
<b>JUNIOR YEAR</b>	No science required		Chemistry	Physics		Physics and Science Elective
<b>SENIOR YEAR</b>	No science required		Science Elective	Science Elective		2 Science Electives
*college level course, have the opportunity to acquire college credit based on AP Test results						

## **SOCIAL SCIENCE**

### **WORLD HISTORY** (World History)

**Open to Grade: 10**

**Prerequisite: None**

**Meets UC/CSU requirements**

Students in grade ten study major turning points that shaped the modern world, from the late eighteenth century through the present, including the cause and course of the two world wars. Students will trace the rise of democratic ideas and develop an understanding of the historical roots of current world issues, especially as they pertain to international relations. Students develop an understanding of current world issues and relate them to their historical, geographic, political, economic, and cultural contexts. Students consider multiple accounts of events in order to understand international relations from a variety of perspectives.

### **AP WORLD HISTORY** (AP World History)

**Open to Grade: 10**

**Prerequisite: English 9 with a "B" or better  
or English 9 Honors AND instructor permission**

**Meets UC/CSU requirements**

This course is a social science course intended to prepare students to pass the AP examination in World History. Dealing with the time period 1000 C.E. to present, the course focuses on the impact of interactions among major societies, the relationship of change and continuity across the world during these time periods, the impact of technology and demography on people and environment, systems of social structure and gender structure, cultural and intellectual developments and interactions among and within societies, and changes in functions and structures of states and in attitudes toward states and political identities including the emergence of the nation state.

**US HISTORY** (U.S. History)

**Open to grade: 11**

**Meets UC/CSU requirements**

Students in grade eleven 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 the tenth grade study of global industrialization 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. An emphasis is placed on the expanding role of the federal government and federal courts as well as the continuing tension between the individual and the state. Students consider the major social problems of our time and trace their causes in historical events. They learn that the United States has served as a model for other nations.

**US HISTORY AP** (U.S. History AP)

**Open to grade: 11**

**Meets UC/CSU requirements**

The AP program in United States History 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 program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials- their relevance to a given interpretive problem, their reliability, and their importance- and to weigh the evidence and interpretations presented in historical scholarship. An AP United States History course should thus develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in an essay format.

**US GOVERNMENT & POLITICS AP/ Honors Economics** (Government and Politics United States AP)

**Open to Grade: 12**

**Meets UC/CSU requirements**

AP US Government and Politics is a college level course that provides students an opportunity to earn college credit through an AP exam. The AP Government & Politics: United States course provides an analytical perspective on government and politics in the United States. The goals of this course are for students to understand and comprehend important facts, concepts, and theories pertaining to our country's democratic political system. Students will be able to understand typical patterns of political processes and behavior and their consequences. Students will also be able to analyze and interpret basic data relevant to U.S. government. Students should be able to use such data to understand the changes in spending, voting behaviors, interest groups, roles in government, social programs & economic policymaking in our country's history. The course covers Constitutional Underpinnings, Separation of Powers, Federalism, Political Beliefs, Political Parties, Interest Groups, Mass Media, Branches of Government, Public Policy, Civil Rights, Civil Liberties, and other topics in line with the A.P. Test. The course will also require readings from sources other than the textbook (these will be provided to the students). There will also be many court cases covered in this class. This course will also include some sort of individual and/or class community service project.

**CIVICS** (Civics)

**Open to Grade: 12**

**Meets UC/CSU requirements**

**This is a semester class to be preceded or followed by Economics.**

Students in grade twelve 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. These standards represent the culmination of civic literacy as students prepare to vote, participate in community activities, and assume the responsibilities of citizenship.

**ECONOMICS** (Economics)

**Open to Grade: 12**

**Meets UC/CSU requirements**

**This is a semester class to be preceded or followed by Civics.**

In addition to studying and understand the United States system of Government in grade twelve, students will also develop a thorough understanding of the principles of economics. Students will understand fundamental economic concepts, the principals of micro- and macro-economics, as well as economic applications to both consumers and producers within the economic system. There will be a study of the nature and functions of product markets, the role of government policy in the economy, national income and price-level determination, the concepts of supply and demand, inflation, and debt. These economic principals will be interpreted in both the public and private sector. Many of these concepts will be studied in a historical context.

## **VISUAL ARTS, MEDIA & ENTERTAINMENT**

### **PHOTOGRAPHY 1** (Photography 1)

**Meets UC/CSU Fine art requirement**

**Open to Grades: 9-12**

Completing this course with a C or higher will give you AVC credit (see instructor for more info) This course is an integration of communication skills and artistic proficiencies using photography as a focus. Emphasis is on creative, expository, and instructional writing using comprehensive photographic and design concepts. Students learn color management, graphic design and/or selection of typography, texture, and layout design. This course covers Production techniques, aesthetics in Photography and develops production skills through hands-on experience with cameras, studio lighting, film, imaging software Digital and conventional darkroom equipment. This course explores the uses of photography in the humanities, emphasizing commercial and documentary photography and there social and historical significance. This course will also examine the relationship between words and images using classic examples of books utilizing photos and text. Students learn the importance of oral communication as a media tool through practiced public speaking. Students will use higher-order thinking skills through inquiry, observation, identification of relationships among pieces of information, and identification of patterns. Professional image presentation will be examined through the production of a digital portfolio and photo web gallery. Through this students will be prepared for entry-level employment in various visual imagery fields including Graphic design and Photography.

### **PHOTOGRAPHY 2** (Photography 2)

**Meets UC/CSU Fine art requirement**

**Prerequisite: Photography 1**

Photo 2 is an intermediate level course. This course is an integration of communication skills and advanced artistic proficiencies using photography as a focus. Emphasis is on creative, expository, and instructional writing using comprehensive photographic and design concepts. Students advance their mastery of color management, graphic design and/or selection of typography, texture, and layout design. This course reinforces production techniques, aesthetics in Photography and develops production skills through hands-on experience with cameras, studio lighting, film, imaging software digital darkroom. This course explores the uses of photography in the humanities, emphasizing commercial and documentary photography and there social and historical significance. This course will also examine the relationship between words and images using classic examples of books utilizing photos and text. Students learn the importance of oral communication as a media tool through practiced public speaking. Students will use higher-order thinking skills through inquiry, observation, identification of relationships among pieces of information, and identification of patterns. Professional image presentation examination is through the production of a digital and physical portfolio. This is a classroom based course, in which students receive guided studio practice.

### **MULTIMEDIA 1 – ILLUSTRATION** (Multimedia Contemporary Design 1)

**Meets UC/CSU Fine art requirement**

**Open to Grades: 9-12**

This course will introduce students to effective communication approaches for the 21<sup>st</sup> Century; going beyond the simple written and oral communication to interactive multimedia using text, graphics, animation, video, and sound. Digital illustration and graphic design are emphasized in this course as well as an introduction to simple animation in 2-D format and its application in current industries. Introduction to background illustration, perspective and character development will be incorporated,

as well. Focus will also be placed on introducing the student to the elements of art, principles of design, and the technologies of this new media. This integrated curriculum forms a solid groundwork from which students may build upon in Multimedia Contemporary Design II and is the first sequence of classes in the Digital Design and Engineering Academy. This multimedia class has been structured to reflect the California Career Technical Education Standards and the Common Core State Standards.

### **MULTIMEDIA 2 – ANIMATION** (Multimedia Contemporary Design 2)

**Meets UC/CSU Fine art requirement**

**Prerequisite: Multimedia 1**

Completing this course with a C or higher will give you AVC credit (see instructor for more info) This course will reinforce skills learned in Multimedia 1, while emphasizing animation. Students will develop advanced skills in interactive multimedia using text, graphics, animation, video, and sound. The principles of animation in 2-D format and its application in current industries will be an integral part of the class, as well as advanced investigation into character design, background design, and the elements and principles of art. Further skills in 3-D format background and character development will be incorporated, as well. Focus will also be placed on introducing the student to art, design, and the technologies of this new media. This multimedia class has been structured to reflect the California Career Technical Education Standards and the Common Core State Standards.

### **ART 1** (Art 1)

**Meets UC/CSU Fine art requirement**

**Open to Grades: 9-12**

Art 1 is an introduction to art theory and application in the areas of drawing, conceptual design, painting and color theory. The curriculum will focus on art history, art movements, and art production. Learners will use a variety of materials to create 2-dimensional and 3-dimensional projects. Assignments are created to meet each of the 5 content strands of the Visual Art Standards, with projects that focus on the elements of art and design: line, color, shape/form texture, value and space. Students will develop a portfolio that will include both class work and independent projects outside the classroom. Research in art history will be an integral part of the course of study. Many of the projects covered in this course will be integrated with the learners' core curriculum in other subjects so learners can make cross connections.

### **AP STUDIO ART 2D** (Studio Art: 2-D Design AP)

**Meets UC/CSU Fine art requirement**

**Open to Grades: 11-12**

**Recommended: Completion of Photography 1 & Photography 2**

AP Studio Art 2D exposes students to professional level technical and fine art experience. Advanced visual art students will work on a variety of skills in materials, concepts and techniques. By studying the major art movements, genres and significant artists in history, and exposure to the cultural and social influences of art, students will become fluent in articulating and identifying these elements in an artwork. An area of artistic voice and style is also developed. Students must focus on either a particular subject matter or medium and produce a body of work for a gallery showing. A portfolio worthy of inspection by colleges, scholarship committees, and potential employers is produced. Student portfolios are submitted to the College Board for evaluation.