AP Elective Course Descriptions

Course Title	Course Description
	ENGLISH
AP English Language & Composition	An Advanced Placement English course for Juniors. Students will learn about different writing modes, demonstrate their understanding of these modes through compositions, gain an awareness of audience and purpose, and their writing will reflect a wide range of rhetorical strategies. They will enhance their understanding of rhetorical strategies through reading and analyzing works of nonfiction and fiction with a strong emphasis on expository, analytical, and argumentative writing, but students will also develop their writing ability through personal and reflective writing. This course meets the University of California “b” English requirement.
AP English Literature & Composition	A course that teaches Advanced Placement English to Seniors. Course will include reading novels, a play, and poetry. The core philosophy of the course is to appreciate literature for its ability to create "meaning and pleasure". This course meets the University of California “b” English requirement.
	WORLD LANGUAGES
AP Spanish Language	A course in Spanish Language designed to develop better communicative techniques by performing exercises that encourage them to use their interpersonal skills by talking to each other and exchanging ideas, thoughts, experiences etc. The course will also seek to improve their written language through the creation of written passages that meet the grammatical and syntactical requirements of an AP language course. Students will be able to produce high quality essays that convey thought in a clear and organized manner and will develop an acute understanding of advanced colloquial language. They will be capable of understanding most dialects and what people talk about on a daily basis. This course meets the University of California “e” foreign language requirement.
	MATH
AP Calculus AB/BC	This 4 semester (year-long/everyday) course in calculus includes topics such as Functions and Models, Limits and Rates of Change, Derivatives, Applications of Differentiation, Integrals, Applications of Integration, Inverse Functions, Techniques of Integration, Differential Equations, Parametric Equations, Polar Coordinates, Infinite Sequences, Vectors and Geometry of Space. The course is equivalent to a full year of college-level calculus. This course meets the University of California “c” mathematics requirement.
AP Statistics	In this course, students develop strategies for collecting, organizing, analyzing, and drawing conclusions from data. Students design, administer, and tabulate results from surveys and experiments. Probability and simulations aid students in constructing models for chance phenomena. Sampling distributions provide the logical structure for confidence intervals and hypothesis tests. Students use a TI-83/84 graphing calculator, Fathom and Minitab statistical software, and Web-based java applets to investigate statistical concepts. This course meets the University of California “c” mathematics requirement.
	SOCIAL SCIENCE
AP World History	This is a year-long course for Sophomores offered on an A/B schedule. There are six major units of study covering the entire thematic and chronological span of world history. Themes include social structures, political systems, environmental issues, cultural traditions, and economic patterns. The course evenly covers events in the Americas, Europe, Africa, and Asia, and emphasizes skills in reading, writing, and critical thinking. A strong emphasis on developing time management, studying, and test-taking skills is included. This course meets the University of California “a” Social Science requirement.
AP US History	A year-long course in U.S. History for juniors designed to address the concept of American diversity and how race, ethnicity and gender has played a role in the development of the identity and culture of being an American. Relationships between the United States and others countries is addressed and how these relationships and diplomacy, including war, with foreign countries shape policy and attitudes in the United States. The concepts of reform and how reform movements emerge, develop, and the effects of these movements are also addressed in the course. This course meets the University of California “a” Social Science requirement.
AP US Government & Politics	This is an in-depth course of study involving the various institutions peculiar to the American political system and history with an interpretation of specific governmental case studies. The focus will be on civil liberties and civil rights, policy processes, political parties and interest groups, various political beliefs and the constitutional background of our government and

	political being. Students must be able to successfully complete daily work, unit tests, the above case studies and investigations, and research term papers leading to the Advanced Placement test. Writing on a daily basis will be stressed in order to prepare students for not only the essay sections of the AP test but for successful completion of future social science college work. This course meets the University of California “a” social science requirement.
AP Micro Economics	A Microeconomics AP course provides a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the larger economic system. It places primary emphasis on the nature and functions of product markets, and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. This course meets the University of California “g” elective requirement.
	SCIENCE
AP Biology	This is a two-semester course designed to provide the capable student with the opportunity to take part in a college/university level course while attending high school. This course is divided into three key concepts: Molecules and Cells, Heredity and Evolution, Organisms and Populations. Students will integrate eight major themes including science as a process; evolution; energy transfer; continuity and change; structure and function; regulation; interdependence; and science, technology and nature. This course meets the UC “d” science requirement.
AP Computer Science CTE	A one term course open to all grade levels. Must at least be concurrently enrolled in Honors Math II. Students will learn the principles that underlie the science of computing and develop the thinking skills that computer scientists use. Students will work on their own and as part of a team to creatively address real-world issues using the tools and processes of computation. Skills will be gained in making connections between concepts in computing, designing a program to solve a problem or complete a task, applying abstractions in computation and modeling, analyzing computational work, communicating ideas about technology and computation, and working collaboratively to solve problems. Content will cover Digital Information; Introduction App Design; Variables, Conditionals, & Functions; Lists, Loops, & Traversals; Algorithms; Parameters, Return, & Libraries; The Internet; Data; Cybersecurity & Global Impacts; and Physical Computing. This course meets the University of California “d” science requirement and can be taken as a 4th year of science.
AP Cyber Security	A one term course open to all grade levels. AP Cybersecurity is a broad introduction to the field of cybersecurity that aligns closely with a standard first year college introductory cybersecurity course. Students learn about common threats and vulnerabilities, and how those combine to create risk. Students study the ways that individuals and organizations manage risk, and how risk can be mitigated through a defense-in-depth strategy. Students explore specific vulnerabilities, attacks, mitigations, and detection measures across a variety of domains including physical spaces, computer networks, devices, and data and applications. Throughout the course, students consider the impact of cybersecurity on individuals, organizations, governments and societies.
AP Environmental Science	This course is intended to present a survey of the field of environmental science. Topics include global population, ecological principles and their applications. Further topics include energy, land use and land management, water use and management, global issues and politics of science. This course meets the UC “d” science requirement.
AP Physics	AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque and rotational motion. Students should have completed Integrated Math II and be concurrently taking Integrated Math III or an equivalent course. Although the Physics 1 course includes basic use of trigonometric functions, this understanding can be gained either in the concurrent math course or in the AP Physics 1 course itself. This course meets the University of California “d” science requirement.
	SOCIAL SCIENCE
AP Psychology	This course will introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology including Motivation & Emotion, Research Methods, Developmental

	Psychology, Biological Bases of Behavior, Personality, Sensation & Perception, States of Consciousness, Abnormal Psychology, Learning, Treatment of Psychological Disorders, Cognition, and Social Psychology. This course meets the University of California “g” elective requirement.