Arroyo High School Graduation Requirements

To earn an Arroyo High School diploma, students must pass the California High School Exit Exam and complete 220 credits to include the following:

10 credits English 9
10 credits English 10
10 credits English 11
10 credits English 12

10 credits World History
10 credits US History
5 credits Government
5 credits Economics

10 credits Algebra (or Math 1)
20 credits general math

10 credits Life Science
10 credits Physical Science
10 credits general science

20 credits Physical Education

5 credits Health

20 credits Foreign Language or Fine Art or Career Technical Courses

College Planning Guide*

Entrance Requirement Record (15 subjects required) *Must have a 'C' or higher*

Subject	Title of Course	Grade	Grade
English – 4 years			
Math – 3 years Algebra, Geometry, Algebra 2			
History – 2 years US History and World History			
Lab Science – 2 years			
Foreign Language – 2 years			
Visual/Performing Art – 1 year			
College Electives– 1 year			

* This plan covers the minimum entrance requirements for any 4-year college. Students working for entrance to highly competitive colleges are advised to take additional advanced courses.

Arroyo High School Courses

English

English 9
Grade Level: 9 A-G Approved
This is a literature-based course with frequent writing designed to develop critical thinking skills and to help students discover connections between literature and everyday life. Students will read three or four major works of culturally diverse literature and will write three to four essays stemming from the literary works. They will also study grammar usage and vocabulary within the context of the core literary works. Students must read outside of class and complete a comprehensive final project.

English 10
Grade Level: 10 A-G Approved
This is a literature-based course which builds on the skills and competencies learned in grade 9. Students read four to eight major works of culturally diverse literature and write three or four essays stemming from the literature. They also study grammar usage, vocabulary and spelling in the context of the core literary works. Students must read outside of class and complete a comprehensive final project or examination.

English 11
Grade Level: 11 A-G Approved
This is a literature-based course which builds on the skills and competencies learned in grades 9 and 10. Students read four to eight major works of American literature and write three to four essays stemming from the literature. They also study grammar usage, vocabulary, and spelling in the context of the core literary works. Students must read outside of the class. Students will complete a comprehensive final project or examination.

AP English Literature
Grade level: 11 A-G Approved
This is a college level class, which prepares students to take the AP English Literature exam. The readings and assignments are aligned with the College Board-approved literature curriculum. Intellectual challenges, reading assignments, pace, and writing workload are consistent with beginning college-level English courses. A mandatory meeting will be held in the spring to review expectations and give a suggested summer reading assignment.

CSU ERWC
Grade Level: 12 A-G Approved
This is a college preparatory course aligned with the California English Language Arts Content Standards. The course addressed critical reading and writing problems identified by the CSU English Placement Test Committee, and prepared students to meet the expectations of college and university faculty. Course assignments, organized into 14

modules and based mainly on non-fiction texts, emphasize the in-depth study of expository, analytical, and argumentative reading and writing.

AP English Language
Grade Level: 12 A-G Approved
This is a college-level class which prepares students to take the AP English exam. Students should be prepared for non-stop assignments in reading, writing, and literary analysis throughout the course. A mandatory meeting will be held in the spring to review expectations and give a suggested summer reading assignment.

Creative Writing
Grade Level: 11-12 A-G Approved
"People are dying every day for lack of what poetry can offer." (Robert Haas, Poet Laureate) In this course, students discover and develop their own personal writers' voice through journal writing, intuitive exercises, and creative writing assignments. Student writers learn the craft by studying famous poems and stories and by following the writing process, including editing and revising. Students should love writing enough to work enthusiastically to become better writers.

Journalism - Beginning
Grade Level: 11-12 A-G Approved
Students learn basic journalistic writing and editing skills, review English grammar and composition skills, and learn layout and graphic techniques, such as digital photography and electronic layout.

Journalism – Advanced
Grade Level: 12 A-G Approved
Students produce and edit the school newspaper, write a variety of expository and argumentative papers, and read significant literature. *Prerequisite: Successful completion of Journalism- Beginning*

Literature through Film
Grade Level: 9—12 A-G Approved
Students study film both as an art form and as a form of communication. They are taught how to "read" a film, just as students who study literature are taught to "see" how different literary forms and conventions are used by writers to achieve specific special effects. Students also study the history of the cinema and become familiar with the techniques of filmmaking. In addition, students examine how films often reflect the times and conditions in which they are made, and conversely, how motion pictures sometimes help shape social attitudes and values.

Advanced English Language Development (ELD)
Grades: 9-12 A-G Approved
The purpose of "Advanced ELD" is to provide Long Term English Learners (LTELs) with the skills and content knowledge to increase their current ELD level as well as

introducing the grade-level Common Core ELA standards necessary to meet reclassification criteria. The course's academic emphasis is on oral language development, accelerated academic vocabulary acquisition, expository writing, and reading comprehension. Thematic units are organized to ensure that students make connections to other core content areas (science, math, social studies), and the topics are relevant to the students. Students learn organizational and study skills, develop their critical thinking, learn to be resourceful, and participate in motivational enrichment activities. In addition, students will engage in research-based lessons with culminating writing projects and oral presentations.

Social Science

World History
Grade Level: 10 A-G Approved
Students will examine the major turning points in the shaping of the modern world from the late 18th century to the present. Students will employee the tools of history to analyze both current and historical information to build and interpret the ever expanding and challenging field of study called history.

AP World History
Grade Level 10-12 A-G Approved
In AP World History students study the important themes and concepts from 8000 B.C.E. to the present. This course covers themes like interaction between people and their environment, development and interaction of cultures and economic systems, state-building, expansion, and conflict.

US History
Grade Level: 11 A-G Approved
Students examine major turning points in American history by studying events, people, and concepts from the end of the 19th century to the present, emphasizing continuity and change based on these themes: American government, politics, economics, culture, technology, ethnicity and civil rights.

AP US History
Grade Level: 11- 12 A-G Approved
AP U.S. History is a reading, writing, and discussion course designed to be the equivalent of a freshman college course and can earn students college credit. This class will prepare students to pass the College Board AP U.S. History test, which all students will be encouraged to take. This elective class is designed specifically for students desiring a college-level survey history course. It requires seriously committed students who are willing to work far above the level required in a "regular" high school history class.

Government/Economics
Grade Level: 12 A-G Approved
Government introduces students to the basic elements of American government, emphasizing the Constitution, and the qualities of good citizenship and political participation. There is a Civil Action Project requirement in this course. In *Economics* students study how societies use the limited resources available to them to satisfy the unlimited wants of their citizens. Students will examine the different kinds of economic institutions and systems that operate to bring resources and consumers together, the relationship of supply and demand, pricing, competition, and market structures. Students will complete an in-depth study of the stock market.

AP Government

Grade Level: 12 A-G Approved

This course serves as a college level introduction to the US national government. It is taught with the conviction that students want to know not only who governs but also what difference it makes who governs. Explaining both who governs and to what end cannot be done without investigating the politics of policymaking. We will examine the government institutions which make these types of policies and the impact they have on people throughout the US. This course is designed to enable students to develop a critical perspective towards government and politics in the United States. Students will examine general political concepts as well as specific case studies as they investigate our constitution and the institutions that govern the nation.

Students will receive the curriculum for Economics woven throughout the AP Government course. All Economic standards will be covered but not as a concentrated one semester course.

Introduction to Philosophy

Grade Level: 11-12 A-G Approved

This is an elective course designed to promote good citizenship and prepare students for successful university study and/or wise career decision-making. The course is intended to introduce students to the most fundamental and fascinating philosophical issues and questions that have faced mankind throughout history. Emphasis will be placed on critical thinking, logical analysis and argumentation, effective problem solving, public speaking and debate, and the building of self-esteem. Students will read a wide variety of literature, including books, plays, essays, short stories, articles, and poems; analyze a variety of films and lyrics; and grapple, both orally and in writing, with numerous critical thinking questions. Ultimately, the course is designed to help students discover, reflect upon, and clearly formulate their personal beliefs and convictions – and to defend these logically.

Psychology/Sociology

Grade Level: 11-12 A-G Approved

This course provides a survey of two interrelated social sciences—psychology and sociology. The first semester of this course provides an overview of the scientific study of human behavior and mental processes. Students will be introduced to basic psychological terms and theories. The second semester focuses on the scientific study of human social behavior, with an emphasis on social groups and institutions. Within each unit students will be able to investigate the connections between psychology/sociology and their personal lives. There is a high expectation for attendance and participation.

Women's Studies

Grade Level: 11-12 A-G Approved

Women constitute 51% of the world's population, yet in the high school curriculum there isn't much time devoted to women's issues and perspectives. This course enhances existing curriculum by introducing the subject of women into serious academic inquiry. We will examine international women's issues, American women's history, educational issues, feminism, women working, and all of the "ugly stuff" (abuse, objectification, slavery, etc.). This is a rigorous course, which requires a lot of reading and writing, but is

mostly discussion based.

AP Psychology

Grade Level: 11-12 A-G Approved

Advanced Placement Psychology is designed to introduce students to the scientific study of the behavior and mental processes of human beings. Students will be exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. This is an intensive course that is designed to be the equivalent of a college level introductory course in Psychology.

Mathematics

Math 1
Grade Level: 9 - 12 A-G Approved

Math 1 is the first course of the core college-prep high school mathematics curriculum. Students work both cooperatively and individually with all strands of mathematics including problem solving, data organization, graphing, solving equations, ratios, geometric representations, probability, and functions. New topics are approached using concrete models and then extended toward abstractions.

Math 2
Grade Level: 9-12 A-G Approved

Math 2 is the second course of the core college-prep high school math curriculum. It reviews and extends the topics from the Algebra course and examines the strand of geometry in much more depth. This course explores the properties of 2-dimensional figures and 3-dimensional solids and examines the process of generalizing and proving these properties. *Prerequisite: Successful completion algebra.*

Mathematical Modeling

Grade Level: 10-12 A-G Approved

Mathematical Modeling uses the CCSSM-modeling standards to provide students with an opportunity to diversify their mathematical perspectives with meaningful and exploratory content as presented in each of the mathematical domains (counting and cardinality, operations & algebraic thinking, number & operations in base ten, number & operations—fractions, measurement & data, geometry, ratios & proportional relationships, the number system, expressions & equations, functions, and statistics & probability). Students will explore pure and applied mathematics using formal and informal investigation tools. *Prerequisite: Successful completion of math 2.*

Math 3
Grade Level: 10-12 A-G Approved

Algebra 2 is the third course in the core college-prep high school mathematics curriculum. It reviews, enriches, and expands upon the most important concepts studied in Algebra and Geometry. Covered topics include advanced functions, inverses, imaginary numbers, logarithms, and trigonometry. *Prerequisite: Successful completion of math 2 or math modeling.*

Statistics-AP

Grade Level: 10-12 A-G Approved

AP Statistics is the high school equivalent of a one semester, introductory college statistics course. 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 behavior. 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. To develop effective statistical communication skills, students are required to prepare frequent written and oral analyses of real data. . *Prerequisite: Successful completion Math 3 or Mathematical Modeling*

AP Calculus
Grade Level: 11-12 A-G Approved
Advanced Placement Calculus is a college-level course designed to prepare students to take the AP Calculus (AB) exam in the spring, which they are expected to take. Calculus emphasizes a multi-representational approach, which expresses concepts, results, and problems geometrically, numerically, analytically, and verbally. Students learn to use derivatives and integrals to analyze the behavior of functions, and to apply derivatives and integrals to model physical, social and economic situations. Specifically, students will use calculus to explain and predict the behavior of functions; know the definition of the derivative, understand the connection between continuity and differentiability, and understand the derivative as an instantaneous rate of change; understand derivatives and integrals as limits; and learn techniques of differentiation and integration and use them to solve problems. *Prerequisite: Successful completion of Math 3*

Geometric Constructions and Computer Graphics
Grade Level: 10-12 G Approved
This course integrates geometry, art, and technology. Students begin with paper and pencil geometric constructions and extend these concepts on computers using "Geometer's Sketchpad" software to create graphics. This is a course for any interested students, including college-bound students, who are interested in a deeper exploration of geometry; students who struggled in algebra and would like a more experiential approach to geometry before continuing the college-prep sequence; and students who need additional math credits for graduation. *Prerequisite: Successful completion Math 1*

Intro to Computer Programming
Grade Level: 10 -12 A-G Approved
This course is designed to introduce students to the breadth of the field of computer science through an exploration of engaging and accessible topics. Rather than focusing the entire course on learning particular software tools or programming languages, the course is designed to focus on the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve particular problems. The goal of this course is to develop in students the computational practices of algorithm development, problem solving and programming within the context of problems that are relevant to the lives of today's students. Students will also be introduced to topics such as interface design, limits of computers, and societal and ethical issues. *Prerequisite: Successful completion of Math 1*

AP Computer Science
Grade Level: 11-12 A-G Approved

The course is an introduction to computer science. The course teaches Java programming language, emphasizing object-oriented programming methodology with a concentration on problem solving and algorithm development, and is meant to be the equivalent of a first semester college-level course in computer science. It also includes the study of data structures, design, and abstraction. *Prerequisite: Concurrent enrollment in Math 3*

AP Principles of Computer Science

Grade Level: 10-12 A-G Approved

Students work in teams to develop computational thinking and solve problems. The course does not aim to teach mastery of a single programming language but aims instead to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. The course also aims to build students' awareness of the tremendous demand for computer specialists and for professionals in the field who have computational skills. The course also aims to engage students to consider issues raised by the present and future societal impact of computing.

Science

Biology (The Living Earth)
Grade Level: 9 D Lab Science

Biology is the first class in the California State Framework 3 Course Model, which will ensure that all students meet all Next Generation Science Standards (NGSS). This course provides activities and lab experience in "Living Earth" science concepts. Students will be expected to participate in a variety of activities that enable them to obtain a deeper knowledge of concepts that range from characteristics of life to ecology. All curriculum is designed based on the NGSS standards along with cross-cutting concepts and science and engineering practices.

Chemistry (Chemistry in the Earth System)
Grade Level: 10-12 D Lab Science

This course is one of two options (the other option is Geology) for the second class in the California State Framework 3 Course Model, which will ensure that all students meet all Next Generation Science Standards.

Chemistry is a laboratory-based course that covers a wide range of chemistry topics relating to food, energy and the environment. This program involves a study of the preparations and properties of many common elements and inorganic compounds. The practice of these laboratory techniques and the experimental method will help students improve their critical thinking skills in science. Problem-solving includes using algebra and scientific notation. *Prerequisite: Successful completion of biology ("C" or better is recommended)*

Geology
Grade Level: 10-12 D Lab Science

This course is one of two options (the other option is Chemistry) for the second class in the California State Framework 3 Course Model, which will ensure that all students meet all Next Generation Science Standards.
Geology is designed to help students understand the relationship between planet Earth and the processes that make our "third rock from the sun" an active and sometimes dangerous planet. Students will investigate Earth Science concepts and acquire laboratory and field skills involving mineral and rock identification (geochemistry), geophysics, geomorphology, geologic history, mapping, plate tectonics, astronomy, oceanography and meteorology. Concepts in Chemistry, Physics and Environmental Sciences will be incorporated within the core units covered.

Physics (Physics in the Universe)
Grade Level: 11-12 D Lab Science

Physics in the Universe is an exciting combination of Physics, Earth, and Space Science concepts. The course is divided into 6 instructional segments which are:

- Forces and Motion – where students will relate motion to forces, investigate collisions in the Earth's crust and participate in an engineering challenge.

- Forces at a Distance – which will link gravity to motion of objects in our solar system.
- Energy Conversion – where students will study energy transfer through a large power plant project.
- Nuclear Processes – where students will apply fission, fusion, and radioactive decay to understand the interior of the Earth and processes that shape its surface.
- Waves and EM Radiation – where students will see connections to earthquakes and communication.
- Stars and the Origen of the Universe – where students will study the flow of energy from the Sun's core to the Earth.

This course is the third class in the California State Framework 3 Course Model, which will ensure that all students meet all Next Generation Science Standards. *Prerequisite: Successful completion of Chemistry or Geology.*

Anatomy/Physiology

Grade Level: 11-12 D Lab Science

This is an introductory course designed for those students interested in exploring in greater depth how the human body functions. Concepts covered in the course will introduce students to the parts of the human body as well as how those parts function with all the other systems. Some examples of body systems that will be learned throughout the year include muscular system, skeletal system, and nervous system. Students will also make connections to how homeostatic imbalances in specific body systems can cause disease or disorders. Laboratory experiments, dissections, activities, and class discussions will be used to help in the understanding of concepts in each unit. *Highly Recommended: Successful completion of Biology.*

AP Biology

Grade Level: 11-12 D Lab Science

Advanced Placement Biology is a rigorous college-level course, which will build on the student's prior knowledge gained in Biology and Chemistry classes. It will align itself with the course description, curriculum, and methods of evaluation, as prescribed by the guidelines established by the College Board. Topics will include, but are not limited to: the process of evolution driving the diversity and unit of life, biological systems using energy to grow, reproduce and maintain homeostasis; living systems store, retrieve, transmit, and respond to information essential to life processes; and biological systems interact, and these systems and their interactions possess complex properties. *Prerequisite: Successful completion of Biology and Chemistry ("C" or better is highly recommended)*

AP Chemistry

Grade Level: 11-12 D Lab Science

Advanced Placement Chemistry is a rigorous college-level course, which will build on the student's prior knowledge gained in the regular chemistry class. It will align itself with the course description, curriculum, and methods of evaluation, as prescribed by the guidelines established by the College Board. Topics will include, but are not limited to,

the structure of matter, kinetic theory of gasses, chemical equilibria, chemical kinetics, basic concepts of thermodynamics, chemical reactions, and descriptive chemistry (chemistry's impact on our society). Students are expected to take the Advanced Placement exam. *Prerequisite: Successful completion of chemistry ("C" or better is highly recommended)*

AP Physics

Grade Level: 11-12 D Lab Science

AP Physics is a college-level course, taken as an alternative to our Physics in the Universe course. AP Physics 1 is equivalent to a first semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum), work, energy, and power, mechanical waves and sound, and introduces electric circuits. Students spend a great deal of time working on labs, and in groups to build understanding of concepts through collaboration and communication. All students are expected to take the AP Physics exam. *Prerequisite: concurrent enrollment in Math 3.*

Biotechnology

Grade Level: 11-12 D Lab Science

This course is designed to give students an introduction to the scientific concepts and lab skills used in DNA extraction, DNA analysis, genetic engineering, infectious disease testing, and protein manufacturing. Students will develop critical thinking skills and communication skills by performing a variety of laboratory and internet activities and presentations. Skills that use Google Docs, PowerPoint, word processing, and internet research will also be reinforce. This course is aligned with the Ohlone College Learning Alliance for Bioscience Program, and students have the opportunity to earn four college credits (for free) upon successful completion of the biotech class with a "B" and passing of an assessment exam.

Prerequisite: Successful completion of biology and completion of either chemistry or geology.

Sports Medicine

Grade Level: 11-12 G Lab Science

Students will explore the structure and function of the human body through the view of sports. Students will learn how the body adapts to the demands of a given sport. This knowledge will serve as a basis for understanding physiological response to injury and improving individual performance. Students will apply hands on skills learned in class to the field experience. College credit is available for qualifying students through articulation with the community college.

Special Studies

Health
Grade Level: 9
The students taking this course will gain a firm understanding of a variety of health topics pertaining to good overall student health and well-being, as well as learn health related terminology and functions of body systems. Topics include behavioral health, safety and violence, nutrition/exercise/weight management, disease, drugs, and family life.

IWE/Office Assistant
Grade Level 11-12
Students assist teachers or office staff. *Grading is done on a Pass/Fail basis only.*

Leadership
Grade Level 9-12 A-G Approved
Apply leadership skills to practical settings, group interaction and committee work. This class is designed to teach leadership skills and governmental structure which ultimately enhances school pride, spirit, and culture as well as the student's individual knowledge of a working government. The class will focus on standards designed by the California Association of Directors of Activities and Common Core State Standards, including public speaking, written communication, service learning, presentation skills, community service, governmental hierarchy, procedures and elections, personal and social development, goal setting, group dynamics, business marketing, finance accounting, advertising, business law and research while positively impacting the entire student body. This is a required course for all elected associated student body officers, appointed council associates and all elected class officers. This leadership course will require students to attend mandatory events before the start of the school year, after school and on weekends. *Prior approval of the Activities Director is required.*

Peer Tutor
Grade Level 11-12
Students will work with teachers to provide in-class tutoring.

Physical Education
Grade 9-12
This course is designed to encourage students to experience a wide variety of activities and develop an awareness of individual fitness.

Athletics
Grade 10-12
This course is a physical education class offered for athletes who participate in one or more Arroyo sports. *Prior approval from the Athletic Director is required.*

Foreign Language

Espanol para Hispanohablantes (Spanish for Native Speakers)
Grade Level: 9-12 A-G Approved
This course will guide fluent or near-fluent speakers of Spanish to improve their reading and writing skills in Spanish. The focus will be on the process of writing, with attention to formalizing knowledge of grammatical structures particular to Spanish writing and spelling. Projects and discussions will focus on cultural heritage and issues concerning Spanish speakers. This course will prepare students for level 3 or higher. Students should be prepared for non-stop assignments in reading and writing.

Spanish 1/ French 1
Grade Level: 9-12 A-G Approved
These introductory courses emphasize skills reinforced by experiences in reading, writing, and cultural understandings. Level 1 topics include: the alphabet/sound system, numbers, giving basic information about oneself, asking simple questions, describing people, communicating about families/friends, talking about school, and communicating simple actions.

Spanish 2/ French 2
Grade Level: 9-12 A-G Approved
Level 2 courses are designed to further develop communication, reading and writing skills in the language, with a stronger emphasis on grammar. Students will further explore the culture of the language. Level 2 topics include: talking about events in the past and future, traveling to a foreign country, childhood, and restaurant etiquette/foods.

Spanish 3/ French 3
Grade Level: 9-12 A-G Approved
Level 3 courses are designed to emphasize oral practice, increased reading and writing practice, and advanced application of vocabulary and grammatical structures. Classes are taught primarily in the target language and students will be expected to use the target language as their primary mode of communication. Literature will also be introduced as a means of reinforcing reading, writing, and cultural knowledge.

Spanish 4
Grade Level: 9-12 A-G Approved
The level 4 course is designed to prepare students for college-level Spanish courses and/or the AP level course. Emphasis is placed on advanced communication, writing skills, and includes reading and analysis of literature. The class is taught primarily in the target language and students will be expected to use the target language as their primary mode of communication.

AP Spanish
Grade Level: 9-12 A-G Approved
This course is the equivalent of a beginning college-level course in advanced foreign language composition and conversation. Oral skills, composition, and grammar are

emphasizes. Class is taught in Spanish and students will be expected to use Spanish as their primary mode of conversation. This course will prepare students to take the AP exam in Spanish.

American Sign Language 1
Grade Level: 9-12 A-G Approved
This is a beginning course for students who have no knowledge of Sign Language. The students learn sign language to the point where they can function comfortably in a wide variety of situation in the deaf community. They will learn appropriate behaviors and show awareness of respect for Deaf Culture.

American Sign Language 2
Grade Level 9-12 A-G Approved
This course is the second in the Sign Language series and will continue to stress in depth appropriate behaviors, awareness of and respect for Deaf Culture, and functioning comfortably in the deaf community.

Visual and Performing Arts

Beginning Art
Grade Level: 9-12 A-G Approved
This is the foundation course for the visual arts program introducing students to aesthetics, creative expression, art history, and critique. Students learn the elements of art and conduct visual research using various media and materials. Students explore and gain proficiency working in paint, graphite, ink, mixed media, collage, pastel, color pencil, water color and printmaking. Art projects encourage students to see themselves as artists with unique experiences and cultural perspectives from which they can create meaningful art. Over the course of the year students discover their artists eye by creating realistic and expressive original artworks, working in sketchbooks, participating in art shows, and collaborative projects.

Intermediate Art
Grade Level: 10-12 A-G Approved
Students extend their knowledge of the elements of art and learn the principle of design. Projects and assignments explore aesthetics, creative expression, art history, and critique. This course offers students more creative freedom and encourages students to explore their personal style. Coursework includes drawing, painting, perspective, color theory, portraiture, expressionism, abstraction, mural painting, installation, symbolism and cultural art. *Prerequisite: Successful completion of Beginning Art*

Advanced Art
Grade Level: 11-12 A-G Approved
This course further expands student knowledge of the elements of art, principles of design, aesthetics, creative expression, art history, and critique in an open studio setting. Students refine their personal style through project proposals, creating original artwork, complex composition, conducting visual research in special interest areas, exploring themes in a global context and creating a cohesive body of work to be displayed in a portfolio. As portfolios progress, options for Advanced Placement Art will be explores. Students keep a sketchbook journal, visit a museum/gallery, participate in collaborative projects, extracurricular events, art club, and art shows. *Prerequisite: Successful completion of Intermediate Art*

AP Studio Art: Drawing and 2-D
Grade Level: 11-12 A-G Approved
Advanced Placement Art is intended for highly motivated and talented students who wish to purse college level studies while in high school. Students wishing to take AP Art need to submit a portfolio to the art department for approval and complete all summer art assignments. During the year, students produce a portfolio of high quality college level artwork to be submitted to the AP College Board in May. After submission of portfolios, students focus on campus beautification by designing and painting a moralized chair, bench, door, wall or other object on campus. *Prerequisite: Approval of Art Instructor*

Band

Grade Level: 9-12 A-G Approved
Beginning, intermediate, and advanced levels are available including Concert Band and Jazz Band Ensemble. Public performances outside of school hours are required.

Ceramics - Beginning
Grade Level: 10-12 A-G Approved
Students will explore the possibilities of clay as a creative medium. Construction techniques will include pinch, coil, slab, and wheel thrown forms. A variety of surface decoration techniques will be explored.

Ceramics – Intermediate/Advanced
Grade Level: 11-12 A-G Approved
Students will alternate between more complicated wheel thrown forms and more advanced hand building techniques. Exploration of various surface decoration and glazing techniques will also be introduced in this course. Third year ceramics students will propose their own independent in-depth units to focus on during the year.

Concert Choir
Grade Level: 9-12 A-G Approved
This is a beginning performing choir with emphasis placed on learning how to sing correctly, along with building general musicianship skills needed to achieve musical independence. This choir is open to anyone, no audition required. Public Performance required. May be repeated for credit.

A Capella Choir
Grade Level: 11-12 A-G Approved
A Cappella Choir is designed for the 3rd & 4th year of students' choral and vocal studies. There is increased emphasis on interpretive techniques. Students should be able to read music. Public performance is required. May be repeated for credit. *Prerequisites: Audition or recommendation from music teacher required.*

Chamber Choir
Grade Level: 11-12 A-G Approved
This is a select, advanced performing group. Students need advanced skills in the area of singing and music theory. Public Performance required. May be repeated for credit. Audition or recommendation from music teacher required; must be able to match pitch and read music.

Beginning Dance
Grade Level: 9 -12 A-G Approved
This course will teach basic dance techniques applicable to a variety of dance styles. It will also introduce basic choreography principals. May be repeated for credit. This class is open to anyone. This class can earn either Fine Arts or PE credit.

Drama
Grade Level: 9-12 A-G Approved

The class introduces the student to beginning acting techniques and theatre appreciation. The class will cover ensemble work/team work, movement, voice, scene and play analysis, scene work including an emphasis on objectives, obstacles, and acting techniques, improvisational skills, character analysis and performance, monologues, and theatre technical skills including; scenic design, costuming, and makeup. The class includes a public performance application as well as a drama critique.

Electric Piano Keyboard
Grade Level: 9-12
This course is designed for students who do not know how to play the piano. Students will learn to play the piano, read music and understand basic music theory. Through student compositions and arrangements the class will also explore the versatile abilities of the electronic keyboard. Student must provide their own battery operated keyboard and replacement batteries (minimum of 24 white keys).

Guitar
Grade Level: 9-12 A-G Approved
This course is a group class which emphasizes basic classical and folk style techniques. It is designed for the student who has no previous experience playing the guitar. Students will learn to read music. Students must provide their own acoustic guitar. Electric guitars will not be permitted.

Hip Hop
Grade Level: 9-12 A-G Approval Pending
Students in this course will develop skills and techniques used in contemporary hip hop dance while also applying and creating choreographic structures. The course explores dance as a means of expression and communication while comparing dance styles, genres, major works and artists. Students will understand dance history and the social and cultural significance of hip hop dance. The course includes participating in team dance competitions.

Jewelry and Small Sculpture
Grade Level: 11-12 A-G Approved
Students will explore jewelry design using a variety of media and technique, such as: wire, paper, and beading. They will also learn various folk art techniques in creating paper, leatherworks, candle making, basket weaving, and glass art.

Orchestra
Grade Level: 9-12 A-G Approved
Emphasis is on the development of bowing techniques, ear training, performance skills, and the exportation of traditional and contemporary orchestral literature. Intermediate and advanced levels are available. Rehearsals and performances outside of school hours are required.

Photography - Beginning
Grade Level: 10-12 A-G Approved

Students will become technically and aesthetically proficient with both traditional and digital photography processes. Students will learn to operate a manual SLR film camera, process black and white film and prints, use a scanner, a digital camera, manipulate images in Adobe Photoshop CS4, use a photography studio and create a digital portfolio. This course will also explore the aesthetic, technical, cultural and historical aspects of photography and its role as a form of visual communication. Upon successful completion of course students earn 3 credits at Chabot.

Photography – Advanced

Grade Level: 11-12 A-G Approved

Students continue to build skills both in taking photos using digital cameras and film cameras and using Industry Standard software such as Photoshop CS4 for digital editing. Students will make a digital a print portfolio of images. Upon successful completion of course students earn 3 credits at Chabot..

Yearbook

Grade Level: 11-12 A-G Approved

In this entirely product-oriented class, student work collaboratively to create the Arroyo High School yearbook. Students plan the theme and design the yearbook, collect images, write copy and layout pages for the book, and finally produce and market the book to the school.

Future Academy Career Path Courses

Cultures and Identities – Social Science
Grade Level: 9 A-G Approved
This semester course will focus on an investigation of cultures within several geographic regions of the world today. It will include cultural studies of the Middle East, Latin America, Sub-Saharan Africa, South Asia, and East Asia. This study will also compare characteristics of the cultures studied with those of similar and diverse cultures. Topics of study will include the religions, ideologies, and values of the culture; its language; its law and education; its literature; and its arts. Attention will be given to the culture's historical, economic, and political development across time.

Introduction to Education
Grade Level: 10 A-G Approved
This course is aligned with the California Career and Technical Education (CTE) Standards. The course will introduce students to historical, psychological, and legal issues in American Education. Students will engage in persuasive writing and speaking, analyzing data, and researching current topics in education. Teaching will be emphasized through lesson design and teaching experiences. Students will engage with guest speakers and participate in various field trips to education al organizations, schools, and colleges. In addition, students will create an online portfolio, resume, and complete unique projects related to college and careers in the education field.

Developmental Psychology of Adolescence
Grade Level: 11 A-G Approved
This course will provide students with a background in psychology and its applications, as well as a study of adolescence growth and development. It goes beyond concepts of famous psychologists to teach skills that help prepare students for educational career, future parenting, and careers that required knowledge in youth development. Students will begin to learn mindfulness practices, such as mediation and yoga, as an alternative approach to mental health. Curriculum will include extensive reading of theory and written reflection on the theory and applications of adolescence psychology and development, as well as an in-depth analysis of human rights and the creative expression of rights. *Prerequisite: Successful completion of Introduction to Education.*

Developmental Psychology of Children
Grade Level: 12 A-G Approved
This course is an academic, college-prep elective that continues to explore concepts in Developmental Psychology from conception through adolescence. This course explores the stages of child development and requires students to learn the application of these stages. In addition, this course focuses on mindfulness and yoga as alternative approaches to self-awareness and mental health. This course prepares students for teaching elementary school children, as they provide monthly lessons to classes at a neighboring elementary school Throughout the year, students develop a deeper sense of self, a stronger understanding of psychological theories and applications, and an ability to

take a leadership role in their community and beyond. *Prerequisite: Successful completion of Developmental Psychology of Adolescence.*

Health and Medicine Career Path Courses

Principles in Biomedical Science (PBS)
Grade Level: 10 A-G Approved
This PLTW course is a pathway course specifically for Academy of Health and Medicine students who are interested in pursuing careers in health and medicine fields. The course provides an introduction to the biomedical sciences through hands-on projects and problems. Students investigate the human body systems and various health conditions, including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, research processes and bioinformatics. Key biological concepts, including homeostasis, metabolism, inheritance of traits, and defense against disease are embedded in the curriculum. Engineering principles, including the design process, feedback loops, and the relationship of structure to function are also incorporated. *Prerequisite: Successful completion of algebra and successful completion of biology or concurrent enrollment in biology.*

Human Body Systems (HBS)
Grade Level: 11-12 A-G Approved
This PLTW course is a pathway course specifically for Academy of Health and Medicine students who are interested in pursuing careers in health and medicine fields. Students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real world cases and often play the role of biomedical professionals to solve medical mysteries. *Prerequisite: Successful completion of biology. Highly recommended: Completion of Principles in Biomedical Sciences*

Biotechnology
Grade Level: 12
See description in science section of course offerings.

Tech Links Career Path Courses

Business Economics and Finance
Grade Level: 12 A-G Approved
This course is the second class of a two year career pathway. It is an experiential learning course which provides students with knowledge of business and global business economics. Students learn about business planning, marketing and personal finance. The students explore financial aspects of credit, money management, and risk management in a global economy. Students apply macroeconomics theory in terms of supply and demand, pricing, and marketing through various class projects. This class is held in a computer lab, which provides access to the internet and simulates a true business environment. All students complete their own personal financial plan for short, medium and long term goals. Students can participate in cooperative work experiences that provide graduation credit, and mentoring. Students are encouraged to participate in the professional youth organization known as NFTE (Networking for Teaching Entrepreneurship). This course provides Dual Enrollment and college credits.

Business Ownership
Grade level: 10-11 A-G Approved
This course is the first class of a two year career pathway. This course focuses on student development, knowledge and skills vital for careers in business and entrepreneurship. During the first semester students will learn how to write a business plan to start their own small business. This is a very creative hands-on business class that supports student creativity and ownership of ideas. Academic areas of study include, but are not limited to: business law and ethics, financial strategies, and how to overcome the challenges of business ownership. During the second semester students will take their businesses global and learn about the international business environment and its effects on small business and entrepreneurship. Students can participate in on the job cooperative training that provides high school graduation credit, mentoring and participate in the professional youth organization known as NFTE (Network for Teaching Entrepreneurship.) This course provides Dual Enrollment and college credits.

Marketing
Grade Level: 10-12 A-G Approved
This class is designed to help students develop skills for careers in marketing and/or for further instruction leading to careers in business. Through classroom instruction students will learn the core competencies of marketing. Students will apply marketing concepts by creating a professional portfolio and participating in marketing class projects (i.e. Food Marketing and social media campaign) as work samples. Students will learn about career development laws and will acquire knowledge to make better informed consumer choices. Through DECA (An Association of Marketing and Business Students), members will gain skills to enhance their self-confidence and leadership skills by participating in and traveling to career development competitions. Students will acquire leadership, computer and communication skills to assist them in being responsible young adults in their community, education and in the workforce. Students who are employed

can earn up to 10 additional credits per semester. This course provides Dual Enrollment and college credits.

Business Job Skills
Grade Level: 9
This is an academically challenging course for freshmen that allows students to demonstrate mastery of professionalism and self-awareness. The primary objective of this course is to help students obtain a better understanding of their own interests, personal growth, and ethics pertaining to education and career. Students will be able to demonstrate critical thinking skills, evaluate ideas and information, and analyze and synthesize qualitative evidence (both in the classroom and in the community). This course will enable students to establish a breadth of understanding as it relates to communication skills, identifying career interests and educational opportunities through development of interpersonal skills, leadership skills, and personal selling. Real world applications and research focused on educational and career options will answer the essential question "Who Am I?" Students will be asked to answer this essential question through many mediums to include but not limited to the following: Resume, Letter of Introduction, Biography, Educational Interests, Career Interests, a Branding Me Project (Creating a Personal Brand for Self), PowerPoint commercial "Me"-Creating a Commercial about self for presentation, Work Sample-Personal Strength, Leadership Style, Public Speaking, Ethics, Verbal and Non-Verbal Communication. This course is supported by NFTE (Network for Teaching Entrepreneurship.)

Trend Academy Career Path Courses

Fundamentals of Design
Grade Level: 9
This course is intended for students who are interested in architectural design, engineering, construction, and design. The course is interdisciplinary: it integrates art, history, construction, math, science, and design principles. The first half of the class focuses on perspective drawing, culminating in the design and construction of a house. The second half of the class focuses on geometric constructions, culminating in the design and construction of a bridge.

Introduction to Engineering Design (IED)
Grade Level: 10 A-G Approved
Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software, and use an engineering notebook and engineering methodologies to document their work. The major focus of the course is to expose students to the design process, research, and analysis, teamwork, communication methods, global and human impacts, engineering standards and technical documentation.

Principles of Engineering (POE)
Grade Level: 11 A-G Approved
This survey course of engineering exposes students to some of the major concepts they'll encounter in a postsecondary engineering course of study. Students have an opportunity to investigate engineering and high-tech careers and to develop skills and understanding of course concept. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students also learn how to document their work and communicate their solutions to peers and members of the professional community. The four major units of study are: energy and power (including simple machines and circuitry); materials and structure (including material properties and statics); control systems (including machine control and robotics); and statistics and kinematics (including potential and kinetic energy and ballistics).

Engineering Design and Development (EDD)
Grade Level: 12 A-G Approved
The entire course revolves around identifying, researching, and solving problems through the use of engineering. This will require students to research, design, develop, test, and present a prototype designed to solve their specific problem. There are different evaluative steps built in to this process, and there must be a final product produced and evaluated. Specifically, the challenge will revolve around robotics and a robotics competition.

Exploring Computer Science

Grade Level: 10 -12 A-G Approved

This course is designed to introduce students to the breadth of the field of computer science through an exploration of engaging and accessible topics. Rather than focusing the entire course on learning particular software tools or programming languages, the course is designed to focus on the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve particular problems. The goal of this course is to develop in students the computational practices of algorithm development, problem solving and programming within the context of problems that are relevant to the lives of today's students. Students will also be introduced to topics such as interface design, limits of computers, and societal and ethical issues. *Prerequisite: Successful completion of geometry.*

AP Computer Science

Grade Level: 11-12 A-G Approved

The course is an introduction to computer science. The course teaches Java programming language, emphasizing object-oriented programming methodology with a concentration on problem solving and algorithm development, and is meant to be the equivalent of a first semester college-level course in computer science. It also includes the study of data structures, design, and abstraction. *Prerequisite: Concurrent enrollment in math analysis.*

AP Principles of Computer Science

Grade Level: 10-12 A-G Approved

Students work in teams to develop computational thinking and solve problems. The course does not aim to teach mastery of a single programming language but aims instead to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. The course also aims to build students' awareness of the tremendous demand for computer specialists and for professionals in the field who have computational skills. The course also aims to engage students to consider issues raised by the present and future societal impact of computing.