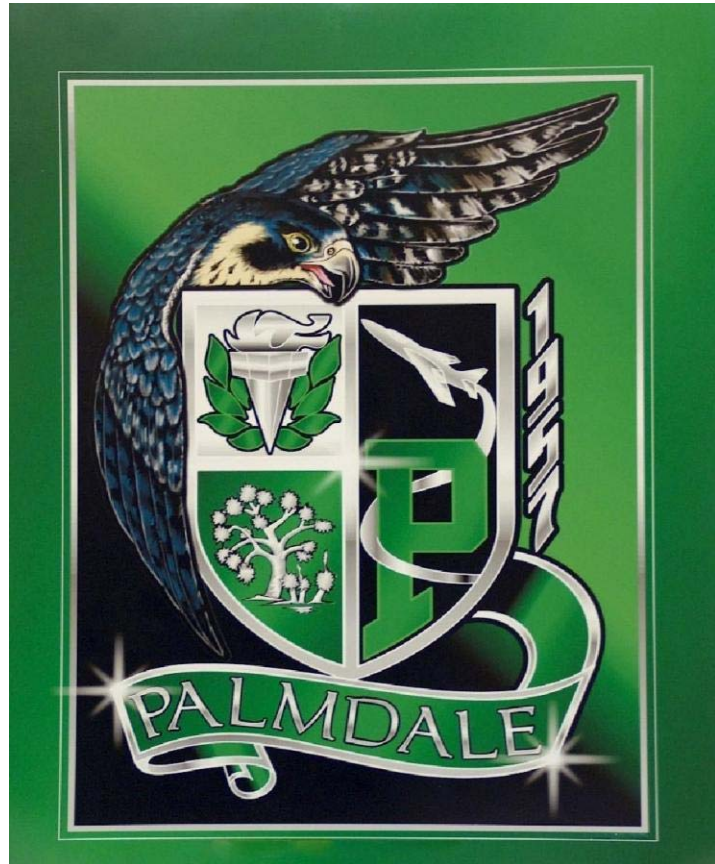


COURSE CATALOG

2018-2019



Palmdale High School
2173 East Avenue R
Palmdale, California 93550

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Non Discrimination Statement: AVUHSD is committed to equal opportunity for all individuals in education. District programs and activities shall be free from discrimination based on sex, race, color, religion, national origin, lack of English skills, ethnic group, marital or parental status, physical or mental handicap or any other unlawful consideration. The district shall promote programs that ensure these discriminatory practices are eliminated in all district activities. The lack of English shall not be a barrier to admission and participation in district programs. [EC Section 56501]. There are certain rights under the law, including Title VI of the Civil Rights Act of 1974, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the individuals with Disabilities Act. The California Department of Education, and the US Department of Education Office for Civil Rights have the authority to enforce these laws and all programs and activities which receive Federal funds [EC Sec. 260].

ANTELOPE VALLEY HIGH SCHOOL DISTRICT GRADUATION REQUIREMENTS

CREDITS

ENGLISH.....	40
MATH (Must pass Algebra I).....	30
SCIENCE (Total: 20 credits)	
Physical.....	10
Life.....	10
SOCIAL STUDIES (Total: 30 credits)	
World History.....	10
U.S. History.....	10
Civics.....	5
Economics.....	5
HEALTH.....	10
PHYSICAL EDUCATION.....	20
FOREIGN LANGUAGE/VISUAL OR PERFORMING ARTS.....	
	10
ELECTIVES.....	70
TOTAL CREDITS.....	230

POST HIGH SCHOOL EDUCATION

Students are encouraged to seek academic, vocational, and college counseling throughout their four-year stay at Palmdale. In this way students can make certain that they are taking appropriate vocational courses or are satisfying admissions requirements for the college of their choice.

CALIFORNIA COMMUNITY (JUNIOR) COLLEGES

Community colleges admit any student who is a graduate of a high school or is at least 18 years of age. Antelope Valley College is our local community college. However, students may attend a community college outside of the Antelope Valley.

CALIFORNIA STATE UNIVERSITY & COLLEGE SYSTEM

Twenty-three (23) campuses comprise this system:

www.calstate.edu/apply

Admission is based upon the student's grade point average (grades obtained in 10th, 11th, and 12th grades, excluding P.E.) and bonus points for each "C" or better in approved honors courses, in ratio with an SAT or ACT score. Students with a GPA lower than 2.0 do not qualify for regular admission. The complete Eligibility Index table is available on the website.

Students must complete a specific course sequence called the "a-g" pattern of courses and receive a "C" or better in each course in order to be considered for admission:

- a. History/Social Science – 2 years
- b. English – 4 years
- c. Mathematics 3 years (4 recommended)
- d. Laboratory Science – 2 years (3 recommended)
- e. Foreign Language (the same language) – 2 years (3 recommended)
- f. Visual/Performing Arts – 1 year (consecutive semesters)
- g. Elective Courses (chosen from the subject areas listed above or approved college prep elective courses – 1 year)

UNIVERSITY OF CALIFORNIA

Ten campuses comprise this system:

"<http://www.ucop.edu/doorways/list>"

Students have to meet the same "a-g" pattern as the California State University system. The courses you take to fulfill the Subject Requirement must be certified by the University as meeting the requirement and must be included on your high school's UC certified course list. Your counselor will have a copy of this list. In addition the lists are available online.

PRIVATE COLLEGES AND UNIVERSITIES

Entrance requirements vary from institution to institution. It is important, therefore, that students obtain catalogues for all schools being considered. The Career Center has catalogues for many different institutions that can be checked out. The counselors can give students the address of any college in the country if they wish to send for their own copies of catalogues. Also, most institutions have their information available on the Internet. Serious consideration concerning college applications should begin no later than the 11th grade. Students are encouraged to see their counselor for college and financial aid information.

Students are urged to visit college campuses before applying. Information on special college visitation days and how to arrange for your own tour is available in the Counseling Office and through the Daily Bulletin announcement.

To check your child's latest grades, go to
"Power School Login" located online at
"<http://www.phsfalcons.org>"

During this time, students will select their courses for the following year. The four-year plans and the Course Description Booklet available on-line should be used in making course selections. This is the only opportunity students have to select their courses; counselors will program students who do not return registration materials by the deadline.

Students attending Palmdale High School can select from several different programs, academies and pathways. These include:

ADVANCED PLACEMENT

Open to Grades: 10 – 12

Student should contact their individual Counselor for more information

AVID

Open to Grades 9-12. Contact: Angela Forbes for information via email to afortbes@avhsd.org

F.A.S.T. ACADEMY (Project Lead the Way)

Contact Ruben Rodriguez for information via email to rrodriguez@avhsd.org

HEALTH CAREERS ACADEMY

Open to Grades 9-12 Contact Tim Klein via email at TKlein@avhsd.org or Angela Hefter AHefter@avhsd.org

HONORS PROGRAM

Open to Grades: 9 – 10 through application

Students should contact their individual Counselor for more information

** Denotes A-G Approved Course

Palmdale High School 2018 - 2019

Course Descriptions

AVID

AVID 1

Description: This class focuses on the development of academic skills that will help students prepare for and succeed in college. Subjects covered include college and scholarship information, organization, time management, and study groups. Students will work together frequently and will attend college field trips and information sessions.

Prerequisites: Application and Interview

Total Credits: 5 per semester

AVID 2

Description: This class focuses on the development of academic skills that will help students prepare for and succeed in college. Subjects covered include college and scholarship information, organization, time management, and study groups. Students will work together frequently and will attend college field trips and information sessions.

Prerequisites: Application and Interview

Total Credits: 5 per semester

AVID 3

Description: This class focuses on the development of academic skills that will help students prepare for and succeed in college. Subjects covered include college and scholarship information, organization, time management, and study groups. Students will work together frequently and will attend college field trips and information sessions.

Prerequisites: Application and Interview

Total Credits: 5 per semester

AVID SENIOR SEMINAR

Description: This class focuses on the development of academic skills that will help students prepare for and succeed in college. Subjects covered include college and scholarship information, organization, time management, and study groups. Students will work together frequently and will attend college field trips and information sessions.

Prerequisites: Application and Interview

Total Credits: 5 per semester

AGRICULTURE SCIENCE

AGRICULTURE BIOLOGY**

Description: Agriculture Biology is a laboratory science course for the college bound student. The course emphasizes detailed knowledge of the central concepts, principles, and basic material of the following topics: molecular and cellular aspects of living things, structure and function of agricultural plants and animals, genetics, plant and animal diversity and principles of classification, ecological relationships, and animal behavior. Students will utilize current research methods and explore related career opportunities. Extensive laboratory experiments will be emphasized. Agriculture Biology is a college preparatory course fulfilling the lab science requirement for admission to University of California and California State Universities.

Prerequisites: Algebra 1

Total Credits: 5 per semester

AGRICULTURE CHEMISTRY**

Description: This course explores the physical and chemical nature of soil as well as the relationships between soil, plants, animals and agricultural practices. Students will examine properties of soil and land and their connections to plant and animal production. Using knowledge of scientific protocols as well as course content, students will develop an Agriscience research program to be conducted throughout the first semester of the course. To complete that whole project each student will investigate and test an Agriscience research question by formulating a scientific question related to the course content, formulating a hypothesis based on related research, conducting an experiment to test the hypothesis, collecting quantitative data, and forming a conclusion based on analysis of the data. The result of this research program will be an in depth research and experimentation paper that is technically written, based on scientific protocol, and cited using APA formatting. Additionally, students will develop and present a capstone soil management plan for agricultural producers, using the content learned throughout the course. Throughout the course, students will be graded on participation in intracurricular FFA activities as well as the development and maintenance of an ongoing Supervised Agricultural Experience (SAE) program.

Total Credits: 5 per semester

AGRICULTURAL EARTH SCIENCE**

Description: This course examines the disciplines within geology and oceanography, including major concepts of seismology, volcanology, hydrology, paleontology, mineralogy, and petrology. By examining the composition, structure, processes, and dynamics of these systems, students gain a clearer understanding of their planet using agriculture as the learning vehicle. Agricultural Earth is a college-preparatory course fulfilling the elective requirement for admission to the University of California and California State Universities.

Prerequisites: None

Total Credits: 5 per semester

AGRICULTURAL MECHANICS 1

Description: This is an introductory course designed to introduce students to the entry-level skills required for career opportunities in mechanics. The class stresses work habits, job ethics, and mechanical skills useful to the average homeowner. Specific skills taught include arc welding, mig welding, oxy-acetylene cutting, carpentry, masonry, tool care and tractor driving. These skills are taught through a combination of formal class work and practical application on project construction.

Prerequisites: None

Total credits: 5 per semester

AGRICULTURAL MECHANICS 2

Description: The Agricultural Mechanics 2 is a continuation course of the Agricultural Mechanics 1 including but not limited to the safe and proper use of all major equipment items used in the field of agricultural mechanics. An ongoing development of personal skills and work ethics will be instilled in each of the students. Special emphasis will be placed on the character traits of the individual student that will afford them the ability to adapt into the everyday work force. Additionally, each student will demonstrate their skills for job placement and the requirements to enter the work force within the agricultural mechanics industry.

Prerequisites: Grades 10 – 12, "C" or better in Ag Mechanics 1 or teacher approval

Total credits: 5 per semester

AGRICULTURE MECHANICS ADVANCED

Description: Agriculture Projects is a continuation of Ag Mechanics 1 and 2. Students will have the opportunity to research, design, and build projects in multiple Medias, woodworking and metal. Advanced training in specialized tools and exploration of non-traditional careers will be emphasized. Planning and design of projects will also be a focus including budgeting, blue prints and marketing of products. Practical applications of skills in a shop laboratory with an emphasis on safety are a priority in this course.

Prerequisites: Ag Mechanics 1 & 2 or teacher approval

Total credits: 5 per semester

ENVIRONMENTAL HORTICULTURE SCIENCE**

Description: This is an introductory course dealing with producing and maintaining ornamental plants. The class stresses work ethics, work habits, career opportunities, entry-level skills development, and leadership skills. Specific skills taught include plant identification, propagation, care and landscaping. These skills are taught via combination of formal classroom instruction and practical application in the horticulture laboratory. Business and leadership skills are taught through the supervised project and FFA competition.

Prerequisites: None

Total Credits: 5 per semester

INTRO TO VITICULTURE

Description: Designed to show the students how to gain an appreciation of the field of grape growing and its social and economic value based on societies' needs and wants. This curriculum will readily utilize technology to stimulate student interest, train students in current industry computer, global imaging and weather mapping systems and prepare them for a growing job market. Viticulture helps to develop personal work habits and attitudes, character traits, and abilities to become a successful citizen. Additionally, each student will become aware of and apply some of the basic skill requirements of job opportunities in the field of Viticulture.

Prerequisites: Grades 11 -12

Total Credits: 5 per semester

BEHAVIORAL SCIENCE

PSYCHOLOGY**

Description: Psychology is the science dealing with behavioral, mental and emotional processes, and with the relationship between the organism's environment, heredity and physical state. As a science, psychology is based upon scientific research and empirical data. Students enrolled in this course are introduced to psychological phenomena, facts, theories, and treatments associated with the major sub fields of psychology. The course content includes: the history of psychology; research methods; biopsychology; consciousness; cognition; human development; personality; mental disorders; treatments; and socio-cultural influences upon an individual.

Prerequisites: Grades 11 – 12

Total Credits: 5 per semester

PSYCHOLOGY AP**

Description: This course will introduce students to the systematic and scientific study of the behavior and mental process of humans as well as other animals. Students will study psychological facts, principals, and phenomena associated with the major sub fields of psychology as well as methods used by psychologists in their science and practice. The learning experience will be equivalent to most college introductory psychology courses. This course will prepare students to take the exam for Advanced Placement (AP) Psychology.

Prerequisites: Grades 11-12

Total Credits: 5 per semester

HEALTHFUL LIVING

Description: Healthful Living, a general health class, is 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 overcome such teenage experiences as low self-esteem, stress management, peer pressure, substance use and abuse, teenage sexuality, and decision-making leading to constructive life goals. Additional health subjects, such as nutrition and eating disorders, diseases, personal relationships, human reproduction, sexually transmitted diseases, and child abuse, are taught with an emphasis on the practical aspects of adjusting healthful living topics with their families. It is hoped that values and morals of the family unit are strengthened as a result of this parent/child communication.

Prerequisites: None

Total Credits: 5 per semester

BUSINESS & TECHNOLOGY

MULTIMEDIA CONTEMPORARY DESIGN I**

Description: This introductory course is designed for any student who is interested in learning about the use of technology to communicate great ideas through the use of images, sound and animation. You will learn about the origins of graphic design and interactive media and how both have impacted the course of humanity. Learn to use design software such as Adobe Photoshop, Fireworks and Illustrator as well as Dreamweaver and Flash. You will create everything from print-ready photography and graphic designs to video shorts, Flash animations and professional-looking websites. MMCD I will prepare you for MMCD II which will take you deeper into all of the above.

Prerequisites: None

Total Credits: 5 per semester

MULTIMEDIA CONTEMPORARY DESIGN II**

Description: This is the second course in a three course pathway In MMCD II you will go deeper into all areas introduced in Multimedia Contemporary Design I. Advanced photography and computer illustration techniques will be taught. Your primary focus will be creating for the web, print publications and electronic distribution. You will also explore the world of 2D and 3D animation. Projects will be completed individually and in teams and will prepare you for real-world opportunities. You will be prepared for industry certifications by the end of this course and will be ready for the third course in this pathway which is Digital Arts: Design for the Web, formally Web managers 1-4.

Prerequisites: Multimedia Contemporary Design I

Total Credits: 5 per semester

EDUCATION

FOUNDATIONS IN EDUCATION

Description: This course provides instruction and training for students interested in careers related to the teaching and child care professions. Students who achieve competency in this course will develop skills in development of the young child, guidance of the young child, child abuse laws and regulations, and activity plans to use with children and will be prepared for entry-level employment. Entry-level positions include teacher's assistant or instructional aide.

Prerequisites: None

Total Credits: 5 per semester

ENGLISH

ENGLISH 9**

Description: In English 9 students continue to develop and refine essential skills in reading, writing, speaking and listening. Through the study of core works of literature, 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, participate in, and contribute to a common literary heritage. 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 9 and subsequent courses lies in the length, complexity, sophistication, and range of source materials.

Prerequisites: None

Total Credits: 5 per semester

ENGLISH 9 HONORS**

Description: In Honors English 9 students continue to develop and refine essential skills in reading, writing, speaking and listening using high order thinking and critical analysis. Through the study of core works of literature, nonfiction, supplementary and technical texts, students will develop excellence 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 heritage. 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 college or a career. Additionally, they will exercise and refine their abilities to speak to different audiences for a variety of purposes. The difference between English 9 and Honors lies in the length, complexity, sophistication, and range of source materials, including summer reading.

Prerequisites: None

Total Credits: 5 per semester

ENGLISH 10**

Description: In English 10 students continue to develop and refine essential skills in reading, writing, speaking and listening. Through the study of core works of literature, 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, participate in, and contribute to a common literary heritage. 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 college or a career. Additionally, they will exercise and refine their abilities to speak to different audiences for a variety of purposes. The difference between English 10 and previous and subsequent English courses lies in the length, complexity, sophistication, and range of source materials.

Prerequisites: None

Total Credits: 5 per semester

ENGLISH 10 HONORS**

Description: In Honors English 10 students continue their growth in the life skills of reading, writing, speaking, thinking and listening. Through the study of core works of literature, nonfiction, supplementary and technical texts, students will develop their verbal processing and designing skills, steadily increasing their capacities. Through oral and written response to the literature, students will come to understand and appreciate a common literary heritage. Students will learn to analyze and comprehend material from literature and info text (such as newspapers, journals, and essays) and make useful applications to their own personal and professional lives. Additionally, they will exercise and refine their abilities to speak to different

audiences for a variety of purposes. The difference between English 10 and English 10 Honors will be measured in the level of performance demonstrated in completed projects. The honors students will be held to a higher standard of acceptable work.

Prerequisites: English 9 Honors with 'C' or better or teacher recommendation, summer reading assignment.

Total Credits: 5 per semester

ENGLISH 11**

Description: 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 college and for a career. 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.

Prerequisites: None

Total Credits: 5 per semester

ENGLISH 12**

Description: 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.

Prerequisites: None

Total Credits: 5 per semester

ENGLISH CREATIVE WRITING

Description: Creative Writing is a class designed to increase the student's appreciation for, love of and ability to write poetry, short stories and plays/screenplays. The course will be equally split between studying great writers, and working toward become great writers.

Prerequisites: None

Total Credits: 5 per semester

ENGLISH 12 ETHNIC CULTURES**

Description: In celebrating the rich diversity among cultures, this thematic approach to literature encourages the student to form connections between the past, present and future through selected readings: novels, plays, poetry, essays, and videos from classic and contemporary sources originating primarily from the non-English speaking world. Emphasis will be on thoughtful discussions and exchange of ideas. Students will also prepare for college entrance exams and writing requirements. This class is open to all seniors who desire to be ready for their future in the global society and economy. This course meets the UC and CSU requirements for English 12.

Prerequisites: None

Total Credits: 5 per semester

ENGLISH 12 - SCIENCE FICTION**

Description: Students in English 12 Science Fiction examine seminal texts ranging from ancient Greek myth to modern fantasy. The course takes a chronological approach to the texts, and focuses on the impact of imaginative works on world literature. Students develop core reading and writing skills including historical analysis, critical approaches to texts, reference to expository works related to the subject, and ability to produce texts in a variety of modes. Students also examine works of science fiction and fantasy and make connections between the authors' themes and their own experiences through cooperative projects, writing, and public speaking.

Prerequisites: None

Total Credits: 5 per semester

ENGLISH LANGUAGE AND COMPOSITION AP**

Description: AP Composition emphasizes expository, analytical, and argumentative writing that forms the basis of academic and professional communication as well as personal and reflective writing that fosters the development of writing in any context. Students are expected to express ideas in a concise, persuasive, and logical manner, focusing on the elements of rhetoric, such as purpose, audience, form, and tone in both their own writing and assigned readings. Students are expected to read independently various genres by American writers of literary merit, including novels, speeches, etc. Students are encouraged to take the A.P. College Board Exam, which provides students with the opportunity to earn college credit and appropriate placements at the university level.

Prerequisites: "C" or better in English 10 Honors, or teacher recommendation, summer reading assignment.

Total Credits: 5 per semester

ENGLISH LITERATURE AND COMPOSITION AP**

Description: 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.

Prerequisites: "B" or better in English Language and Composition AP, or teacher recommendation, and summer reading assignment.

Total Credits: 5 per semester

EXPOSITORY READING AND WRITING**

Description: The goal of the Expository Reading and Writing Course is to prepare college-bound seniors for the literacy demands of higher education. The cornerstone of the course presents a process for helping students read, comprehend, and respond to non-fiction and literary texts. Modules also provide instruction in research methods and documentation conventions. They will read closely to examine the relationship between an author's argument or theme and his or her audience and purpose, to analyze the impact of structural and rhetorical strategies, and to examine the social, political, and philosophical assumptions that underlie the text. Written assessments and holistic scoring guides conclude each unit.

Prerequisites: None

Total Credits: 5 per semester

LITERACY SUPPORT 1

Description: An intervention class for students who are concurrently enrolled in English 9. The teachers will monitor students' performance in their English 9 and provide support to improve that performance by using READ 180 to increase the student's reading level. This support will be provided in a well-organized classroom environment. The students will be given consistent reading instructions while also receiving Language Arts instruction. The course will also provide students a chance to master missing English prerequisite skills, master the California English Language Arts Standards, and help students prepare for the California High School Exit Exam.

Prerequisites: Placement determined by diagnostic tests, CST scores, and/or teacher recommendation.

Total Credits: 5 per semester

LITERACY SUPPORT 2

Description: An intervention class for students who are concurrently enrolled in English 10. The teachers will monitor students' performance in their English 10 and provide support to improve that performance by using READ 180 to increase the student's reading level. This support will be provided in a well-organized classroom environment. The students will be given consistent reading instructions while also receiving Language Arts instruction. The course will also provide students a chance to master missing English prerequisite skills, master the California English Language Arts Standards, and help students prepare for the California High School Exit Exam.

Prerequisites: Placement determined by diagnostic tests, CST scores, and/or teacher recommendation

Total Credits: 5 per semester

YEARBOOK

Description: In this course students accepted in the class will complete the work demanded by their elected or appointed positions and the general demands of the class as determined by the advisor, editor(s), the vice principal assigned as supervisor for the class, and/or the company contracted to publish the YEARBOOK, with the ultimate goal being to finance and complete the yearbook.

Prerequisites: Grades 11-12

Total Credits: 5 per semester

ENGLISH LANGUAGE DEVELOPMENT

BEGINNING ELD

Description: Course Description: The English Language Development (ELD) class is not grade specific. This class is designed to meet the needs of students by developing their English oral/listening, reading, and writing skills. In Beginning English Language Development (ELD), students will work towards meeting the Beginning (B) and Early Intermediate (EI) language proficiency standards. These standards are part of the Listening and Speaking, Reading Word Analysis, Reading Fluency and Systematic Vocabulary Development, Reading Comprehension, Writing Strategies and Applications, Writing Conventions, and Literary Response and Analysis Strands.

Prerequisites: None

Total Credits: 5 per semester

INTERMEDIATE ELD

Description: The English Language Development (ELD) class is not grade specific. This class is designed to meet the needs of students by further developing their English oral/listening, reading, and writing skills. In Intermediate English Language Development (ELD), students will work towards meeting the Intermediate (I) language proficiency standards. These standards are part of the Listening and Speaking, Reading Word Analysis, Reading Fluency and Systematic Vocabulary Development, Reading Comprehension, Writing Strategies and Applications, Writing Conventions, and Literary Response and Analysis Strands.

Prerequisites: None

Total Credits: 5 per semester

F.A.S.T. - FALCON ACADEMY FOR SUSTAINABLE TECHNOLOGY

BUILDING TECHNOLOGY AND DESIGN

Description: Building Technology and Design is the 12th grade capstone course in the Building Technology Pathway of the FAST Academy. It provides instruction and training for students interested in the construction Industry trades. Students will have knowledge and skills in Computerized Aided Design, Planning, Estimating, Carpentry, Plumbing, Electrical and workforce preparation. Students will be prepared for entry-level employment positions.

Prerequisites: FAST Academy Student, 12th Grade

Total Credits: 10 per semester

CIVIL ENGINEERING AND ARCHITECTURE** (CEA) – PROJECT LEAD THE WAY (PLTW)

Description: Civil Engineering and Architectural (CEA) is the 11th grade concentrator course of the Building Technology Pathway in the FAST Academy. Students learn about various aspects of civil engineering and architecture and apply their knowledge to the design and development of residential and commercial properties and structures. In addition, students use 3D design software to design and document solutions for major course projects. Students communicate and present solutions to their peers and members of a professional community of engineers and architects. This is a "G" Elective Credit Course.

Prerequisites: FAST Academy Student, 11th Grade

Total Credits: 10 per semester

COMPUTER INTEGRATED MANUFACTURING – PROJECT LEAD THE WAY (PLTW)

Description: Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

Elective Credit Course.

Prerequisites: 11th grade, enrollment in FAST Academy Automotive Engineering Pathway

Total Credits: 5 per semester

ENGINEERING DESIGN AND DEVELOPMENT

Description: The knowledge and skills students acquire throughout PLTW Engineering come together in EDD as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing EDD ready to take on any post-secondary program or career.

Prerequisites: Successfully completed Introduction to Engineering Design and Principles of Engineering

Total Credits: 10 credits per semester

PRE-ENGINEERING INTERNSHIP (UCCI)** – PROJECT LEAD THE WAY (PLTW)

Description: This class offers students a real world opportunity to discover and understand principles of physics, engineering design and green-clean technologies. From electric cars to wind farms our world is driven by innovations that come to life through the marriage of science and engineering. This academic course that empowers students with the knowledge, attitudes and skills that will prepare them to become the next generation of innovators, offering students a real world opportunity to discover and understand principles of physics, engineering design and green-clean technologies. Students working individually and in teams participate in a series of hands-on experimental projects such as building solar energy systems and personal transportation devices to explore both alternative and traditional energy sources and transportation. The projects proved a foundation for data collection, analysis, reflection, presentations, and technical writing skills. Through these experiences students hone critical thinking, communication and design concepts.

Prerequisite: Grades 10-12, C or better in Algebra 1

Total Credits: 5 per semester

INTRODUCTION TO ENGINEERING DESIGN** (IED) – PROJECT LEAD THE WAY (PLTW)

Description: Introduction to Engineering Design (IED) is the 10th grade level course of the FAST Academy and it is appropriate for students who are interested in design and engineering. IED focuses on the design process and its application. Through hands-on projects, students apply engineering standards and document their work. Students use industry standard 3D modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community. This is a University of California "G" Elective credit course

Prerequisite: None

Total Credits: 5 per semester

PRINCIPLES OF ENGINEERING** (POE) – PROJECT LEAD THE WAY

Description: Students will design, build, and test a variety of projects. They will learn about the design process, engineering systems, the strength of materials, and reliability.

Prerequisites: FAST Academy Student

Total Credits: 5 per semester

FOREIGN LANGUAGE

SPANISH 1**

Description: This course consists of a series of linguistic activities and cultural topics which enables the student to communicate about daily activities at a survival level. At the end of this course, the student will be able to understand, speak, read and write about high frequency expressions and phrases and make themselves understood by the teacher and sympathetic Spanish speakers.

Prerequisites: None

Total Credits: 5 per semester

SPANISH 1 HONORS**

Description: 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

Prerequisites: None

Total Credits: 5 per semester

SPANISH 2**

Description: This course consists of a series of linguistic activities and cultural topics which enables the student to communicate about daily activities at a functional level. These activities are chosen for their personal significance to the students, thereby providing an aspect of spontaneity to the communication. At the end of the course, the student will be able to understand, speak, read, and write about basic daily activities and make themselves understood by a sympathetic Spanish speaker. This course is a continuation of language skills and concepts experienced in Spanish 1.

Prerequisites: Grades 10 – 12, "C" or better in Spanish 1

Total Credits: 5 per semester

SPANISH 2 HONORS**

Description: 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.

Prerequisites: Successful completion of Honors Spanish One teacher recommendation

Total Credits: 5 per semester

SPANISH 3**

Description: This course consists of a series of linguistic activities and cultural topics which enables the student to communicate about daily activities at a semi-fluent level. These activities are chosen for their personal significance to the

students. At the end of this course, the student will be able to understand, speak, read, and write about daily activities and make themselves understood by a sympathetic speaker of Spanish.

Prerequisites: Grades 11 – 12, "C" or better in Spanish 2

Total Credits: 5 per semester

SPANISH 4**

Description: This course continues the review of Spanish grammar, idioms, and vocabulary in everyday use. The course is highlighted by intensive and extensive readings and discussions of essays, novels, plays, and poetry from Spanish and Spanish-American literature.

Prerequisites: Grades 10-12, "C" or better in Spanish 3

Total Credits: 5 per semester

SPANISH LANGUAGE AND CULTURE AP**

Description: This course consists of a series of linguistic activities and cultural topics that will enable the student to communicate and understand main ideas of all speech in the language, including idiomatic expressions, and technical discussions. At the end of this intensive course, the student will be able to understand, speak, read, and write about a variety of concepts and subjects, in detail and style, and length, and be understood by a fluent speaker of the language. This course prepares students to take the Advanced Placement Test. College credit may be earned based on test scores. Prerequisites: Grades: 9 – 12, "C" or better in Spanish 3, teacher signature.

Total Credits: 5 per semester

SPANISH LITERATURE AND CULTURE AP**

Description: This course uses a thematic approach to introduce students to representative texts (short stories, novels, poetry, and essays) from Peninsular Spanish, Latin American, and United States Hispanic literature. Students develop proficiencies across the full range of communication modes (interpersonal, presentational, and interpretive), thereby honing their critical reading and analytical writing skills. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the required readings. The course also includes a strong focus on cultural connections and comparisons, including exploration of various media (e.g., art, film, articles, literary criticism).

Grades: 9 – 12

Total Credits: 5 per semester

HEALTH CAREERS ACADEMY

BODY SYSTEMS AND DISORDERS**

Description: 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.

Prerequisites: Application turned into Mr. Klein

Total Credits: 5 per semester

MEDICAL SCIENCE 1**

Description: This course explores the relationship between science and medicine. Medical Science 1 expands on scientific principles taught in General Biology and explores advanced concepts in Anatomy, Physiology, Immunology and Microbiology. Laboratory exercises that help the students understand the process of disease on the human body will take place throughout the course. Students apply their skills and knowledge in a separate course, "Hospital/Community Health Occupations 1" at the local hospitals through a clinical internship. Learn about the complexities of the modern health care delivery system. Understand the structure, function, and maintenance of the major human body systems, such as the skeletal system, the anatomy and physiology of the muscular system, the major divisions of the nervous system, the organs of the digestive system, the cardiovascular system, the urinary and excretory system, and the respiratory system. Understand the importance of medical terminology in pursuit of a medical career, learning complex medical terms using translation methods that are part of medical terminology. Develop an understanding of the essential skills that are basic to all health care fields, such as the importance of infection control and universal precautions, proper measure for handling patients, learning about blood borne pathogens, aseptic and isolation techniques. Learn the necessity for taking vital signs as major indicators of patient health, such as the importance that temperature plays as an indicator of the presence of disease, the proper technique for taking a radial pulse and respiration, the correct procedures for taking blood pressure, the correct equipment used, and alternative sites for recording pressures. Develop an understanding for the weights and measures that are common to health care. Learn

the importance nutrition plays in the lives of the patients. Understand the importance patient observation and reporting play in the long term health of the patient, and understand the cycles of life that end with death.

Prerequisites: Health Careers Academy / ROP Application

Total Credits: 5 per semester

MEDICAL CLINICAL 1

Description: Students will take this course together with Medical Science as a double period. Students will be introduced to the skills required for entry into the health care occupations then will spend two days per week in clinical sites developing clinical skills. Identify the types of health organizations and the services that they offer to their patients, and compare and contrast the various types of managed care systems such as HMOs, PPOs, and primary care vs. critical care and the other major health care plans. Understand the importance of good oral communication skills. Given various scenarios, students will be able to identify the correct and incorrect behaviors while communicating with patients. Given a series of scenarios, students will describe the correct methods for dealing with each patient and their problem. Understand the need to develop a professional attitude when involved in the health care industry (JCAHO units). Understand the need for medical ethics in dealing with current health care issues. Compare and contrast the rights of the patients with the types of services available in medicine. Understand the legal responsibilities that health care professionals have as a part of their career. Understand the need for good body mechanics to insure worker health, as well as the health and wellbeing of patients. Understand the basic rules of lifting and work strategies to stay healthy. Learn at least six ways of transferring patients in a clinical setting, and at least four ways to position a patient in bed or on a gurney. Gain knowledge of specific community health care resources and site information that relate to career choices. Learn the requirements for clinical rotations.

Prerequisites: Health Careers Academy / ROP Application

Total Credits: 5 per semester

MEDICAL CLINICAL 2/MEDICAL CLINICAL 2 INTERNSHIPS

Description: Medical Science II allows the student to become involved with an internship at one of 70 different medical facilities in the Antelope Valley. Students attend an internship three days a week and attend class at Palmdale High School the remaining two. During the classroom time, students learn about hospital procedures and are certified in injection, EKG, CPR, and can sit for the Medical Assisting Exam to become Certified Medical Assistants. This is the next step for the senior student who has completed Medical Science I.

Prerequisites: Grade 12, medical Science/Clinical I, application

Total Credits: 10 per semester

EMERGENCY MEDICAL TECHNICIAN

Description: Welcome to the Antelope Valley Union High School District Emergency Medical Technician Program. It is the only non-profit EMT program for high school students during the regular high school day in Los Angeles County. The course is taught over 36 weeks and is 268 hours in length with 180 hours of theory, 88 hours of skills, and 24 hours of clinical time spent in both a Hospital Emergency Room and Ambulance. The curriculum is arranged so that you will be successful in passing the National Registry of Emergency Medical Technicians examination (NREMT). You will also be given the necessary additional training so that you will be able to certify with the Los Angeles County Department of Emergency Medical Services to work as an EMT in Los Angeles County.

Prerequisites: Grade 12, pass Biology, and Anatomy/Physiology with a C or better, signature from Mr. Klein

Total Credits: 5 per semester

MATHEMATICS

ADVANCED ALGEBRA w/ FINANCIAL APPLICATIONS

Description: Advanced Algebra with Financial Applications is a college-preparatory course that will use sophisticated mathematics to give you the tools to become a financially responsible young adult. The course employs algebra, pre-calculus, probability and statistics, calculus and geometry to solve financial problems that occur in everyday life. Real-world problems in investing, credit, banking, auto insurance, mortgages, employment, income taxes, budgeting and planning for retirement are solved by applying the relevant mathematics. Field projects, computer spreadsheets, and graphing calculators are key components of the course.

Prerequisites: 11th and 12th grade

Total Credits: 5 per semester

ALGEBRA 1**

Description: Symbolic reasoning and calculations with symbols are central in algebra. Through the study of algebra, a student develops an understanding of the symbolic language of mathematics and the sciences. In addition, algebraic skills and concepts are developed and used in a wide variety of problem-solving situations. Algebra will be presented in accordance with the California Standards.

Prerequisites: None

Total Credits: 5 per semester

ALGEBRA 1 SUPPORT

Description: Algebra 1 Support picks up the progression to algebra at whole number multiplication and builds a coherent narrative of understanding through fractions and decimals, proportional reasoning, and functional thinking. Concepts, visual models, and procedural strategies build on one another, opening up and facilitating new learning. Students enter the progression at different points based on their existing knowledge and progress at their own pace. Instruction is organized into two courses, each with nine blocks of instruction, featuring high-interest career themes. The focused content helps students make connections while learning to think algebraically.

Total Credits: 5 per semester

ALGEBRA 2**

Description: Algebra II deepens and extends the Algebra I course which studies the structure of the real number system and problem solving using equations, inequalities, and graphs and the simplification of algebraic expressions. This discipline complements and expands the mathematical content and concepts of Algebra 1 and Geometry. Students who master Algebra 2 will gain experience with algebraic solutions of problems in various content areas, including the solution of systems of quadratic equations, logarithmic and exponential functions, the binomial theorem, and the complex number system.

Prerequisite: Algebra 1

Total Credits: 5 per semester

ALGEBRA 2/ TRIGONOMETRY HONORS**

Description: This course covers all the essential topics of Algebra II and Trigonometry/Pre-Calculus in an advanced and accelerated manner. It covers all of the California Mathematics Academic content Standards (1998) for Algebra 2, Trigonometry and Probability and Statistics. This rigorous course includes the study of the California Standards in Algebra 2, Trigonometry, and Mathematical Analysis. These can be viewed at <http://www.cde.ca.gov/standards/>. Students will be prepared for the GSE in High School Mathematics; the STAR Exams; the SAT college entrance test; and a course in Calculus. The descriptions for Trigonometry and Math Analysis follow.

Prerequisite: A grade of "A" in Geometry, or a grade of "B" in Geometry and a grade of "A" in Algebra 1, or teacher recommendation

Total Credits: 5 per semester

CALCULUS AB AP**

Description: Calculus will be presented with the same level of depth and rigor, as are entry-level college and university calculus courses. Consideration of the College Board syllabi for the Calculus AB section of the Advanced Placement Examination in Mathematics will dictate the curricular decisions. Calculus is a widely applied area of mathematics and involves a beautiful intrinsic theory. Students mastering this content will be exposed to both aspects of the subject. Students will be prepared for the AP Calculus test, which requires the use of a graphing calculator. Graphing calculators are available for students' use.

Prerequisite: A grade of 'C' or better in either Honors Algebra 2/Trigonometry or Trig/Pre-Calculus or teacher recommendation

Total Credits: 5 per semester.

CALCULUS BC AP**

Description: Calculus BC encompasses such topics as differential equations and spends substantial time on infinite sequences and series. Consideration of the College Board syllabi for the Calculus AB section of the Advanced Placement Examination in Mathematics will dictate the curricular decisions. Calculus is a widely applied area of mathematics and involves a beautiful intrinsic theory. Students mastering this content will be exposed to both aspects of the subject. Students will be prepared for the AP Calculus test, which requires the use of a graphing calculator. Graphing calculators are available for students' use.

Prerequisite: A grade of 'C' or better in Calculus AB

Total credits: 5 per semester

GEOMETRY**

Description: Geometry is a course dealing with the organization of known facts into formal mathematical structures, and the study of various relationships and the measurement of geometric figures. The geometric skills and concepts developed in this discipline are useful to all students. Aside from these skills and concepts, students will develop their ability to construct formal logical arguments and proofs in geometric settings and problems.

Prerequisite: A grade of C or better in Algebra 1 and/or Algebra 2

Total Credits: 5 per semester

GEOMETRY/TRIGONOMETRY**

Description: This course is designed primarily for students who successfully complete Algebra 2 prior to taking a Geometry Course. The course will prepare students for the Entry Level Math Exam given by many of the UC's, the California Geometry CST and for Trig Pre-Calculus, which is the next course most of the students will enroll in. It covers the essential Geometry Standards and the California Trigonometry Standards.

Prerequisite: Grade of C or better in Algebra 2 or teacher recommendation

Total Credits: 5 per semester

INTRO TO PROBABILITY & STATISTICS**

Description: 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. Prerequisite: Grade 12
Total Credits: 5 per semester

STATISTICS AP**

Description: AP Statistics will introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will be exposed to four broad conceptual themes: 1) Exploring Data: Describing patterns and departures from patterns; 2) Sampling and Experimentation: Planning and conducting a study; 3) Anticipating Patterns: Exploring random phenomena using probability and simulation; and 4) Statistical Inference: Estimating population parameters and testing hypotheses. Mastery of this academic content will provide students with a solid foundation in probability and facility in processing statistical information. Students will be prepared for the AP Statistics test, which required the use of graphing calculator.

Prerequisites: Algebra 2

Total Credits: 5 per semester

TRIGONOMETRY/PRE-CALCULUS**

Description: 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 logarithm, 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.

Prerequisite: A grade of 'C' or better in Algebra 2 or Geo/Trig

Total Credits: 5 per semester

PHYSICAL EDUCATION

PE 1

Description: Physical Education 1 is composed of activities from four of the eight areas included in the Physical Education Framework and the Model Curriculum Standards. All students will be exposed to the areas of aquatics, individual sports, team sports, rhythms, and fitness for life. In addition, the students will be exposed to a health-related fitness program. Cognitive-based physical and health-related concepts and grade level physical fitness performance objectives will be reviewed, applied, and evaluated.

This year forms are core program and will act as the prerequisite for the Physical Education II and a sequentially developed elective program. Required for grade 9

Prerequisites: None

Total Credits: 5 per semester

PE 2

Description: Personal fitness is a course designed to meet the individual needs of students in the area of fitness, specifically in the areas of aerobics, cardio respiratory fitness, strength fitness, endurance fitness, and nutrition. Cognitive-based physical and health-related concepts and grade level physical fitness performance objectives will be reviewed, applied, and evaluated for all grade levels. Required for grade 10

Prerequisites: None

Total Credits: 5 per semester

PE ATHLETICS

Description: Interscholastic sports will be practiced. Open to all students whose interscholastic sport meets during the 6th period of the day. The Athletic Coordinator and the coach of each particular sport must give approval. 9th grade students on varsity team must have Principal's approval.

Prerequisites: None

Total Credits: 5 per semester

PE DRILL

Description: A course for learning marching and drill fundamentals leading to public performance with the marching band. All public performances are required of each member. Emphasis of second semester will be on music and marching fundamentals, as well as personal fitness and team sports.

Prerequisites: Grades 9-12, concurrent enrollment in Concert Band, Symphonic Band, Wind Ensemble, Percussion, or Show corps, Lab fees not to exceed \$ 25 each semester for equipment.

Prerequisites: None

Total Credits: 5 per semester

PE ELECTIVE

Description: All elective courses will be activity classes. Lifetime sports, individual, dual and team activities will be offered. Physical fitness will be addressed through daily stretching, calisthenics, jogging and other cardiovascular activities.

Prerequisites: None

Total Credits: 5 per semester

PE MODIFIED

Description: Student will be enrolled in regular P.E. II, P.E. Elective classes, or instructor, but I will limit the activities based on what the physical limitation is. Any student who does not meet the Adaptive P.E. requirements, but is limited in their ability to actively perform in PE I, II or PE Elective.

Prerequisites: Doctor's note

Total Credits: 5 per semester

PE ADAPTIVE (SPECIAL EDUCATION)

Description: Individual activities fitted to meet students' needs; i.e., board games, cards, checkers, darts, table tennis, some weight related exercises, and other motor skills to help develop student's individual needs and abilities.

Prerequisites: IEP placement only

Total Credits: 5 per semester

PE 3 – DANCE

Description: No description available

Prerequisites: Completion of PE 2

Total Credits: 5 per semester

PE 3 – WEIGHTLIFTING

Description: The curriculum is an enhanced and enriched version of physical education with an increased emphasis on weight room, fitness and conditioning. California standards and fitness will be incorporated by athletics.

Prerequisites: Completion of PE 2

Total Credits: 5 per semester

SCIENCE

ANATOMY & PHYSIOLOGY**

Description: Anatomy and Physiology is an advanced science course that is designed for the more motivated student of biology. The student should be capable of performing in an independent as well as small-group laboratory setting. The fields of inquiry will be: the scientific method, growth, development, genetics, and the anatomy and physiology of the nine systems of the human body.

Prerequisites: Grades 11 – 12 Biology with a "C" average or instructor's approval

Total Credits: 5 per semester

BIOLOGY**

Description: Biology is a college preparatory course that is recognized as a lab science. It surveys the major academic areas of the Biological Sciences utilizing lecture, demonstration, textbook reading, and extensive laboratory activities and experiments. Students are made aware of current research methods and career opportunities, and use of technology for research and laboratory work is encouraged. Evaluation of students includes tests, oral and written presentations, laboratory data collection, analysis and reports, short and long term projects, and student portfolio entries.

Prerequisite: None

Total Credits: 5 per semester

BIOLOGY HONORS**

Description: Biology Honors is a college preparatory course that is recognized as a laboratory science (area d) of the UC ag requirements. This course requires students to be self-motivated critical thinkers. Assignments such as projects, exams, and articles require a higher reading and writing level than regular biology. This course covers topics more in depth than regular biology and requires more extensive laboratory work, research, analysis, and reports. It surveys the major

academic areas of the biological sciences utilizing lectures, demonstrations, textbooks, current event articles, teacher prepared materials, projects, and extensive laboratory experiments. In accordance with the California State Standards, this course covers the following topics: Cell Biology, Genetics, Evolution, Ecology, and Human Physiology. Every attempt is made to make students aware of the current research methods and career opportunities through the use of technology and research. Evaluation of students includes tests, district benchmark exams, short and long term projects, collection and analysis of data during labs, homework, class work, and an organized notebook Prerequisite: Successful completion of Algebra 1 or higher is recommended

Co-requisite: English 9 Honors (only open to 9th grade students)

Total Credits: 5 per semester

BIOLOGY AP**

Description: Advanced Placement Biology is an enrichment, laboratory science course that emphasizes the major subdivisions of the Biological Sciences. It is intended for the serious science student that also wishes to obtain college credit through examination. Extensive laboratory supplements, lectures, demonstrations, and group activities. Every attempt is made to pattern instruction after a first year college biology course and to instruct students in the study skills and techniques that will make them successful after high school.

Prerequisites: Grades 11-12 (10th grade allowed with high recommendation from science teacher), grade of "C" or better in Biology.

Recommended: Chemistry with a grade of "C" or better.

Total Credits: 5 per semester.

KINESIOLOGY**

Description: Kinesiology is the study of human movement. The academic foundation for the study of human movement is covered by courses that explore movement as it affects and is affected by physiological, psychological, developmental, and mechanical parameters. Kinesiology is an intense course of language skills related to the health career fields that includes through background knowledge of the skeletal and muscular systems.

Prerequisites: Grades 10-12, Biology with a "C" or better

Total Credits: 5 per semester

CHEMISTRY**

Description: Chemistry is a college preparatory course designed as a survey of atomic and molecular structure, chemical and physical properties of matter, reactions, organic and nuclear chemistry. Mathematics is used to solve problems related to the chemical concepts studied. Laboratory experimentation is extensive and comprehensive and involves the application of chemical concepts and qualitative and quantitative laboratory methods.

Prerequisites: Grades 10 – 12, Algebra 1

Total Credits: 5 per semester

CHEMISTRY AP**

Description: The Advanced Placement Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. 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.

Prerequisites: Grades 11-12, grade of "C" or better in Chemistry

Total Credits: 5 per semester.

CHEMISTRY HONORS**

Description: Chemistry is a college preparatory course that is recognized as a laboratory science (area d) of the UC a-g requirements. This course requires students to be self-motivated critical thinkers. The study guides, projects, exams, and articles require a higher reading and writing level than regular biology. This course covers topics more in depth than regular chemistry and requires more extensive laboratory work, research, analysis, and reports. This course is designed to provide an in-depth survey of atomic and molecular structure, chemical and physical properties of matter, reactions, organic and nuclear chemistry. Mathematics is used to solve problems related to the chemical concepts studied. Laboratory experimentation is extensive and comprehensive and involves the application of chemical concepts and qualitative and quantitative laboratory methods.

Prerequisites: Grades 10 – 12, Successful completion of geometry (or higher) and biology

Co-requisites: Enrolled in Algebra 2 or higher

Total Credits: 5 per semester

PHYSICS 1 AP**

Description: 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; electric charge and electric force; DC circuits; and mechanical waves and sound.

Prerequisites: Grades 11-12, Students should have completed Geometry and be concurrently taking Algebra II or an equivalent course

Total Credits: 5 per semester

ENVIRONMENTAL SCIENCE AP**

Description: This course is designed to be the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental Science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography

Prerequisites: Grades 11-12

Total Credits: 5 per semester

SPORTS MEDICINE

Sports Medicine places an emphasis on the prevention of athletic injuries, principles of first aid, CPR, exercise science, vital signs, and anatomy. Classroom time is spent learning various sports medicine related skills such as taping as well as gaining knowledge about the human body, pathology, and nutrition. Students apply their skills and knowledge by assisting in the prevention of sports injuries and rendering first aid when needed during high school sporting events. Students interested in physical therapy, athletic trainer, nursing, exercise physiologist, orthopedist, radiology, dietician, and medicine will benefit from this course.

Prerequisites: Grades 11-12, pass Biology with a C or better, signature from Mr. Wilson

Total Credits: 5 credits per semester

ADVANCED SPORTS MEDICINE**

Advanced Sports Medicine allows students to explore how the human body moves. Physics principles, along with the integration of biological and chemical principles will allow for greater understanding of human biomechanics. Bio-mechanic principles of injury and the physiological responses of the body to these injuries will also be discussed. This course focuses on lab methods, critical thinking, and communication skills needed to advance as a science major in a university. Students will be introduced to lab exercises dealing with Physics and Structural Kinesiology. Students interested in physical therapy, athletic trainer, nursing, exercise physiologist, orthopedist, radiology, dietician, and medicine will benefit from this course.

Prerequisites: Grades 11-12, pass Biology with a C or better, signature from Mr. Wilson

Total Credits: 5 credits per semester

SPORTS MEDICINE II -- PRACTICUM

This course is a one-year, lecture-laboratory science elective designed to provide a well-rounded and challenging academic and fieldwork experience for students interested in medicine, physical therapy, exercise science, athletic training, sports medicine, or any other related medical or paramedical field. Throughout the year students participate in a detailed examination of the various kinesiological, anatomical, physiological, and biomechanical factors that influence the "human machine". Specifically, students will apply knowledge gained and practiced in class to student athletes and, in some cases, to clients in local gyms and sports medicine clinics. Following are the units of study thoroughly covered in the practicum: (1) Historical and organizational perspectives of sports medicine. 2) Detailed anatomical and biomechanical study of each major body region. 3) Physiological response of tissues to various types of stress. 4) Specific medical conditions and injuries in sport. 5) Scientific principles and techniques of injury prevention, evaluation, treatment, and rehabilitation. 6) Exercise physiology and human performance.

Prerequisites: Grades 12, pass Biology with a C or better, Completion of Advanced Sports Medicine, completion of or currently enrolled in Anatomy/Physiology or Biology AP, signature from Mr. Wilson

Total Credits: 5 credits per semester

SOCIAL SCIENCE

CIVICS**

Description: Students will apply knowledge learned in previous years to pursue a deeper understanding of the institutions of American government. They will compare systems of government in the world today and analyze the life and changing interpretations of the Constitution, the Bill of Rights, and the current state of 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 historical documents such as The Federalist Papers. The mission of this course for the first half will be a series of case studies illuminating the nature of American political institutions and the role of the citizen, which will include the Constitution, the Bill of Rights, the court system, and federalism.

Prerequisites: None

Total Credits: 5 per semester

ECONOMICS**

Description: The major emphasis of this course is upon studying the basic principles of economics to help pupils understand the "demand" economic system within which they live, and to learn to analyze, objectively, the wide range of problems that confront their society. The course briefly contrasts other systems, such as "command" economics, with the United States economic system. The course also identifies the growing problem caused by unlimited demands on limited natural resources and by socioeconomic desires for a balanced ecology on the one hand and an increased standard of living on the other. Appreciation is developed for the fact that sound economic growth results only from increased productivity, and for the necessary role of investment capital as the seed for future growth in either a "command" or a "demand" market system. The course enables pupils to gain better understanding of how and why the United States economic system works, how they can help it to serve them better. The methodology of the professional economist and economics is studied in its historical context. The course also includes extensive reading, and written and oral composition.

Prerequisites: None

Total Credits: 5 per semester

GOVERNMENT & POLITICS US AP**

Course Description: An effective Advanced Placement course in American Government and Politics is designed to give students a critical perspective on government and politics in the United States. This course involves both the study of general concepts used to interpret American politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that make up the American political reality.

Prerequisites: Grade of 'C' or better in US History AP

Total Credits: 5 per semester

U.S. HISTORY**

Description: In this course, students examine major turning points in American history in the 20th 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 social and cultural effects. During the year certain themes are emphasized: the expanding role of federal government and federal courts; the continuing tension between the individual and the state and between minority rights and majority power; the movement toward equal rights for racial minorities and women; and the role of the United States as a major power. Students understand that our rights under the United States Constitution comprise a precious inheritance that depends on an educated citizenry for their preservation and protection.

Prerequisites: None

Total Credits: 5 per semester

U.S. HISTORY AP**

Description: This is an in-depth survey course in American History, covering this country from the pre-colonization period to the 1980's. The course will help the students understand the many factors that affected our country's growth, such as our territorial expansion, the development of our government, our relations with other countries, our economic development, our social problems, and how individual men and women played important roles in establishing the United States of today. Through primary source readings, lectures, research papers, and written composition, the student will be tying the past to the present, and developing an appreciation of the people that built, and are still building America today.

Prerequisites: None

Total Credits: 5 per semester

WORLD HISTORY**

Description: In this course, students examine major turning points in the shaping of the modern world, from the late 18th century to the present, including the cause and course of the two world wars. They trace the rise of democratic ideals and develop an understanding of the historical roots of current world issues, especially as they pertain to international relations. Students extrapolate from American experience that democratic ideals are often achieved at a high price, remain vulnerable and are not practiced everywhere in the world. 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.

Prerequisites: None

Total Credits: 5 per semester

WORLD HISTORY AP**

Description: This course explores the evolution of global process and contacts in interaction with different types of human societies. The course highlights the changes in international context, their causes and consequences prior to 1000 AD. An analysis of those events and significant individuals will be done on a continuous basis.

Prerequisites: None

Total Credits: 5 per semester

HUMAN GEOGRAPHY AP**

Description: This course is equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. The curriculum reflects the goals of the National Geography Standards (2012).

Prerequisites: Grades 10-12

Total Credits: 5 per semester

EUROPEAN HISTORY AP**

Description: AP European History is designed to be the equivalent of a two-semester introductory college or university European history course. In AP European History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course also provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; individual and society; and national and European identity.

Prerequisites: Grades 9-12

Total Credits: 5 per semester

VISUAL AND PERFORMING ARTS

INSTRUMENTAL MUSIC

CONCERT BAND**

Description: Concert Band is an introductory course for the instrumental music program. The major focus of the program is development of the basic concepts of playing a wind instrument, (flute, clarinet, saxophone, trumpet, trombone, etc.); understanding melody, harmony, rhythm, phrasing, and intonation; and blending individual abilities into a group performance. Assessment will include teacher and peer evaluation as well as performances both during the school day and outside of school. Public performances are required.

Prerequisites: Concurrent enrollment in PE Drill/Marching Band.

Total Credits: 5 per semester

SYMPHONIC BAND**

Description: Symphonic Band is an intermediate course for the instrumental music program. The major focus of the program is further development of the concepts of playing a wind instrument (flute clarinet, saxophone, trumpet, Trombone, etc.) The student will understand melody, harmony, rhythm, phrasing, and intonation; and blending individual abilities into a group performance. Assessment will include teacher and peer evaluation as well as performances both during the school day and outside of school. Public performances are required.

Prerequisites: Pass Concert Band with a "B" or better or have teacher approval. Concurrent enrollment in PE, Drill/Marching Band.

Total Credits: 5 per semester

WIND ENSEMBLE**

Description: Wind Ensemble is an advanced course for the instrumental music program. The major focus of the program is the further development of the concepts of playing a musical instrument; understanding melody, harmony, rhythm, phrasing and intonation and blending individual abilities into a group performance. Assessment will include teacher and peer evaluation as well as performances both during the school day and outside of school. Public performances are required.

Prerequisites: Pass Symphonic Band with a "B" or better or have teacher approval. Concurrent enrollment in PE Drill/Marching Band.

Total Credits: 5 per semester

MARCHING BAND

Description: A course designed for the preparation and performance of the marching band for field shows and parades. Assessment will include teacher and peer evaluation as well as performances both during the school day and outside of school. Public performances are required of all members.

Prerequisites: Concurrent enrollment in Concert Band, Symphonic Band, Wind Ensemble, Percussion, or Show Corps

Total Credits: 5 per semester.

PE DRILL

Description: A beginning course designed for the preparation and performance of the marching band for field shows and parades with an emphasis on fitness and endurance. Assessment will include teacher and peer evaluation as well as performances both during the school day and outside of school. Public performances are required of all members.

Prerequisites: Concurrent enrollment in Concert Band, Symphonic Band, Wind Ensemble, Percussion, or Show Corps.

Total Credits: 5 per semester.

SHOW CORPS

Description: A specialized course designed to teach the skills required to perform in a band auxiliary (color guard) unit. Assessment will include teacher and peer evaluation as well as performances both during the school day and outside of school. Participation in public performance is required.

Prerequisites: Permission of instructor and concurrent enrollment in P.E. Drill or Marching Band.

Total Credits: 5 per semester.

STRING ORCHESTRA**

Description: An introductory course designed to develop skills on string instruments (violin, viola, cello, string bass), from beginning to intermediate levels, in an orchestral setting. The course of study will include ear training, sight-reading, chamber music, jazz/fiddling technique, and standard orchestra literature. Public performances are required and students may take this class for a total of 20 credits (two years).

Prerequisites: None

Total Credits: 5 per semester

PERCUSSION

Description: In this course, students will learn the fundamentals of playing percussion instruments, such as snare drum, bass drum, mallet instruments, timpani, cymbals, drum set, and much more. Assessment will include teacher and peer evaluation as well as performances both during the school day and outside of school. Students may take this class for a total of 20 credits (two years).

Prerequisites: Concurrent enrollment in PE Drill/Marching Band.

Total Credits: 5 per semester

ADVANCED PERCUSSION

Description: A course designed for the third and fourth year percussionist. Class topics will be centered on maintaining and building advanced skills in drumming and mallet playing. Music preparation and performance will be the focus of this large ensemble. Assessment will include teacher and peer evaluation as well as performances both during the school day and outside of school. Students may take this class for a total of 20 credits (two years).

Prerequisites: Pass Percussion with a grade of "B" or better or teacher approval, Concurrent enrollment in PE Drill/Marching Band.

Total Credits: 5 per semester

VOCAL MUSIC

MIXED CHORUS**

Description: A beginning class in singing. Unison and part songs will be studied. Students will be taught vocal techniques and fundamentals. Students are required to participate in public performances.

Prerequisites: None

Total Credits: 5 per semester

CONCERT CHOIR**

Description: The course of study includes voice development; ear training and development of sight-singing abilities are emphasized. Three part intermediate treble voices are studied. Concert attire required and members are required to participate in all performances.

Prerequisites: Audition, see Mr. McCullough Rm. 801

Total Credits: 5 per semester.

A'CAPPELLA CHOIR**

Description: This course of study includes voice development as well as ear training and development of sight-singing abilities. Standard advanced choral literature will be studied with emphasis on AC singing. Members are required to participate in all performances.

Prerequisites: Grades 10 – 12, audition with Mr. McCullough, Room 801

Total Credits: 5 per semester

CHORAL ENSEMBLE**

Description: The course of study includes literature covering various styles and periods not covered in depth in other CHORAL ENSEMBLES. The styles include Renaissance madrigals and various popular styles (jazz, pop-rocks, swing, etc.). Members are required to participate in all performances.

Prerequisites: Grades 10 – 12, concurrent enrollment in A'Cappella Choir, audition with Mr. McCullough, Room 801

Total Credits: 5 per semester

CHAMBER SINGERS**

Description: Chamber Singers, Vocal Music V, is the most select mixed choral ensemble in the continuum of choral music courses. This course of study includes the most in depth study choral music literature from medieval music through contemporary music including art music, popular music, and music of the theatre. Members of the Chamber Singers are required to participate in all rehearsals and performances. Rehearsals are not limited to classroom instruction hours, and may include after school, and weekend rehearsals and performances. The select nature of the Chamber Singers requires the commitment to be individually accountable to represent the highest level of musical performance, and character through national and international festivals.

Prerequisites: Concurrent enrollment in A'Cappella Choir, audition with Mr. McCullough, Room 801

Total Credits: 5 per semester

MUSIC THEORY AP**

Description: The Music Theory A. P. course is designed to prepare college-bound music students to pass the Music Theory A. P. Examination taken during the spring of each school year. The ultimate goal of the course is to develop student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. Strong emphasis is given to listening skills, particularly those involving recognition and comprehension of melodic and rhythmic patterns, harmonic functions, small forms, and compositional techniques. The achievement of this goal may be best promoted by integrated approaches to the student's development of: aural skills through listening exercises, sight-singing skills through performance exercises, written skills through written exercises, compositional skills through creative exercises, and analytical skills through analytical exercises.

Prerequisite: Musical performance course and/or instructors permission.

Total Credits: 5 per semester

VISUAL ART

ART I**

Description: This course is designed to introduce students to basic art skills, techniques and media. Areas of study will include drawing, painting, printmaking, and various three dimensional assignments. Emphasis will be on exploration, experimentation and creativity using a variety of mediums.

Prerequisites: None

Total Credits: 5 per semester

AP STUDIO ART 2D

Description: AP Studio Art has been developed to accommodate serious art students who have expressed an interest in completing the AP Drawing Portfolio or the AP 2-D Design Portfolio. Through studio practice, application of design concepts and informed decision making, these students will assemble a body of artwork that demonstrates a high level of quality and growth over time of content, technique, and process. Students will investigate all three parts of their portfolios as required by the AP College Board: Quality, Concentration, and Breadth. All work will be documented throughout the year by digital photos and by PowerPoint.

The Quality section of the portfolio is 5 pieces of work that are chosen from breadth and concentration and sent to the AP Board for judging. In the Drawing and 2-D Design Portfolios, this quality work will be physically sent to the College Board in portfolios provided by the College Board.

The Concentration section of the portfolio will consist of 12 high quality artworks that clearly demonstrate that the student has developed a body of work by investigation of a theme or idea. The concentration section must show growth and discovery. In all three portfolios, digital photos will be submitted to document this process of discovery.

The Breadth section of the portfolios will consist of 12 artworks that show a variety of mediums, techniques, approaches to drawing and 2-D design. The students should clearly demonstrate their knowledge of the elements and principles of art in these works. Units of study will be presented to satisfy this requirement for each portfolio. 12 digital photos will be submitted for this section.

Prerequisite: ART I and/or teacher recommendation

Total Credits: 5 per semester

AP STUDIO ART 3D

Description: This course is designed for students who are seriously interested in the practical experience of art. Students submit portfolios for evaluation at the end of the school year. The three portfolios correspond to the most common college foundation courses. Students create a portfolio of work to demonstrate the artistic skills and ideas they have developed, refined, and applied over the course of the year to produce 3D visual compositions.

Prerequisite: Art 1 and Ceramics 1

Total Credits: 5 per semester

CERAMICS 1**

Description: This class offers students the opportunity to explore three-dimensional art using clay. Students will learn the basic hand building techniques and wheel throwing methods. They will create functional wares, abstract pieces and sculptural works. The history of ceramics and sculpture will be emphasized. Students will also learn different firing methods and glazing techniques.

Prerequisite: Successful completion of Art 1

Total Credits: 5 per semester

CERAMICS 2**

Description: In this class students will learn more advanced ceramics techniques to further build their portfolios. Students will also challenge their abilities by building a large scale sculpture. Students will delve deeper into ceramics history as they create projects in the style and themes of ancient works. In this course, students will also have an opportunity to develop their own personal style. In addition, the students will have a chance to extend their learning to the community as they participate in various art shows.

Prerequisite: Ceramics 1

Total Credits: 5 per semester

CERAMICS 3

Description: This class will allow students to further push their skills as they focus more on self-development and personal artistic interests. Each student will develop further his or her artistic style through self-directed projects and series projects. Students will also have the opportunity to participate in community art events.

Prerequisite: Ceramics 2

Total Credits: 5 per semester

DRAWING I**

Description: This course is designed to offer a variety of drawing techniques using pencil, charcoal, pastels, color pencils, ink, mixed media and scratchboard. Students are exposed to artwork from throughout history as a basis for developing their own individual style. Students will create a portfolio and will be encouraged to enter art contests and scholarship competitions.

Prerequisites: Grades 10 – 12, grade C or better in Art I or teacher permission

Total Credits: 5 per semester

DRAWING 2**

Description: This class, a follow-up to Drawing I, offers a variety of projects and media that facilitate the development of individual style. The Drawing II student will be coached in the skills of working from the imagination and using self-expression. Students will learn to mat their own work, create a portfolio and experience the joy of displaying their art in public. Careers and post-secondary education will be emphasized.

Prerequisites: Grades 10 – 12, grade C or better in Drawing I or t teacher permission

Total Credits: 5 per semester.

DRAWING 3**

Description: This class, a follow-up to Drawing 2, offers a variety of projects and media that facilitate the development of individual style. The Drawing 3 student will be coached in the skills of working from the imagination and using self-expression. Students will learn to mat their own work, create a portfolio and experience the joy of displaying their art in public. Careers and post-secondary education will be emphasized.

Prerequisites: Grades 10 – 12, grade C or better in Drawing 2 or t teacher permission

Total Credits: 5 per semester.

PAINTING 1**

Description: This course will introduce the basics of painting. Projects will guide students through the basics of color mixing, composition, and visual problem solving. Painting techniques in watercolor, acrylic and oil based mediums will be explored. The joy of self-expression through art and its influence on culture will be emphasized. This will be achieved by relating art history, criticism and aesthetics to each studio project. The many fields, which utilize painting skills, will be reviewed and guest speakers will be invited to speak on their fine art or commercial art careers. Students will study major movements in painting, utilize this knowledge in their own work and understand the difference between literal and abstract art artworks. Prerequisites: Grade 'C' or better in Art I

Total Credits: 5 per semester

PAINTING 2**

Description: In this class students will develop their skill in painting and broaden their understanding of painting in its historical and modern context. The major emphasis of this course will be to promote self-expression and the development of identity through art. Individual portfolios, presentation of one's artwork and ability to receive and accept critical input will play an important role in student development. Art shows and group projects, such as murals and installations will bring the class into the school and local community. This visibility and interaction will be emphasized as one of the great joys and services that the arts provide. The vast array of design and artistic professions that stem from painting and art skills will be continually referenced. Exposure to art will be facilitated locally and internationally with trips to museums and local galleries /community shows. Professionals in commercial art fields and fine artists will be invited to share their work and speak to the class. Prerequisites: Painting I

Total Credits: 5 per semester

PAINTING 3**

Description: In this course students will further develop their painting skills in various mediums. Painting techniques in oil, watercolor, gouache, acrylic and other mediums will be developed and enhanced. In addition, students will consider the works on ancient cave painters through present day contemporary art when creating their work. Also, Painting III will offer students a way to interact with the rest of the school and the community through various mural projects and community outreach programs. On an individual level, students will continue developing and creating works to incorporate into their portfolios. Members of the art world will be invited to speak on the various careers in art and their experiences.

Prerequisites: Painting 2 and permission of instructor

Total Credits: 5 per semester

ART HISTORY AP**

Description: Students will learn art history; architecture, sculpture, painting, and other art forms within diverse historical, geographical, and cultural contexts. It also provides an opportunity for students to strengthen their knowledge of and the impact art has on the great cultures of the world. Students examine major forms of artistic expression from the past and the present from a variety of cultures as well as the geography, religious, political, and historical aspects related to each area of study. Students learn to look at works of art critically, with intelligence and sensitivity, and to analyze what they see in order to better understand the meaning of the work. Students will complete various projects working with actual art materials in order to better understand the practice of creating art.

Prerequisites: None

Total Credits: 5 per semester

VISUAL IMAGERY 1**

Description: Provides instruction in basic and advanced principles and elements of photography. Students will learn traditional photography techniques, darkroom techniques, and the use of the computer in photography. Students will compose and take pictures using various lenses, analyze how the camera and lens work, and professional image preparation to include spotting, toning, bleaching, and coloring.

Prerequisite: Grades 11 – 12, \$20.00 lab fee per semester

Total Credits: 5 per semester

VISUAL IMAGERY ADVANCED

Description: Description not available

Prerequisite: Successful Completion of Visual Imagery 1

Total Credits: 5 per semester

OTHER ELECTIVES

3D MEDIA DESIGN 1**

Description: No course description available

Prerequisites: None

Total Credits: 5 per semester

AP COMPUTER SCIENCE

Description: The AP Computer Science A course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data, approaches to processing data, analysis of potential solutions, and the ethical and social implications of computing. This course emphasizes both object-oriented programming in Java, and imperative problem solving.

Prerequisites: Passed or concurrent Algebra 2

Credits: 5 per semester

COMPUTER SCIENCE PRINCIPLES AP**

Description: This 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. 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 represent points in a plane.

Prerequisites: Grades 10-12

Total Credits: 5 per semester

LAB ASSISTANT

Description: Tutor students in Math & Science classes

Prerequisites: Grades 11-12

Credits: 5 per semester

STUDENT AIDE

Description: Students may serve as assistants in various offices. Duties may vary with the office involved. No student may earn more than 30 units of credit toward graduation requirements.

Prerequisites: Grades 11-12, good attendance and discipline record, Teacher's signature

Total Credits: 5 per semester

STUDENT GOVERNMENT/ASB

Description: Students learn to make and implement a budget involving ASB Funds, correct use of Robert's Rules of Order, to effectively interact with other students and teachers and ASB advisor. Students participate in as many student activities as time permits, encourage school spirit, and promote student involvement by setting effective student leadership goals.

Prerequisites: Good attendance, GPA 2.0 or above and no U's in citizenship

Total Credits: 5 per semester

VIDEO GAME DESIGN ADVANCED

Description: 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.

Prerequisites: None

Total Credits: 10 per semester

WORK EXPERIENCE

Description: Work Experience Education is a comprehensive work-related course that is taught in the Work Experience Education Program. Work Experience Education includes both classroom and on-the-job training component. The required classroom portion incorporates general employability skills, career awareness, health and safety in the workplace, knowledge of labor laws, financial planning, understanding taxes, job search techniques and decision-making skills. Students are required to have a job at the time of enrollment.

Prerequisites: Grades 11 – 12, 16 years of age or older, Able to work 40 hours per week, teacher signature

Total Credits: 10 credits each semester with a maximum of 4 elective credits earned toward graduation.

SPECIAL EDUCATION

Placement - Students receiving special education instruction are identified through testing and observation. Special Education placement is through the IEP process and includes parents, instructors, counselors, school nurse, and other specialists. The IEP process serving special needs students follows prescribed law. Special education instruction does not supplant the core curriculum; it enables students to experience success commensurate with their highest potential.

Testing - Tests presently utilized for placement are the W.R.A.T., Form II, The K.T.E.A. (Kaufman Test of Educational Achievement), and Durrell Test of Oral Reading. All special education students are tested by the school psychologist every three years.

RSP (Resource Specialist Program)

Students are enrolled in Strategies for Success 9, 10, 11, or 12 and other courses as prescribed in their IEP.

ESS (Essential)

Students receive special education support for more than 50% of the school day and may take many of their core classes within the special day program. The student is included in general education classes the remainder of the school day as appropriate.

Prerequisite: Eligibility determined by battery of tests

Strategies for Success 9

Description: No description available

Prerequisites: IEP

Total Credits: 5 per semester

Strategies for Success 10

Description: No description available

Prerequisites: IEP

Total Credits: 5 per semester

Strategies for Success 11

Description: No description available

Prerequisites: IEP

Total Credits: 5 per semester

Strategies for Success 12

Description: This course is designed for 12 grade high school students in a Resource Specialist Program (or 504 Plan). Students engage in activities that support the exploration of concepts and themes found in Civics/Economics and English literature courses that focus on conventions of language. This course will also support the requirements needed for students to complete all senior requirements embedded in their Civics/Economics and English 12 courses. Students work on editing skills in order to reinforce the written and oral conventions of Standard English. Skills needed to be successful in Standard English are best established by direct instruction. Various components of direct instruction include continuous communication of expectations including bench mark criteria, instructional objective and targeted instruction of a behavior or strategy, modeling, guided practice, checking for understanding, independent practice and feedback. Instruction should include application of a variety of learning strategies (including AVID strategies) to activities/assignments. Students are supported in general education course work through collaboration with general and special education teachers.

Prerequisites: IEP or 504 Plans

Total Credits: 5 per semester