

Course Descriptions

West Campus High School

2023-2024 School Year

10th Grade:

Chemistry in the Earth System

Chemistry in the Earth system is a (college preparatory) two-semester course designed to meet the needs of students pursuing a major in a University or College. It integrates the concepts of Chemistry and Earth science linking cross-cutting concepts to make them more relevant to the students.

The course will meet the A-G requirements for the University of California and the California State University systems. To meet the minimum qualifications for these colleges, a grade of C or better must be achieved. The course is strictly aligned with the Next Generation Science Standards (NGSS) that have been adopted by our state.

The course encompasses the following major areas in a storyline format: Atoms, Elements, and Molecules, Chemical Reactions, and Combustion (1P), Heat and Energy in the Earth System, the Dynamics of Chemical Reactions and Ocean Acidification, and the Chemistry of Climate Change, and (2P).

AP World History: Advanced Placement World History focuses on developing students' understanding of world history from 1200 C.E. to the present. The course also develops students' historical thinking skills of chronological reasoning, argumentation and causation as well as advanced writing skills, therefore, strong reading and writing skills are necessary for success. AP World History is designed to be the equivalent of a one-semester introductory college or university world history course. Satisfactory completion of the course will prepare students to take the College Board Advanced Placement Exam in World History.

English 10 HP (honors): This course will explore the universal themes of the human condition, the power of words, and the search for utopia through a variety of texts (literature, expository, argumentative, and visual). These will serve as a tool to develop close reading and critical thinking skills. A large emphasis will be on literary analysis but will also include an introduction to the basic elements of rhetorical analysis which will provide a foundational introduction to AP Language and Composition (11th grade). In

addition, we will continue refining our use and analysis of the writing process for the purpose of improving our writing and evaluating other writers' choices. We will also continue building research skills and writing that will culminate in an in-depth career I-search.

10th, 11th, & 12th Grade:

Engineering Year 1: Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software, and use an engineering notebook to document their work. Students gain a deeper understanding of how to design as individuals and in a group. Projects range from designing toys to fashion objects to modeling cars.

Engineering Year 2: Principles of Engineering (must have passed IED course) Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. Students will be involved in robotics competitions.

Engineering Year 3: Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects.

Yearbook: The goal of this course is to introduce students to the elements of publishing and selling a published yearbook. Students will ultimately be producing the school's yearbook, along with focusing on topics such as copy-writing, photography, design, editing, marketing, and accounting. Being a member of the yearbook staff is an awesome responsibility, but by the end of the year, students will have produced a book that is valued by students, faculty, and community.

Band: Band is a repeatable one year course that satisfies the UC A-G requirements for Fine Arts. Band provides beginning to advanced instruction of traditional band instruments in the performance styles of concert, pep, and marching band. Students with orchestra experience are also allowed to join the class. The course is performance orientated and requires time

outside of the regular class day. Students will be involved in studying a variety of music literature and progress through easy to challenging pieces that encompass a variety of historical periods, cultures, and styles. The course standards of artistic perception, creative expression, historical and cultural context, aesthetic valuing, and connection to other fields of study will be addressed throughout the course. This course is aligned with the California Fine Arts standards and performance based standards developed by the National Association for Music Education (NAfME).

11th Grade:

AP US History: Advanced Placement U.S. History (APUSH) is a college level course taught in the 11th grade. By taking this course and earning a score of three or better on the APUSH exam in May, a college freshman may skip the first year of U.S. history at the college level. The course covers the time frame of 1491 to the present. This is a rigorous course whereby students should expect to utilize high level skills of critical analysis, and synthesis. Strong reading and writing skills are necessary.

AP English Language and Composition: This course focuses on rhetorical analysis (rather than Literary Analysis), critical thinking, the craft of writing, and the mechanics of writing. As such, there is much emphasis on analyzing the choices professional authors make in relation to their audience and purpose, as well as developing the skills and strategies of the students' writing. This course covers most of the modes of development: Definition, Classification, Comparison and Contrast, Cause and Effect, Persuasion, and Argument.

11th & 12th Grade:

AP Biology: The advanced placement program's mission is to provide an opportunity for high school students to pursue and receive credit for college-level course work. The class will have a rigorous schedule that will allow motivated and able students to receive instruction in an advanced form of biology. The curriculum is different from the introductory biology taught in the lower division at West Campus. Due to the rigor of the course and the length of the lab activities, additional class time may be scheduled before or after regular school hours to ensure student success and completion of the activities.

The course emphasizes the major themes and concepts of biological science. The course will utilize laboratory activities to allow students to experience the hands-on, discovery aspect of science. This allows the students to do both quantitative and qualitative science ensuring that they will get the "big picture" and major insights into the science of life. It also makes the content of a biology course less overwhelming and more meaningful by weaving small pieces together into a relevant, understandable whole.

Prerequisites for this course is Biology and Chemistry 1P & 2P with a grade of C or better completed prior to taking this course.

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

AP Physics 1: AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. This course is a full-year course that is equivalent of a first-semester introductory college course in algebra-based physics. A main goal of the course is to learn physics well enough to pass the AP Physics 1 exam with a score of 3 or higher. There are no prerequisite courses however students should demonstrate strong performance in Math 1 and 2.

AP Physics 2: AP Physics 2 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electric circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. This course is a full-year course that is equivalent to a

second-semester introductory college course in physics. A main goal of the course is to learn physics well enough to pass the AP Physics 2 exam with a score of 3 or higher. Prerequisite course is AP Physics 1. Students should have taken or be concurrently taking precalculus or equivalent.

Human Anatomy and Physiology: Human Anatomy and Physiology is designed to introduce students to the study of the nature of the human body by going more in depth with the structures and function of the human body beyond those areas already taught in biology. Students in this course will focus on the major body systems, nutrition, and cancer. Often an inquiry based approach will be taken to learning various systems of the body, to support the Next Generation Science Standards. The Common Core Literacy Standards in Science are also emphasized.

Physics: General Physics (college preparatory) is a two-semester course designed to meet the needs of students pursuing a major in a University or college. This course will meet the A-G requirements for the University of California and the California State University systems. In order to meet the minimum qualifications for these colleges, a grade of C or better must be achieved. With California schools transitioning to the Next Generation Science Standards (NGSS), this course will incorporate the concepts and practices outlined in those standards. Students will be exploring concepts in depth using a Model Based Reasoning (MBR) approach in order to practice science realistically. Coursework consists of laboratory investigations, activities, class discussions, reading assignments, problem-solving, and individual/group projects. Students will be exploring the following areas: Introduction to Motion, Forces and Motion, Universal Gravitation, Momentum and Collisions, Energy Systems, Electrical Interactions, and Waves.

AP Spanish: We will emphasize communication in interpersonal, interpretive, and presentational modes using real-life situations to expand students' ability to express themselves in Spanish. We will study authentic resources from various parts of the Spanish speaking world across six themes and engage in the exploration of culture, both past and present. We will make comparisons between cultural products, practices, and perspectives. The goal of the class is to improve students' Spanish expression and comprehension and to prepare them for the AP exam. This

class is taught in Spanish and students will be expected to use only Spanish in the class. The prerequisite for this course is C or better in Spanish 3.

AP French: The AP French Language and Culture course takes a holistic approach to language proficiency and Francophone cultures. This course strives to promote both fluency and accuracy in language use and does not overemphasize grammatical accuracy at the expense of communication. In order to best facilitate the study of language and culture, this course is taught in the target language. The course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of books, music, laws, conventions, patterns of social interactions within a culture, values, attitudes, and assumptions.

Peer Tutoring: Students who take Peer Tutoring will be placed into a class at Mark Twain Elementary to assist that teacher with their class.

AP Calculus AB: Students will learn all topics listed in the AP Calculus AB Course Description including limits, differentiation, integration and their applications with the usage of graphing calculators. The two objectives of the course are that the students will be fully equipped to pass the AP Calculus AB Exam and be ready to challenge higher math/science courses at the college level.

AP Calculus BC: Students will learn all topics listed in the AP Calculus BC Course Description including limits, differentiation, integration and their applications with the usage of graphing calculators. The two objectives of the course are that the students will be fully equipped to pass the AP Calculus BC Exam and be ready to challenge higher math/science courses at the college level.

AP Statistics: This course is equivalent to a one-semester, introductory, non-calculus based college course in statistics. The topics for A.P. Statistics are divided into four major themes: descriptive statistics, planning a study, probability, and inferential statistics. The first semester will cover chapters 1-7. The second semester will cover chapters 8-13. The AP Statistics exam will be given in May (afternoon). Those who pass the exam (3 or better) may receive credit for a one-semester introductory college statistics course.

Music Appreciation: Music Appreciation is a one-year course in music listening, music analysis, and music history that satisfies the UC A-G requirements for Fine Arts. This course requires no prior knowledge about music, but students with prior knowledge will also benefit from the course. Students will also explore both traditional and modern music examples from around the world and how different styles influence popular music we listen to today. By the end of the course, students will be able to perform, compare and contrast, and compose different styles of music. This course requires participation in instrumental instruction and digital audio workstation collaboration. This course also requires performance attendance outside of the school day.

AP Music Theory: The AP Music Theory is a one year course that satisfies the UC A-G requirements for Fine Arts. The coursework corresponds to one-to-two semesters of typical, introductory college music theory coursework that covers topics such as musicianship, theory, and musical materials and procedures. Musicianship skills, including dictation and listening skills, sight singing, and harmony, are an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of tonal music that are heard or presented in a score. Development of aural (listening) skills is a primary objective. Performance is also part of the curriculum through the practice of sight-singing. Students learn basic concepts and terminology by listening to and performing a wide variety of music. Notational skills, speed, and fluency with basic materials are emphasized. Recommended prerequisites include 1-2 years of music theory and/or music performance experience.

Modern Band: Modern Band is a repeatable one year course that satisfies the UC A-G requirements for Fine Arts. The course provides beginning to advanced instruction of skills necessary to play guitar, bass, keyboard, drums, and vocals. This course engages in a variety of contemporary musical styles including, but not limited to, R&B, Soul, Rock, Pop, and Hip Hop. Students will create their own bands, cover existing songs, compose original songs/lyrics, and develop rehearsal/performance skills in preparation for performances throughout the year. This course is open to all students from no previous musical experience to advanced. This course requires participation in instrumental instruction and digital audio workstation

collaboration. This course also requires performance attendance outside of the school day.

Beginning Art: Beginning Art is a one year course, consisting of Art 1 and Art 2. Art 1 is a prerequisite for Art 2. This course is a yearlong beginning level course for students who wish to explore visual art. Students will experience utilizing pencil, colored pencil, charcoal, collage, watercolor, acrylics, oil pastel, chalk, ink, and sculpture. Students will also participate in critiques, presentations, and small group discussions. Work outside of class will be required if work is not completed in class. *This may include: research of a particular artist, style, or period of art; preparation of an art project or portfolio; and reading, writing, or critical review.*

AP Art: The AP Studio Art, 2-D Design, Drawing and 3-D Design portfolio is designed for students who are seriously interested in the practical experience of art. AP Studio Art is not based on a written exam. Students will submit portfolios for evaluation near the end of the school year. These portfolios are produced while following the West Campus High School curriculum established for this course. There is no prerequisite for this class, but knowledge of basic art skills is advised and will be at the discretion of the instructor. It is highly recommended that students have completed a previous art course such as Beginning Art or Advanced Art.

The AP Program is a cooperative endeavor that helps high school students' complete college level courses and permits colleges to evaluate, acknowledge, and encourage that accomplishment through the granting of appropriate credit. Students will submit all of their work on-line and digitally turn it into the College Board. However, to receive high school credits, students will turn in the required assignments each quarter.

Advanced Art: Art P is a one year course, consisting of Art 3 and Art 4. Art 3 is a prerequisite for Art 4. This course is a yearlong advanced level course for students who have excelled in Art 1-2 and wish to further explore visual art. This course is designed to help students build up their portfolios for use in AP Studio Art, college acceptance, and/or job placement. Students will have further experience in utilizing pencil, colored pencil, charcoal, collage, watercolor, oil pastel, chalk, ink, and sculpture. Students

will also participate in critiques, presentations, and small group discussions. Work outside of class will be required. *This may include: research of a particular artist, style, or period of art; preparation of an art project or portfolio; and reading, writing, or critical review.*

12th Grade:

AP English Literature and Composition: Advanced Placement English Literature and Composition is a grade 12 course with an emphasis on literary analysis. It is a rigorous, college level course, in which students study the art of reading and writing about great literature. Throughout the course, students will be assessed on their ability to effectively and cogently communicate their ideas about what they read, both orally and in writing. Students will be given multiple opportunities to practice these skills before they take their AP Exam in May. Students who take this course are required to take both the AP Exam and the AP Practice Exam. Most highly competitive college and universities will award college credit for your successful completion of the examination (a score of 3, 4, or 5). The most competitive schools require a score of 4 or 5. To help you accomplish your goal, we will cover a significant number of works thoroughly rather than a great number of works superficially and sharpen your skills in analysis, synthesis, and evaluation.

This course is designed to comply with the curricular requirements described in the *AP English Course Description*. The AP Literature course will emphasize sophisticated analytical writing and speaking skills. The primary objective of this course, however, is that students will become lifelong lovers and critics of literature. Through reading and writing, students get a chance to explore worlds and ideas outside of their own, enabling them to develop empathy for other genders, ethnicities, generations, nationalities, religions and cultures. Literature is intimately involved in our quest to understand humanity and the societies we create. In AP English Literature and Composition, students are given multiple opportunities to discover and confront issues and questions that exercise their minds and intellects. The course will focus on two overarching questions: Why do authors write? (Author's purpose) and what is the "art" in their writing? (Author's craft). The texts for the course are selected for their broad themes and international literary merit.

AP Government: This AP U.S. Government and Politics course is a non-partisan introduction to the foundations and systems of United States Government. This course will introduce students to key political concepts, ideas, institutions, policies, and roles of the constitutional system and the political culture of the United States. Students will read and interpret data, make comparisons and applications, and make evidence-based arguments from Supreme Court decisions and U.S. foundational documents. This is organized around five units and a research project which focus on major topics in U.S. government and politics. This is a one-semester-long course.

AP Microeconomics: an introductory college-level microeconomics course. Students cultivate their understanding of the principles that apply to the functions of individual economic decision-makers by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like scarcity and markets; costs, benefits, and marginal analysis; production choices and behavior; and market inefficiency and public policy.

Psychology: This college-prep course is designed as an introduction to the academic study of psychology. Students explore such topics as psychological disorders and therapies, human development, the biological basis of behavior, learning processes, social behavior, states of consciousness, and sensation.

Ethnic Studies: Ethnic Studies courses operate from the consideration that race and racism have been, and continue to be, profoundly powerful social and cultural forces in American society. These courses focus on the experiences of African Americans, Asian Americans, Chicanas/ Latinas/, Native Americans, and other racialized peoples in the US. Courses are grounded in the concrete situations of people of color, and use a methodological framing that emphasizes both the structural dimensions of race and racism and the associated cultural dimensions. The major purpose of this course is to educate students to be politically, socially, and economically conscious about their personal connections to local and national history. Ethnic Studies focuses on themes of social justice, social responsibility, and social change. The course spans from past to present, from politics to social reform, allowing students to identify similar social patterns and universal qualities present in other societies, including their own.

Seniors are required to take either a math course or a science course - it is recommended to take both. Seniors are expected to take either an Advanced Placement (AP) course or enroll in a city college class.