



High School Course Descriptions 2022-23

Drama/Theater Arts	Drama/Theater Arts is a comprehensive introduction to theater production, design, performance, and critique fulfilling the Visual and Performing Arts (VAPA) credit required for graduation. In this class students will produce three separate performances and explore many different aspects of theater making, both on and off stage. By studying the content of this course, students will expand their knowledge of theater, improve their performance skills, and build self confidence. Students will study acting theory and enhance acting and audience skills by using improvisation as well as memorized, prepared scenes. Students will be introduced to theater history, technical theater, and some musical theater, film, and television. Students will also learn how to be an appropriate audience, and critique other's performances and productions.
Applied Physics and Engineering	Through this integrated science course, students will build concepts in earth science, life science, and physical science as they explore and develop skills in investigating phenomena such as problem solving, creativity, woodworking, invention, effective communication and the use of mathematics. Physics and engineering are hands-on learning experiences. This class will challenge students and engage their curiosity about the world and science around them. The course is aligned to the following NGSS Disciplinary Core Topics.
Architectural Engineering and Design	Architectural Engineering and Design is a course that introduces students to the field of architecture and the role architects play in our society. Real-world architecture is inherently a project based endeavor so this modality will be used as the primary means of exploring content. Projects will provide the contextual focus for students to learn important architectural concepts and in the process augment their technological, mathematical, scientific, and language literacy.
Biology	This course introduces students to several key concepts in biology. Throughout the year, students will study cells, genetics, ecology, anatomy and physiology and evolution. Also, students will become well-versed in applying the scientific method to their work. Students will solidify understanding through performing projects and labs.
Biology (H)	This is an honors biology course. This course will reinforce biological standards/concepts from class projects. The Scientific



	Method (observe, hypothesize, experiment, analyze and conclude) will be constantly employed and emphasized. Students will build a solid foundation of biological knowledge (cell biology, genetics, evolution, ecology, physiology and epidemiology) to prepare for the rigors of college.
Calculus	The basic objects of study in calculus are functions. In this course, functions are presented and analyzed from several points of view: as symbolic formulae, as graphs, as numerical data. Of primary concern is the connection and application of calculus to real life problems occurring in physics, chemistry, engineering, economics and finance. Similarly, the three main concepts of calculus (limits, derivatives, and integrals) are studied from these vantage points. All of these approaches to understanding are essential. Learning mathematics involves both achieving a deep understanding of concepts and learning new skills. As a consequence this course emphasizes broad concepts and widely applicable methods as well as facility with manipulation and computational competence. Technology is used regularly by the teacher and students to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation and to assist in interpreting results.
Chemistry	This is an introductory course in the foundations of chemistry. This course covers the topics specified in the California State Standards through in-depth explorations into the real-world applications of chemistry. Emphasis is on the development of critical thinking skills and problem solving. This course is project oriented, providing a hands-on environment for students to explore various chemistry concepts. This course is geared toward all students, providing a solid grounding in chemistry for all, and an introduction to chemistry fundamentals for those who will pursue additional science courses.
Digital Art & Mixed Media	Students in this course will prepare original artwork combining traditional art, digital art, and integrated art concepts. Instruction will be delivered in the following areas: Elements of art and principles of design, mechanical and computer design methods, finishing of art products, historical and cultural development of art and the design industry. This course will teach students how to organize ideas, create meaning in their original work, and work ideas into new and useful creations. Students will learn the art and science behind audio recording and engineering, as well as the fundamentals of graphic design and color.



English 1	In English 1, students will prepare for college by advancing their writing, research, reading, and formal presentation skills. In order to accomplish this, students will learn how to write formal 4, 5 and 6 paragraph essays. The types of essays written will include literary analysis of character and theme, compare and contrast essays, autobiographical essays, and research papers. In addition students will learn how to conduct meaningful research and correctly cite sources they used to collect the information according to the MLA Handbook. Students will expand their vocabulary and advance their knowledge of literary devices by reading various novels, short stories, poetry, and various non-fiction texts and articles.
English 2	English 2 continues the literary, written, and oral skill development from English 1. Throughout the year, students and teacher alike will discuss, debate, research, and evaluate how the past 500 years have affected and shaped American policies and global issues today. As a symbiotic team, we will relate the humanities of the past: art, music, philosophy, literature, and historical events, to our current society and personas. This will be achieved through projects, readings, research, and writing. Students will read a variety of world literature, including fiction and non-fiction pieces as well as poetry, stories, and media writings. Drawing upon these sources, students will continue to develop their writing by focusing on coherent essay structures, such as literary analysis, expository compositions, and persuasive arguments. Also, students will continue to develop oral speaking skills and effective argumentation. In this manner students will develop a greater global understanding, cultural literacy, and self awareness.
English 3	English 3 continues the literary, written, and oral skill development from English 2. Through in depth study of historical text, classic and contemporary American Literature, from the perspective of victors, villains, and victims-domestic and international, students will gain insight from the past and speculate outcomes for the future. The English objective is to provide students with experience reading, writing and analyzing a broad range of literature such as plays, prose, poetry, short stories, and novels. In addition, students will further hone essay writing skills, vocabulary, and reasoning practice to not only supplement their SAT/ACT preparation but prepare them for college-level course work.
English 3 (H)	Through the lenses of historical text, classic and contemporary American Literature; students will learn about various literary



	elements and encounter a wide variety of literary forms. Students will apply and further develop critical analysis, reading and writing skills. By the end of the course, students will be more critical readers and stronger writers.
English 4	English 4 continues the literary, written, and oral skill development from English 3. This course is meant to prepare students for the rigors of college-level writing, comprehension and textual analysis. The students will complete a variety of writing activities, including narrative, expository, analytical, persuasive, and informational writing, which demonstrates research, organization, drafting, and revising strategies. They will respond orally and in writing to literature of all genres. In addition to written work, they will participate in project based activities, exhibitions and portfolio assessments.
English 4 (H)	This honors course is meant to provide students with a critical reading, analysis and writing experience comparable to that of college-level English courses. Students will encounter many literary themes and topics throughout the year. As part of their learning, students will complete a variety of writing activities, including narrative, expository, analytical, persuasive, and informational writing, which demonstrates research, organization, drafting, and revising strategies. All students will analyze literature of all genres and respond to it critically through oral and written mediums.
Expository Reading & Writing	The purpose of the course is to prepare college-bound 12 graders for the challenges of college level writing and reading. Students will be expected to present their research to audiences of peers, teachers and community members, and they will improve their critical thinking by orally answering questions about their work. This rhetoric-based course will also have weekly discussions led by students focused on current events. In this semester class, students will also read one full-length non-fiction book, one fiction book as well as various essays, newspaper and magazine articles, editorials, reports, political satire and other shorter non-fiction texts. The purpose of this will allow students to understand how to analyze texts from various sources similar to those they will encounter in college. In addition, students will complete a written and comprehensive final exam at the end of the course that will consist of short answers and essays.
Math 1	Students will be exposed to a predominately Algebra I course with



	concepts of geometry and trigonometry integrated into the curriculum. The focus of the first semester is proportional reasoning. This focus will allow review of fractions, decimals, percents to basic trigonometric functions. The second semester's focus will be deductive reasoning. Students will discover concepts through hands-on activities and projects. Throughout the semester, students will apply and demonstrate their knowledge in real-world situations.
Math 2	The focus of Math 2 is the continued development of the students' ability to think critically about challenging and complex math problems using projects and discovery learning techniques as well as more traditional teaching methodologies. During the year students will develop their understanding of numbers and all types of numerical relationships. Students will deepen their grasp of fundamental mathematical concepts so that they can derive formulas and generalize equations. Students will also be expected to strengthen their problem solving skills by working with real world math problems and by thinking and writing about their problem solving process. In addition, students will become proficient with manipulating and graphing all manner of equations from more basic linear and quadratic equations to exponential, logarithmic, and trigonometric equations. In addition to the course content, this course will also help prepare students for the rigors of college by holding them to high academic and professional standards throughout the year.
Math 3	The focus of Math 3 is the continued development of the students' ability to think critically about challenging and complex math problems using projects and discovery learning techniques as well as more traditional teaching methodologies. During the year students will develop their understanding of numbers and all types of numerical relationships. Students will deepen their grasp of fundamental mathematical concepts so that they can derive formulas and generalize equations. Students will also be expected to strengthen their problem solving skills by working with real world math problems and by thinking and writing about their problem solving process. In addition, students will become proficient with manipulating and graphing all manner of equations from more basic linear and quadratic equations to exponential, logarithmic, and trigonometric equations. In addition to the course content, this course will also help prepare students for the rigors of college by holding them to high academic and professional standards throughout the year.



Math 3 (H)	The focus of Math 3 honors course is the continued development of the students' ability to think critically about challenging and complex Math problems using projects and discovery learning techniques as well as more traditional teaching methodologies. During the year students will develop their understanding of numbers and all types of numerical relationships. I expect students to deepen their grasp of fundamental mathematical concepts so that they can derive formulas and generalize equations. Students will also be expected to strengthen their problem solving skills by working with real world math problems and by thinking and writing about their problem solving process. In addition, students will become proficient with manipulating and graphing all manner of equations from more basic linear and quadratic equations to exponential, logarithmic, and trigonometric equations. Students in pre-calculus will also cover arithmetic and geometric series and touch on matrices and limits. In addition to the content, this course will also help prepare students for the rigors of college by holding them to high academic and professional standards throughout the year.
Math 4	In this class students strengthen their algebra and geometry skills by applying algebraic methods and geometry to various application problems arising in physics, finance, economics, surveying and construction. Students also begin to learn calculus concepts and methods although the main focus is on solidifying algebraic skills. In this way students begin to see how algebra skills and geometry concepts are used in the context of higher level mathematics. Technology is used regularly by the teacher and students to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation and to assist in interpreting results. The students will learn how to communicate about mathematics by a variety of means graphically, numerically, analytically and verbally.
Physics	This is an introductory course in the fundamentals of physics. Emphasis is placed on developing a conceptual understanding of physics principles, practicing problem solving skills, and learning laboratory and research techniques. Mathematics is used to further reinforce physics applications and concepts and to enhance problem solving and reasoning skills.
Spanish 1	This is an introductory course in Spanish language. Students will be taught fundamental language concepts and vocabulary. Emphasis will be on listening, reading, speaking and writing to



	acquire beginning proficiency in the language.
Spanish 2	This course is meant to build upon the linguistic foundation created during Spanish 1. Students will be taught fundamental language concepts and vocabulary. Emphasis will be on listening, reading, speaking and writing to acquire intermediate beginner proficiency in the language.
Spanish 3	Spanish 3 strengthens student's abilities to read, write, listen and speak the Spanish language with confidence. While studying different countries and cultures we will explore the differences in varying Spanish speaking countries, such as language tones, traditions and customs. On a daily basis, students will read, write and listen to the language using different sources. They will learn to organize information and work directly with a partner and in groups.
Spanish 3 (H)	This is an intermediate/ intermediate advanced course in Spanish language. Building upon the linguistic foundations built in Spanish 1 and 2, students will increase their fluency and explore topics in Spanish literature. Through exercises in listening, reading, speaking and writing, students' Spanish skills will mature to the level where they can comfortably converse with native speakers and navigate basic settings and situations in Spanish-speaking countries.
US History	This course is designed to explore the domestic and international impact of U.S. history on our present day state of affairs. Classic and contemporary American Literature, from the perspective of victors, villains, and victims-domestic and international will help us gain insight and attempt predictions. This adventure will include excursions such as colonialism, independence, war, imperialism, immigration, race, ethnicity, culture and much more. This course will strive to understand the basis of U.S triumphs and failures while maintaining objectivity. Honest opinions, questions, and comments respectfully delivered are encouraged. The history objective is to provide students with an in depth educational experience that captures the developmental progression of the United States. The focus of the course is to foster critical thinking skills and development of subject knowledge that will prepare students for success in college level history courses and on the SAT II U.S. History Subject Exam.
US History (H)	This course teaches students about significant domestic and



	international events in America's history and how to critically assess the impact these events have on our present day state of affairs. Using primary and secondary sources from all ages, students will view episodes in U.S. History from a multitude of perspectives and thus gain a richer knowledge and appreciation of America's past. The aim of this course is to develop students into historians and scholars who objectively examine historical documents to gather information and evidence upon which they build theories and arguments that they then communicate to others in a variety of formats.
World Cultures & Geography	During this course, students will become a community of learners in order to help them improve as writers, readers, researchers, world historians, public speakers and overall scholars. They will achieve this by defining what it means to be an educated member of our global society, and by researching how World Cultures and Geography have influenced international thought, technology and society. Together, we will explore many aspects of literature, theater, art, film, history, politics, religion, technology, and world cultures. Students will document and support their learning through essays, speeches and a wide variety of projects. By studying past and present global issues, they will learn and develop the skills necessary to positively impact their future world.
World History	In World History, students study modern world history from an international perspective. Our studies include relevant world history, geography, politics, and economics. In addition, students review the development of our nation's democracy and the rights and responsibilities that accompany citizenship. Finally, students develop study skills, critical thinking skills, and participation skills that are essential for effective citizenship. A large part of what we do as historians will be conducting research and analyzing primary documents. Students will read a wide variety of texts and writing in a number of different formats and styles throughout the year.