



# 2023-2024 Course Catalog

The Marin School's mission is to provide a collaborative learning community that inspires confidence, creativity, integrity, and academic excellence through a deep belief in each student's potential.

## Science, Technology, Engineering, & Math (STEM)

### SCIENCE

#### Biology

A laboratory-based overview of the aspects of biology, this course provides a solid foundation for the study of advanced electives and prepares students for college-level work in the life sciences. The main topics are cell biology, genetics, and physiology; the course also introduces ecology, evolution, and health. Students engage in hands-on labs, discussions, independent and group projects, and scientific model construction. Students who already have a strong foundation in biology have the choice to take a more challenging level that includes independent research, presentations, and further in-depth work.

#### Introduction to Biology

As in Biology, we study the main areas of biology, with a focus on cell biology, genetics, and physiology, while also including ecology, evolution, and health. This course has a greater emphasis on study skills and note-taking, and assessments are modified and include word banks. Students engage in hands-on labs, discussions, independent and group projects, and building scientific models. This is a modified course.

#### Chemistry

Chemistry is the study of matter and how it changes. More specifically, students learn about the fundamental building blocks of matter, how atoms combine to form compounds, and how those atoms and compounds rearrange themselves through chemical reactions. Students learn about the forces that hold matter together; the mechanisms in nature that produce energy transformations, chemical changes, and physical changes; the various types of matter; and the causes of the properties matter exhibits. During the process of learning chemistry, students develop their investigative and problem solving skills through lab experiments, class demonstrations, and problem solving. Topics covered include nomenclature, the mole, writing and balancing equations, stoichiometry, concentration and properties of solutions, the structure of the atom, electron configuration and periodicity, chemical bonding and phases of matter, the gas laws, properties of solutions, chemical kinetics, thermodynamics, equilibrium, acids and bases, oxidation and reduction, and electrochemistry. **Prerequisite:** Algebra 1 or permission by the instructor.

#### Chemistry (Honors)

The Honors course is a more advanced version of Chemistry that provides academically strong and motivated students with opportunities to enhance and enrich their education. Compared to Chemistry, the Honors course runs at a quicker pace and at a greater depth. Students are expected to produce work of higher quality, to develop more refined and advanced critical thinking skills, and to apply those skills. **Prerequisites:** A- or above in previous science course, placement recommendation from previous year's science teacher, and completion of Algebra 1.

#### Introduction to Chemistry

This hands-on introductory course covers the essential concepts of chemistry. It differs from Chemistry in that the focus is on chemical concepts and qualitative laboratory analysis as opposed to chemical formulas and quantitative laboratory analysis. The course minimizes the need for memorization and mathematics. Concepts include energy, atomic theory, atomic structure, periodicity, radioactivity, chemical bonding, chemical reactions, phases of matter, solubility, and acid-base properties. Students spend a significant amount of time studying everyday materials from the environment that we live in. Lab experiments and projects are central parts of the course. Students are provided with a scaffolded range of opportunities to learn, demonstrate knowledge, and succeed. This is a modified course.

#### Introduction to Physical Science

A survey of the most essential concepts of chemistry, physics, earth science, and space science. The material is conceptual and practical and minimizes memorization and mathematics. Lab experiments and projects are central parts of the course. Students are provided with a scaffolded range of opportunities to learn, demonstrate knowledge, and succeed. This is a modified course. **Prerequisite:** Biology or Introduction to Biology.

#### Environmental Science

Environmental Science is a rigorous laboratory science course. It is a dynamic interdisciplinary science that blends biology, ecology, chemistry, Earth science, physics, and even sociology and political science. We examine both local and global issues while learning how to collect, mathematically model, and analyze ecological data. Students learn that everything is connected and human activities alter natural systems. We examine the environmental consequences of both natural and human-made problems, evaluate relative risks, and examine solutions for solving these problems. We focus on sustainability and students examine their own homes, our school, our country, and other nations for our global impact on the planet. **Prerequisites:** Biology, Chemistry, and Algebra 1.

## Introduction to Environmental Science

This course introduces students to the essential ideas and principles of Environmental Science. The material is conceptual and practical and minimizes memorization and mathematics. Experiential lab experiments and projects are central parts of the course. Students are provided with a scaffolded range of opportunities to learn, demonstrate knowledge, and succeed. This is a modified course. **Prerequisites:** Introduction to Biology and Introduction to Chemistry.

## Astronomy 1-2

What do we see in the night sky? How do moons, planets, and stars move across the sky? How and when were the Earth, our solar system, stars, galaxies, and the Universe formed? What do we know about planets orbiting other stars? What are black holes? What is dark energy? In this laboratory science course, we explore questions like these — as well as questions generated by students — through experiments, simulations, research, data analysis, and evening-time observations of the sky both at home and on field trips. This study of astronomy and astrophysics is a fascinating way to learn about physics and chemistry including light and electromagnetic radiation, gravitation, particles and forces, atoms, and instrumentation. Students will be involved in critical thinking and scientific practices throughout the course. The accumulation of scientific knowledge of astronomy and astrophysics has increased rapidly during the past few decades, with more scientific instruments coming online every year. Astronomy is the oldest natural science and one of the few sciences where amateurs can make contributions. Students are required to attend at least three evening sessions at a Bay Area observatory, a star-watching event, and at school. Students will end this year-long course with a major project. **Prerequisites:** Algebra 1, Geometry, and Chemistry. **Co-requisite:** Algebra 2/Trigonometry. **Offered to Grades 11–12.**

## Introduction to Astronomy

This course introduces students to the essential ideas and principles of Astronomy and Space Science. The material is conceptual and practical and minimizes memorization and mathematics. Experiential observations, experiments, and projects are central parts of the course. Students are provided with a scaffolded range of opportunities to learn, demonstrate knowledge, and succeed. This is a modified course. **Prerequisites:** Introduction to Biology and Introduction to Chemistry.

## Physics

Physics is the branch of science that involves the study of the physical world: energy, matter, forces, motion, phenomena, and the relationships between them. Students learn the laws of physics in relationship to the familiar objects of everyday life. The emphasis is on comprehension before computation. Students engage in conceptual and analytical thinking, and perform order-of-magnitude calculations. Topics include mechanics, waves, electromagnetism, optics, the physics of the 20th century, and contemporary physics. Students work with objects from ordinary life, equipment from the laboratory, and computer simulations. Scientific ideas and problem-solving approaches are communicated using graphical, numerical, algebraic, verbal, and physical approaches in this laboratory science course. **Prerequisite:** Algebra 2/Trigonometry or permission from the instructor.

## Physics (Honors)

While the Physics course is organized around the conceptual functioning of familiar objects, Physics (Honors) is organized around mathematical modeling of theoretical and experimental situations. In this laboratory science course, students use the scientific method, conceptual reasoning,

mathematical modeling, hands-on experimentation, and investigation of objects of daily life. More so than Physics, Physics (Honors) requires a sophisticated understanding of mathematics, abstract reasoning, and analytical problem solving. In the data analysis component of the lab projects, students learn statistical methods that help scientists make inferences and evaluate experimental results. Students are expected to be self-starters who are excited about learning more mathematics and curious about the physical world. **Prerequisites:** Chemistry with a grade of at least A-, Algebra 2/Trigonometry with a grade of at least A-, and placement recommendation from the previous year's science teacher. **Co-requisite:** Pre-Calculus (Calculus recommended).

## Psychology

This elective is a survey of the field of psychology. It focuses on topics that provide a foundational understanding of human psychology, in a way that is relevant to the lives of high school students. The course touches on the following topics: the history of psychology, research methods, the biology of psychology, consciousness, genetics and evolution, developmental psychology, gender and sexuality, sensation and perception, learning, memory, thinking, language, intelligence, motivation, emotion, stress, health, personality, psychological disorders, methods of therapy, social psychology, and positive psychology. Students develop both academic and social skills, and have opportunities to increase their awareness of themselves and others. Students conduct research, perform studies, give multi-media presentations, and apply the growing body of knowledge from the natural sciences to the understanding of psychology. **Offered to grades 11–12 or grade 10 with History and Science teacher permission.**

## Introduction to Psychology

This course covers the same material as Psychology but with different options for assessment. This is a modified course. **Prerequisites:** same as Psychology.

## Virology with Laboratory

In this rigorous laboratory science course, students learn how viruses are relevant to human health and affect humans both globally and economically. Students will participate fully in seminar-style classes, write lab reports, and read primary literature. We study the viral life cycle: entry, reproduction, and transmission, and review the immune system and how the human body fights infections and the adaptations that viruses have evolved to fight back. Students learn the classification and nomenclature used in virology. Through the focus on a few select virus strains, we will learn general principles of how viruses are able to complete their life cycle and spread. Students will learn about current antiviral drugs, how they work, and how viruses rapidly mutate to evade these. Students will also examine historical outbreaks caused by viruses and the efficacy and controversy around vaccines. Throughout the course we will discuss the bioethics of virology and we will have safe labs using viruses that are not infectious to humans. We will use the scientific method to study different aspects of viruses during supervised inquiry-driven labs. **Prerequisites:** Algebra 1, Biology (Required), Chemistry (Recommended). **Co-requisites:** Algebra 2/Trigonometry (Recommended).

## Zoology

The Zoology lab science elective is a college preparatory survey of animal life and the great natural diversity of the world. We study evolutionary adaptations, zoogeography, ecosystems, animal behavior, phylogenetics-classification of animals, and embryonic development. Students engage in field studies of animals on campus and nearby national parks. Students observe live animal behavior and working morphology to

## Zoology (Cont'd)

strengthen student skills and bring course content to life, and perform classic dissections to explore internal animal anatomy.

**Prerequisite:** Biology.

## Introduction to Zoology

This course introduces students to the essential ideas and principles of Zoology. The material is the same as what is covered in Zoology, but students are provided with a scaffolded range of opportunities to learn, demonstrate knowledge, and succeed. Experiential lab experiments and projects are central parts of the course. This is a modified course.

# TECHNOLOGY AND ENGINEERING

## Engineering and the Fabrication Laboratory

This academic elective investigates and defines what technology is, teaches effective problem solving and design strategies, describes the use of technology tools, and illustrates the concepts with laboratory projects and real world applications. The TMS Fabrication Laboratory (Fab Lab) consists of a wide array of hand and power tools, computers, 3D printers, a laser cutter, a CNC mill, and various other technology tools that provide the working environment for the project-based aspects of the course. Recent projects are tricopter drones, robotic props, a RaspberryPi digital signboard, stop motion animation, electric guitars, an original video game, and more.

## Introduction to 3D Modeling and Animation (Fall semester)

In this course students learn 3-dimensional principles and apply them in the creation of 3D representations using Autodesk software. This course gives students the opportunity to create 3D objects, characters and scenes. Students arrange 3D models in environments, and gain understanding of how these skills translate into animations for games or visualizations. Students then learn and apply the principles of 3D animation and rendering, creating realistic objects that can be used in real-time virtual environments or can be prepared for printing on a 3D printer.

**Co-requisite:** Geometry.

## Applied Computer Programming: Robotics (Spring semester)

This course explores practical applications of programming concepts and takes students through a project-based series of investigations of more and more advanced programmable robots. The early units utilize commercially available robot kits, which result in mainly pre-determined robots. The latter units involve custom designs based on open-source parts and controllers, and require the students to apply what they have learned to a device that has not been designed for them. Students experiment with an advanced, but generic robot based on an open source micro-controller board. For their final project, students form teams and work together to develop a robot suited to a specific task, and then begin a 'test, refine, and re-test' process to learn how to optimize their robot. **Co-requisite:** Geometry.

## Computer Programming

Students of this computer science elective have an interest in working with algorithms, data, logic, algebra, geometry, discrete mathematics, processor-based devices, and bugs. While a large part of the course is spent programming, the focus is on problem-solving techniques commonly used in computer science and on the larger issues of computer science. Students gain more and more understanding of the big ideas of computer science:

creative development, data and information, algorithms and programming (including abstraction), computer systems and networks (including the Internet), and the impact of computing. The impact of computing addresses topics such as privacy, security, equity, copyright, artificial intelligence, and commerce. Students learn about computer architecture, such as the internal components of a computer, how computers deal with data and instructions, and the underlying computer logic.

During the first half of the course, students build a foundation with the building blocks of procedural programming (basic control structures, strings, file input/output, and arrays) and they get a taste of object-oriented programming. Students learn interactively and get immediate feedback. During the second half of the course, students continue to learn procedural programming skills while increasingly learning to use object-oriented programming concepts and principles. Students add and modify code for hands-on simulations, games, and animations on computers, microprocessors, and mobile phones. The course is project-driven and students are required to complete substantial programming projects. Students will learn at least one common contemporary language in depth. Object-oriented languages used in the past include Java and Python. **Co-requisite:** Algebra 2/Trigonometry, more math recommended. **Offered to grades 10-12.**

## Coding Projects (Semester, repeatable)

It is increasingly important — and fun — to be able to program devices. Intended to be accessible to every student. This course presumes no prior knowledge and uses languages that are straightforward to new students. Using programming skills learned as needed to complete their projects, students use their knowledge for applications such as games, simulations, web development, graphics, and data processing. Students select projects and present the results to their peers. Both text-based and drag-and-drop languages have been used in the past. **Prerequisites:** Algebra 1, Algebra 1B, or permission of the instructor. **Offered to grades 10-12, or grade 9 with permission.**

## Computer Programming 2

This elective is a more rigorous computer science course than its prerequisite and asks students for more independent thinking and more depth of understanding. The course prepares students for college level studies and computer science professions. Students study the seven big ideas of computer science: creativity, abstraction, data and information, algorithms, programming, the Internet, and global impact. Students complete several substantial projects. In addition to programming, students continue to learn about computer architecture. During the first semester, procedural programming, basic control structures, arrays, classes, inheritance, and interfaces are revisited in more detail. Topics that are mostly new to students include collections, recursion, searching, and sorting. During the second semester, students explore abstraction, data and information, and algorithms at a much deeper level than before. Topics that are mostly new to students include stacks, queues, linked lists, binary trees, and advanced data structures. **Prerequisite:** Computer Programming.

## MATHEMATICS

### Algebra 1

Concepts and skills covered in Algebra 1 include translating problems into equations, solving equations in one variable, polynomials, factoring polynomials, solving quadratic equations, applying complex fractions, functions, systems of equations, inequalities, and quadratic functions. A wide variety of applications are introduced when appropriate. For example, during a semester project students maximize profits of their small fictitious companies by using systems of inequalities and linear programming. **Incoming students who have completed Algebra 1 are enrolled in the appropriate higher-level math course.**

### Algebra 1A

This course is the first half of the Algebra 1 curriculum. The purpose is to develop higher order logic skills and to prepare for more advanced math classes. The course will begin by reviewing and strengthening basic math skills. During the year, we will cover a variety of topics including variables, expressions, solving equations, functions, absolute values, ratios and proportions, writing and graphing equations, graphing and solving equalities and inequalities, exponents, and polynomials. An emphasis will be placed upon finding success in all areas of life. You will become more confident in your math abilities while having fun learning the material. This is a modified course.

### Algebra 1B

The purpose of this course is to teach students an understanding of the properties of real numbers to formalize their use of the language of algebra. Students learn the behavior of linear functions numerically, graphically, algebraically, and verbally. They use these representations to analyze real-world situations in preparation for a more in-depth study of functions in Algebra 2. Students deepen their understanding of solving linear one- and two-variable equations and learn how to solve polynomial and rational equations. Course topics include a review of introductory algebra, measurement, graphing of data, linear equations, systems of linear equations, polynomials, factoring of polynomials, quadratic functions, and rational expressions. **Prerequisite:** Algebra 1A or the equivalent.

### Geometry

Geometry is the study of points, lines, angles, shapes, surfaces, and solids. Topics include planes, triangles, polygons, parallelism, congruency, similarity, triangle inequalities, trigonometry, circles, area and volume, coordinate geometry, symmetry, and transformations. Theorems and other results are derived using formal reasoning. Mathematical ideas are communicated using graphical (drawings, graphs, sketches, geometric constructions), numerical (tables, patterns, calculations), algebraic (formulas, symbolic reasoning, solutions), and verbal approaches (conjectures, proofs, explanations, self-reflection). Applications and hands-on activities are integral parts of the course. **Prerequisite:** Algebra 1.

### Introduction to Geometry

This course is an introduction to the major topics of geometry and their applications. The course emphasizes conceptual reasoning over analytic and deductive reasoning. In this interactive course, students will learn through guided activities and hands-on projects. This is a modified course. **Prerequisite:** Algebra 1 or Algebra 1B.

### Algebra 2

Mathematics provides the conceptual basis for the structure of understanding our natural world. This course is an extension for Algebra 1 and builds upon mathematical understandings to develop higher order thinking skills. Additional topics will be introduced through self-discovery methods, group projects and teacher-led class discussions. Fundamental skills will be applied to such topics as functions, equations and inequalities, quadratic and polynomial expressions, probability and statistics, rational and irrational expressions, and there will be an introduction to logarithms, series and sequences, and matrices. Technology will be used to introduce and expand each area of study and students will be using computers and graphing calculators to expand their understanding.

**Prerequisite:** Algebra 1 or Algebra 1B and Geometry, except by permission.

### Algebra 2 / Trigonometry

Algebra 2/Trigonometry goes deeper into the topics of its prerequisites and adds graphs of exponential, logarithmic, and trigonometric functions; analytic geometry, and other advanced topics. This course increases the students' awareness of the importance of mathematics in the modern world. Students become more confident of their ability to work with mathematical concepts and relationships. They learn how to think systematically and use the precise logic required for mathematical problem solving. This course builds on students' understanding of basic algebraic and geometrical concepts through the study of more advanced algebraic skills and problem solving. Topics include traditional topics of advanced algebra including trigonometry. Students learn to express real-world problems in algebraic sentences in order to find solutions. Successful completion of the course is an indispensable step in preparing students for the mathematics in their lives. **Prerequisites:** Algebra 1, Geometry, and placement recommendation from previous year's math instructor.

### Pre-Calculus

Together with Geometry and Algebra 2/Trigonometry, the Precalculus elective prepares students for college-level work in calculus and other mathematics classes as well as classes in quantitative fields such as the social sciences, the natural sciences, and engineering. Central concepts are mathematical analysis, functions and their graphs, trigonometry, and linear algebra. Mathematical ideas are communicated using graphical, numerical, algebraic, and verbal approaches. Through mathematical modeling, concepts are applied to problems in physics, chemistry, biology, economics, and many other disciplines. **Prerequisites:** Geometry and B- or higher in Algebra 2/Trigonometry.

### Calculus

Calculus is the study of rates of change. This interactive course introduces students to calculus as applied to business, economics, life science, physical science, and the social sciences. As students learn concepts and do explorations, they become involved in the development of each topic. This exploratory approach allows students to gain a deep understanding of the material. The course covers limits, differentiation, exponential and logarithmic functions, trigonometric functions, integration, the Fundamental Theorem of Calculus, differential equations, functions in several variables, and numerous applications for each. Graphical, numerical, algebraic, and verbal methods are stressed throughout the course. **Prerequisite:** Pre-Calculus and teacher recommendation.

### Statistics

This college preparatory introduction to statistics focuses on the statistical thinking behind data gathering and interpretation. Students summarize, represent, and interpret data with one or two categorical or quantitative

## Statistics (Cont'd)

variables, interpret linear models, evaluate random processes underlying statistical experiments, make inferences, and justify conclusions from sample surveys, experiments, and observational studies. Statistical ideas and reasoning — and their relevance — are explored in a wide variety of fields such as sports, medicine, education, environmental science, business, psychology, politics, and entertainment.

**Prerequisite:** Algebra 2.

## Business Math

This interdisciplinary course draws from mathematics and social science to guide students in building a strong foundation in logical thinking and problem solving that enables them to make good decisions concerning matters of money and finance in their daily lives. Topics include mathematics review, wages, salary, income taxes, budgeting, bank accounts, sales tax, interest, credit, mortgages, health insurance, certificates of deposit, securities, inflation, and job hunting. An introduction to business operations and financial statements includes markup, payroll, inventory, profit and loss statements, and corporate tax. Students use technology and apply it to real-life situations. Students complete several assignments with real life applications. **Open to grade 12; offered to grade 11 by permission.**

## Math Skills

This course teaches the fundamental math and problem solving skills necessary to succeed in high school math classes. Students gain confidence in understanding and using arithmetic, integers, fractions, proportions, decimals, percent, exponents, and elementary algebra. Study skills are emphasized throughout the course. This is a modified course.

# The Arts

## PERFORMING ARTS

### Drama 1–4

Drama 1–4 includes instruction in acting, stage movement, theatre technology, theatre history, as well as play building. Students explore concepts spanning the definition of theatre and character development through higher-level constructs such as improvisation and body and voice control. Class time is spent in a variety of activities including discussions, small group analysis and interpretation, improvisation, viewing of film and theatrical productions, scene work, the audition process, and rehearsal work. Small groups are used to generate ideas, to encourage students to share ideas with ease and to work cooperatively, to prepare group presentations, and to analyze and interpret selected works.

**Drama students present at least one production during the school year and additional outside-of-class rehearsal time is required for performance participation.**

### Jazz Band 1–4

Jazz Band is for students who understand their instrument. The class repertoire and direction is constructed around the instrumentalists and vocalists who enroll in the class. The students learn techniques of rehearsing and performing with a band as well as musical self-expression in terms of improvising solos. The repertoire includes intermediate-to-advanced levels of musical literature from various periods in jazz history, including Swing, Bebop, Latin Jazz, Modern Jazz, and Rock. Jazz history is taught in relationship to the music performed. Performances are required each semester. The students record the repertoire in TMS's recording studio and produce an album at the end of the year.

## Rock Band

Rock Band is for students who understand their instrument. This class is rooted in contemporary pop, rock, and blues songs and includes instrumental and vocal styles. The repertoire is constructed around instrumentalists and vocalists who enroll in the class, but will include intermediate-to-advanced levels of musical literature from various periods in rock history, including but not limited to: Classic Rock, Blues Rock, Metal, Jam Band, Electronic Rock, and Alternative Rock. The emphasis is on learning to play the songs as a group, as well as to improvise or "jam" on the songs. There is also room for incorporating electronic music into the group using Ableton Live software or synthesizers. Students will learn how to interpret song form, chords, and melodies with an emphasis on rhythm and rhythmic "feels." There is also the option to incorporate original songs into the group as well as to record songs using The Marin School's professional-quality recording studio. The group will perform at the winter and spring art festivals. Self-direction, motivation, and knowledge of an instrument are prerequisites for the class. **The class may be repeated for credit with instructor approval.**

## Recording Arts

Recording Arts is for musicians and non-musicians alike. The class is structured around the Pro-Tools recording software, which is the software used in most world-class studios today. Students learn how to record live instruments and digital loops onto the computer. They learn to process and edit the recorded material, and to mix their recorded tracks. This class allows musicians to learn how to record their music and non-musicians to learn how music is recorded, processed and mixed. This course is taught during lunch on selected days and students earn 2.5 credits per semester. **The course is credit/no credit.**

## VISUAL ARTS

### Studio Art

This course provides an opportunity for experimentation, expression, and exploration of the elements and principles of design. Using a variety of materials, students organize, develop artistic ideas, and refine their art skills. Trips to museums, audio-visual presentations, and class discussions help the students discover their own style and sources of inspiration. Students explore drawing, painting, printmaking, mixed media, and sculpture as they begin to develop their art portfolio.

### Drawing and Painting

This course focuses on the exploration of drawing and painting techniques to develop a portfolio. Through observation, critique, and discussion, students identify and interpret art and how it can influence and reflect the world around them. The work of artists from different art periods will serve as a reference for each project assigned. Students experiment with materials and techniques to develop greater self-awareness and artistic confidence. Students have opportunities to exhibit their work in exhibits and competitions. Students work with graphite, charcoal, ink, watercolor, acrylic, and digital art.

### Advanced Drawing and Painting

This class is for the art student who has completed the beginning and intermediate art classes. The class focuses on advanced art techniques for serious students that are building an art portfolio. We will be directly

### **Advanced Drawing and Painting (cont'd)**

applying the drawing skills and knowledge of art elements and principles gained from Drawing and Painting. Students will begin the development process of seeking their own style by investigating new materials for drawing, painting, printmaking, and mixed media. Projects are assigned to allow for personal interpretation, innovation, and problem-solving. Students will participate in regularly scheduled oral critiques/evaluations of student and master artwork. Prerequisite: Drawing and Painting.

### **Photography 1**

This class is an introduction to a wide range of topics in photography. The creative process and the making of digital images for the arts form the core of the course. Students are guided to hone their skills in producing impactful images, usually digital. On the technical side, students practice the operation of digital cameras and basic lighting techniques. They learn how to use digital editing techniques to enhance and alter their images. Students share and discuss their photography work frequently. Through visual aids and discussions, students gain familiarity with the critique process. Students explore the historical and contemporary art of photography as an effective form of communication used by professionals and non-professionals alike. Assignments demonstrate mastery of technical skills and creative expression. Students complete major projects. They regularly present and exhibit their work beyond the classroom.

### **Photography 2**

This course is a continuation and reinforcement of the skills and concepts taught in the Photography 1 course. More complex techniques are introduced and students engage in creative problem-solving and project creation. More than Photography 1, this course introduces students to the world of professional photography including both art and commercial photography. **Prerequisite:** Photography 1.

### **Photography 3**

This course instructs students in more advanced fundamentals of photography and broadens their technical skills and aesthetic values. Individual creativity and the ability to make a visual statement are stressed. Portfolio preparation is emphasized throughout the semester and students are required to develop a portfolio for presentation. **Prerequisite:** Photography 2.

### **Portfolio**

This senior advanced art course guides students to build on the techniques and media they mastered in previous visual arts courses, supporting them to develop a unique and creative body of work that is both accomplished and personal. Through the exploration of art history and contemporary artists, students will develop their personal voice. Visits from art schools will prepare students for portfolio reviews and their applications. Students will use the portfolio and writing assignments for college applications. **Prerequisite:** Senior students ONLY. Completion of Advanced art classes or similar. Intention to use the portfolio for college application.

### **Public Art**

This class exposes students to contemporary installation artists who create art in the public sphere. Inspired by these artists, students design their own projects, researching techniques and materials, budgeting and writing formal proposals, and creating their projects on campus. This course introduces students to public art and its role in society through field trips, readings, lecture, discussion, history, and research assignments, community arts projects, portfolio development, public art design, and fabrication of site-specific works.

### **Tech Arts: Foundations in Interactive & Immersive Digital Art**

In this course, students will learn the basics of interactive digital art - what it is, how to create it, and how to present it in various formats. Students will explore the latest game engine technology, learn visual programming, and work with micro electronics to create digital and physical artwork. Periodic 'Milestone Projects' for the course will require students to combine the various tools and skills they have learned up to that point to come up with a creative piece that reflects an assigned goal or prompt. The course will conclude with a culminating 'Final Project' of the student's design that incorporates any and all of the necessary skills learned throughout the course that would help the student achieve their vision of a final piece. All projects will be documented and then ultimately added to a student's "Course Portfolio" and presented in a public exhibition. Prerequisite: Instructor approval required. Also, all student's looking to take this course should be comfortable working with computers and technology as well as a strong interest in the visual or performing arts.

## **Humanities**

### **ENGLISH**

#### **English 1: Survey of Literature**

Students study writing, literature, and oral communication, with a strong emphasis on critical thinking. Writing is process-based, and students transition from writing about close observation of detail and personal experience to writing about ideas. Students are introduced to critical thinking and editing skills. Vocabulary development and mechanics and grammar are taught in the context of reading and writing assignments. Research and library skills are introduced and practiced in multiple contexts. The literature includes core works in major genres. Oral language activities sharpen the students' facility with language in group activities, classroom discussion, oral readings, and formal presentations.

#### **English Skills 1**

In this course, students build reading comprehension and critical literacy skills by exploring different genres of literature including short stories, the novella, poetry, drama and non-fiction. Students make connections with universal themes while developing reading skills and making connections to their own experiences and to the world around them. In this course, students participate in group discussions surrounding course content, and use technology appropriately to both access and create materials related to course content. This is a modified course.

#### **Writing Skills 1**

This course provides the support and tools students need to meet the demands of academic writing through systematic writing instruction. The instructional focus is on recognizing the key features necessary to organize concepts and structure the content of academic writing as a process: generating ideas, planning, writing, revising, editing, creating a final draft, and presenting. Students develop writing skills through various types of composing, including outlines, essays, business letter writing, and reports. This is a modified course.

## **English 2: World/Multicultural Literature**

This course continues the work of English 1 with a major focus on writing and critical thinking. As the course progresses, students continue to develop skills of observing, reporting, recounting, and synthesizing that enable them to evaluate literature of all genres. With both creative and analytical approaches, the course writing assignments seek to instill in students a multicultural understanding of literature as well as a strong foundation in critical thinking and text-based analysis. The curriculum includes selections in a variety of genres from around the world to allow students opportunities for discovering what makes each culture unique while also recognizing universal themes. **Prerequisite:** English 1 or English Skills 1.

## **English 2: World/Multicultural Literature (Honors)**

In the Honors section students are expected to handle a greater amount of material and more sophisticated texts than in the regular course. Writing assignments are longer and more frequent. A greater level of independence and proficiency allows time for deeper study and even more student-driven projects and presentations. **Prerequisites:** A- or above in English 1 and recommendation of the English 1 teacher.

## **English Skills 2: World/Multicultural Literature**

This course further prepares the students to be skilled readers in preparation for future coursework. The course ensures that students expand and deepen their abilities to read and understand a wide range of literary and historical texts from different historical periods. Students also learn how to access, evaluate, use, and attribute a variety of sources for research, as well as developing their abilities to generate relevant questions and synthesize and summarize information from several sources related to a single issue. This is a modified course. **Prerequisite:** English 1 or English Skills 1.

## **Writing Skills 2**

Students strengthen their understanding of various types of writing including academic writing. This course develops the students' writing processes and practices for producing successful academic compositions. Students learn to write persuasive, critical, and expository multi-paragraph thematic essays and compositions. Literature provides students with exemplary illustrations of various forms of writing. This is a modified course. **Prerequisite:** Writing Skills 1.

## **English 3 Contemporary Literature and Rhetoric:**

This course focuses on issues involving race, immigration, crime, personal responsibility and media biases as students explore a range of contemporary (20th and 21st Century) texts including speeches, documentaries, memoirs, personal narratives and essays, satires, novels, and visual rhetoric. Students create texts in the genres of creative nonfiction, speeches, argumentative essays, and analytical essays. **Prerequisite:** English 2 or English Skills 2.

## **English 3: Contemporary Literature and Rhetoric (Honors)**

The Honors curriculum moves at a quick pace and requires extended versions of assignments as well as supplemental reading of academic and critical texts. The central texts of the course are challenging throughout. Projects are in-depth, offering students opportunities to stretch their abilities and creativity. **Prerequisite:** A- or above in English 2 and recommendation of the English 2 teacher, or B- or above in English 2 Honors and recommendation of the English 2 Honors teacher.

## **English Skills 3: Contemporary Literature and Rhetoric**

This course focuses on issues involving race, immigration, crime, personal responsibility and media biases as students explore a range of contemporary (20th and 21st Century) texts including speeches, documentaries, memoirs, personal narratives and essays, satires, novels, and visual rhetoric. Students create texts in the genres of creative nonfiction, speeches, argumentative essays, and analytical essays. The course builds upon work done in previous English and Writing Skills courses, providing students with a scaffolded range of opportunities to demonstrate knowledge and addressing the full range of English language arts skills. This is a modified course. **Prerequisite:** English 2 or English Skills 2.

## **English 4: American Literature**

This course familiarizes students with their American literary heritage. Authors and works are considered both in the context of their historical background and for their lasting impact on society today. Discussions, writing assignments, creative projects, and presentations focus on the political, social, and cultural influences operating in each time period and on individual authors and works. Students are introduced to the concerns and styles of major American writers, and to movements in American literature. The course provides students with a solid writing program, including work in both creative and analytical modes, as well as an appreciation for the beauty of this country's various literary landscapes.

**Prerequisite:** English 3 or English Skills 3.

## **English 4: American Literature (Honors)**

Here students are expected to meet a standard of excellence in their work, exhibit an ability to function independently as well as collaboratively, and to move through material quickly with a great degree of proficiency. Essays spring from student-created theses, and lessons guide students who already excel at writing to develop their own voice and style. Honors students develop formal oral presentations with critical evaluation by the teacher and their peers. Projects are in-depth and challenging, offering students opportunities to stretch their abilities and creativity.

**Prerequisite:** A- or above in English 3 and recommendation of the English 3 teacher, or B- or above in English 3 Honors and recommendation of the English 3 Honors teacher.

## **English Skills 4: American Literature**

This course explores America's literary heritage. Authors and works are considered both in the context of their historical background and for their lasting impact on society today. Discussions, writing assignments, creative projects, and presentations focus on the political, social, and cultural influences operating in each time period and on individual authors and works. The course builds upon work done in previous English and Writing Skills courses, providing students with a scaffolded range of opportunities to demonstrate knowledge and addressing the full range of English language arts skills. This course is modified. **Prerequisite:** English 3 or English Skills 3.

## **Film as Literature**

This course provides students with a brief overview of filmmaking techniques, exposes them to seminal movies in a variety of genres, helps them develop their analytical skills in interpreting and evaluating films, and puts their creative skills to use in student-generated films. Students submit assignments in a variety of forms, including--but not limited to--analysis, review, and scriptwriting. Students also create storyboards, visual montages, autobiographical documentaries, and a final project to demonstrate their understanding of key concepts. Their culminating final

### **Film as Literature (cont'd)**

project will involve developing, writing, storyboarding, directing, and editing their own short film. Students will leave the class with a thorough understanding of film as an artistic method of storytelling, which is meant to be interpreted and analyzed for its meaning and purpose. **Open to grades 10, 11 and 12. Full-credit academic elective.**

### **Writer's Workshop**

In Writer's Workshop, a creative writing course, students explore a variety of genres, while sharpening their writing, reading, and thinking skills. Students have the opportunity to write poetry, short stories, creative nonfiction, illustrated texts, and essays. In the second semester, students spend time working on their own self-designed projects that cater to their interests and skills. The class workshop atmosphere will encourage the thoughtful discussion and revision of work throughout the different stages of the writing process. Submitting work for publication and sharing it in readings will be an expected goal for course participants. **Open to grades 10, 11 and 12. Full-credit academic elective.**

## **SOCIAL STUDIES**

### **Geography**

This course focuses on the profound role that geography plays in shaping our world. Students analyze the relationship between physical and human geography through the study of demography, cartography, history, and modern cultural phenomena of the major global regions, including North and South America, Europe, the Middle East, Asia, and Africa. They discover the links between regions and the characteristics that make them culturally and physically unique. The class is conducted in seminar format. Key skills emphasized include writing, speaking, presenting, and researching.

### **Introduction to Geography**

This multicultural cross-disciplinary course helps students develop a greater awareness of how their lives are connected to the lives of people around the world through the study of world cultures. Students evaluate how geography influences history and culture. Students explore major concepts in human geography including place, space, scale, landscape, the geography of population, culture, identity, economics, politics, agriculture, and of cities, and participate in discussions about world events and about the importance of geography in understanding these events. In this course, instruction with scaffolding supports students in developing skills in critical thinking, research, and problem solving. This is a modified course.

### **Modern World History**

Students examine the major trends, characters, and events of Western civilization since Ancient Rome and Ancient Greece. We consider the philosophy, science, art, and literature of each period and discuss how these historical developments relate to contemporary social and political issues. The course is conducted in a variety of formats including seminar-style discussions, lectures, and group work. Student work includes short essays, artistic projects, presentations and major research projects. Most of the class readings are from primary documents and outside sources, including the Internet, magazines, and newspapers. As many of today's conflicts can be traced to the history students are studying, current events have an important place in this course. **Prerequisite:** Geography or Introduction to Geography.

### **Modern World History (Honors)**

The Honors class covers the same material as the Modern World History class but explores events in greater depth. The class has a stronger emphasis on writing and primary source materials. **Prerequisite:** A- or above in Geography and recommendation of the Geography teacher

### **Introduction to Modern World History**

In this course, students study the development of modern world history from the Renaissance to the 20th century. Students develop an understanding of how our world came to be as it is today, and develop critical thinking skills needed to understand complex connections between the past and the present. Student work includes short essays, art projects, oral presentations, and research projects. Class readings include primary documents and other sources including the Internet, magazines, and newspapers. Instruction with scaffolding continues to support students in developing skills in critical thinking, research, and problem solving. This is a modified course. **Prerequisite:** Geography or Introduction to Geography

### **United States History**

This seminar-style course focuses on discussion of the major turning points in American history from the colonial era to the present. The first half of the course looks at the events that shaped America as a nation before the 1900s: the westward expansion; the transformation brought about as a result of the Industrial Revolution; the Civil War and its economic, social, and political ramifications for the United States as an emerging world power; and the rise of big business and the industrialists, coupled with the impact of immigration on the U.S. The second half includes the Progressive Era, WWI, the Jazz Age and the 1920s, the Great Depression and the New Deal, WW II, the Civil Rights Era, and finally, the role of the US as a superpower and the problems inherent with that authority. **Prerequisite:** Modern World History.

### **United States History (Honors)**

The Honors class covers the same material as the U.S. History class but explores events in greater depth. The class has a stronger emphasis on writing and on primary source materials. **Prerequisite:** A- or above in Modern World History and recommendation of the Modern World History teacher, or B- or above in Modern World History Honors and recommendation of the Modern World History Honors teacher.

### **Introduction to United States History**

Students in this course study the major turning points in American history from the colonial era to the present. The first half of the course looks at the events that shaped America as a nation before the 1900s: the westward expansion; the transformation brought about as a result of the Industrial Revolution; the Civil War and its economic, social, and political ramifications for the United States as an emerging world power; and the rise of big business and the industrialists, coupled with the impact of immigration on politics and culture. The second half includes the Progressive Era, WWI, the Jazz Age and the 1920s, the Great Depression and the New Deal, WWII, the Civil Rights Era, and finally, the role of the US as a superpower and the problems inherent with that authority. This course provides students with a scaffolded range of opportunities to learn, demonstrate knowledge, and succeed. This is a modified course. **Prerequisite:** Modern World History or Introduction to Modern World History.

### **American Government**

This elective course examines the basic three-part system of government in the United States. Foreign policy, economic issues, on-going elections, and current events are part of regular class discussions as we consider



### **American Government (cont'd)**

American government in action. The main goal is to promote a greater understanding of and appreciation for our system and democratic institutions, and to engender a spirit of civic awareness and responsibility. Constitutional law is a key part of the course and the culminating project for the term is the TMS Moot Court, where the students research a case currently before the U.S. Supreme Court, write a legal brief and present an oral argument. **Prerequisite:** United States History.

### **American Government (Honors) (Fall Semester)**

The Government Honors class covers the same material as in the Government class and has significant additional reading and writing assignments. **Prerequisite:** A- or above in US History and recommendation of the US History teacher, or B- or above in US History Honors and recommendation of the US History Honors teacher.

### **Introduction to American Government (Fall Semester)**

This elective course examines the basic three-part system of government in the United States. Foreign policy, economic issues, on-going elections, and current events are part of regular class discussions as we consider

#### **Introduction to American Government (Cont'd)**

American government in action. The main goal is to promote a greater understanding of and appreciation for our system and democratic institutions, and to engender a spirit of civic awareness and responsibility. This course provides students with a scaffolded range of opportunities to learn, demonstrate knowledge, and succeed. This is a modified course.

**Prerequisite:** United States History or Intro to United States History.

### **Economics (Spring Semester)**

This elective course introduces students to the language, tools, and concepts of macroeconomics and microeconomics. Topics include scarcity, supply and demand, business structures, economic systems, GDP, fiscal and monetary policy, and international trade. The class engages in a stock market simulation and several projects involving research and presentations. Classes operate in a seminar format, with students discussing and applying concepts from the text or additional readings. **Prerequisite:** United States History.

### **Introduction to Economics (Spring Semester)**

This elective course introduces students to the language, tools, and concepts of macroeconomics and microeconomics. Topics include scarcity, supply and demand, business structures, economic systems, GDP, fiscal and monetary policy, and international trade. This course provides students with a scaffolded range of opportunities to learn, demonstrate knowledge, and succeed. This is a modified course. **Prerequisite:** United States History or Introduction to United States History.

### **Politics and the Media**

This one-semester elective introduces students to the connections between politics and the media and fosters the development of critical thinking skills necessary to maturely analyze print and broadcast media. Drawing on a wide array of sources, students examine the role of mass communication throughout modern history, analyze various forms of media through sociological, political, cultural, and economic frameworks, and evaluate media coverage and representation of past and current events. The course begins with an introduction to basic concepts of information technology, written and oral communication, political ideology, media bias, journalistic ethics and responsibility, and constitutionality. Students then investigate how media coverage has shaped our understanding of modern historical and political events; analyze the role

of propaganda throughout history; compare radio, television, Internet, and print news media in the United States; and analyze conservative and liberal American news media outlets. Finally, they learn to compare various English-language media outlets around the world and become familiar with media watchdog organizations and alternative news sources.

**Offered to grades 11 - 12.**

### **Social History of Popular Music (Fall Semester)**

This semester-long course covers a history of 20th century popular music and its symbiotic relationship with modern society and culture. This class will differ from a music appreciation class because it will primarily focus on the social and political events of the second half of the 20th century that influenced popular music. **Offered to grades 11–12 or grade 10 by permission.**

## **WORLD LANGUAGE**

### **Spanish 1**

Spanish 1 In this introductory language course, students learn the basics of speaking, listening, reading, and writing in Spanish. Students practice speaking and listening skills intensively in class and complete regular writing and reading assignments outside class. Students study vocabulary for everyday existence in a Spanish-speaking culture, basic grammar, including agreement, and forming and answering questions. Students learn the conjugations of regular, irregular, and stem-changing verbs and the present progressive. **Incoming students who have completed Spanish 1 or the equivalent are enrolled in the appropriate higher-level Spanish course.**

### **Spanish 2**

Spanish 2 students study intermediate skills in Spanish, building on basic vocabulary and grammar from Spanish 1. Students learn to understand, speak, and write the language at a higher level. Students expand their vocabulary and learn additional regular and irregular present tense verbs, the imperative mood, the past tense, and direct and indirect object pronouns. They use the target language almost exclusively in class, in response to the teacher, and in group exercises. Oral work is emphasized and solidifies new grammatical structures and vocabulary while improving pronunciation and enhancing communication skills. **Students may be placed in a higher-level course depending upon their previous year's work.**

### **Spanish 3**

Reading and writing activities are more sophisticated and receive greater emphasis in this course. Throughout the course, students learn about the daily lives of Spanish-speaking peoples. They learn expressions conveying agreement and disagreement as well as those used to continue or change the direction of conversation. The Spanish 3 course focuses on improving conversation skills as well as reading comprehension. The topics covered encompass a review of Spanish 1 and 2, preterit tense versus "imperfect" tense, future tenses, conditional, present perfect, progressive forms of the tenses, commands, and an introduction to the subjunctive.

### **Spanish 4**

Spanish 4 encompasses oral skills, reading, comprehension, grammar and composition, and emphasizes the use of Spanish for active communication. The course reflects interests shared by the students and teacher (the arts, history, current events, literature, culture, sports, etc.).

### **Spanish 5/6 (Honors)**

This college-level elective conducted in Spanish is intended to foster bilingualism and bi-literacy. Students engage in the use of Spanish from the beginning in studying, gathering, synthesizing, and discussing information about the Spanish-speaking world, including the US. They learn about various aspects of the Spanish-speaking world, including society, history, economics, politics, geography, and the arts. They demonstrate their understanding of the everyday interaction of people, both at home and abroad, and the rules of etiquette and customs that govern this interaction. Finally they work collaboratively and independently, using a variety of resources in Spanish (magazine articles, newspaper reports, video, radio, etc.) to develop and expand their knowledge of the Spanish-speaking world. In doing so, they gain a better understanding of themselves and the world in which they live. **Prerequisites:** A- or above in Spanish 4 and recommendation of Spanish 4 teacher.

### **American Sign Language 1**

This beginning level course in American Sign Language (ASL) introduces students to the 4th most used language in the U.S. Deaf culture and history are integrated into the instruction of the basics of ASL vocabulary, grammar and syntax, finger-spelling, numbers and expressive and receptive skills. Projects, presentations, skill-building activities and games, as well as interactive communication, are used to enhance and enrich developing expressive and receptive skills. Major language functions include introductions, asking and describing who, numbers, specifying where, giving commands, following instructions, exchanging information, discussing living situations, talking about family, talking about activities, and storytelling.

### **American Sign Language 2**

This intermediate course continues to build, review and expand ASL vocabulary, grammar and syntax, finger-spelling, numbers and expressive and receptive skills that allow students communicate in a wider array of situations. Language fluency is further developed and comprehension of ASL is advanced. Projects, presentations, skill-building activities and games as well as interactive communication are used to enhance and enrich developing expressive and receptive skills. Major language functions include describing people and things, making requests and asking for advice, describing places, giving opinions, discussing plans and goals, and telling stories. **Prerequisite:** American Sign Language 1.

### **American Sign Language 3**

This second intermediate course in ASL is designed to expand the student's vocabulary, and continue their development of grammatical structures and conversational skills. Projects, presentations, skill-building activities and games as well as interactive communication will be used to enhance and enrich developing expressive and receptive skills. Major language functions include narrating past events, asking for solutions to everyday problems, telling about life events and describing objects. Students will continue to enhance their studies and awareness of the Deaf culture by experiencing local Deaf events in the community when available.

## **Other Courses**

### **9th Grade Seminar**

The 9th Grade Seminar is a year-long program for incoming Freshmen that focuses on skills for one semester, independent project management for one semester, and a final presentation at the end of the year. The first semester allows the student to build foundational Information Literacy Skills (e.g., cultivating effective study habits, time management strate-

gies, digital citizenship, etc.); explore various Art and Design elements (e.g., hands-on exploration of a variety of media, practicing design thinking, building visual communication skills, etc.); and engage in Social Emotional Learning (e.g., developing social skills, practicing emotional resiliency, etc.). In the second semester students will intertwine the skills introduced in the first semester by developing and presenting a Passion Project. Students are guided to discover an area (or areas) that are of deep interest to them and then to build a program that encompasses their individual and unique interest(s). Through research and reflection, with differentiated mentor-ship, students are empowered to develop their own goals. These projects then culminate in a presentation in which the students are free to choose any format to present their findings, experience, product, etc. These presentations ultimately demonstrate mastery of the first semester elements/tools as well as exhibit self-reflection, personal growth and honest self-assessment.

### **Study Hall**

Study Hall supports the academic and practical skills students need to be successful learners in high school and beyond. Study Hall meets four times per week. Students work on homework, tasks that require additional time, or long term projects, as needed based on their schedule. No new assignments are given during study hall. **Required for Grade 9, available to Grades 10-12, except in instances when school is conducted remotely. When school is conducted remotely, Study Hall is required for all grades.**

### **12th Grade Seminar**

During senior year, students will have the opportunity to be steeped in college prep and future-readiness activities in the following areas: Information Literacy, Transition Planning, Life Skills, Career Readiness, and/or culminating their TMS career in a Portfolio/Capstone Project. This course will be taken during the student's Study Hall block, and will include skills to prepare students for life after high school. There are three strands which offer 1 credit each (Information Literacy, Life Skills, and Portfolio/Capstone Project). Students may enroll in any or all of the strands.

### **Teaching Assistant**

Students who are interested in classroom leadership and support opportunities are able to pursue a teaching assistantship in the fall or spring semesters. As a TA, students are expected to support the teacher and students in the course. Specific duties will vary based on the course but could include lab materials preparation, content review with peers, leading a demonstration, etc. **Prerequisites:** Successful completion of the course and teacher approval.

### **Physical Activity & Health**

By the end of this course, students will be able to answer the question, 'Why does physical activity matter to me?'. The course will explore the interconnections of physical activity, social-emotional health, nutrition, and sleep hygiene through study and structured physical activities. Students will actively participate in physical activity each class, including team sports, strength & conditioning, yoga, and more. Through this class, students will: be introduced to human physiology and how the body functions during exercise; uncover harmful stereotypes and myths in modern fitness culture; practice ways to manage or improve social-emotional health with physical activities such as exercise and meditation; analyze how physical activity and team sports play a role in positively managing mental health; and learn the basics of nutrition as it pertains to living a healthy and active lifestyle as well as the importance of proper sleep habits. Successful completion of the course will satisfy 1 semester of P.E. credit.

# TMS Graduation Requirements

Students must be enrolled in a minimum of five academic courses each semester. The total classes required for graduation is 22 plus 2 years of regular or alternative physical education.

## Minimum graduation requirements include:

English:	4 years (40 units)
Mathematics:	3 years (30 units) (4 years rec.)
History:	3 years (30 units)
World Language:	2 years (20 units) –same language (3 years rec.)
Science:	2 years (20 units) (Bio and Chem or Physical Science required)
Academic Electives:	2 years (20 units)
Fine/Performing Arts:	2 years (20 units)
Additional Classes:	3 years (30 units)
Physical Education and/or Alternative Physical Education:	2 years (10 units)
9th Grade Seminar:	1 year (10 units)*
Participation in Outside the Walls:	4 years**

\*Not required for transfer students

\*\*Waived when conditions do not allow this program to run

**A note about modified courses:** Student requirements in modified course are individualized to meet each student's learning needs, and as such the curriculum is not UC/CSU approved.

## UC/CSU Approved Course List (with requirements)

### History / Social Science ("A") 2 years required

Two units (equivalent to two years) of history/social science required, including: one year of world history, cultures and historical geography and one year of US History; or one-half year of US History and one-half year of Civics or American government.

Modern World History	Modern World History Honors
United States History	Geography
United States History Honors	American Government
American Government Honors	

### English ("B") 4 years required

Four units (equivalent to four years) of college preparatory English composition and literature required, integrating extensive reading, frequent writing, and practice listening and speaking with different audiences. Students may only use 1 year of ESL/ELD English.

English 1 Honors	English 1
English 2 Honors	English 2
English 3 Honors	English 3
English 4 Honors	English 4

### Mathematics ("C") 3 years required, 4 years recommended

Three units (equivalent to three years) of college-preparatory mathematics (four units are strongly recommended), including or integrating topics covered in elementary algebra, advanced algebra, and two-and three-dimensional geometry.

Algebra 1	Geometry
Algebra 2	Algebra 2 / Trigonometry
Statistics	Pre-Calculus

### Laboratory Science ("D") 2 years required, 3 years recommended

Two units (equivalent to two years) of laboratory science are required (three units are strongly recommended), providing fundamental knowledge in two of the following: biology, chemistry, or physics. A yearlong interdisciplinary science course can meet one year of this requirement.

Biology	Chemistry
Physical Science	Chemistry Honors
Physics	Physics Honors
Physics Honors	Zoology
Virology with Laboratory	Environmental Science
Astronomy 1-2	

### Language Other than English ("E") 2 years required, 3 years recommended

Two units (equivalent to two years, or through the second level of high school instruction) of the same language other than English (three units recommended).

Spanish 1	Spanish 5/6 Honors
Spanish 2	American Sign Language 1
Spanish 3	American Sign Language 2
Spanish 4	American Sign Language 3

### Visual & Performing Arts ("F") 1 year required

One unit (equivalent to one year) required, chosen from one of the following categories: dance, music, theater, or visual arts (e.g., painting, web/graphic design, film/video, inter/multimedia arts).

Drama 1-4	Public Art
Drawing and Painting	Studio Art
Advanced Drawing and Painting	Photography 1-3
Jazz Band 1-4	

### College-Preparatory Elective ("G") 1 year required

One unit (equivalent to one year) chosen from the "a-f" courses beyond those used to satisfy the requirements of the "a-f" subjects, or courses that have been approved solely in the elective area.

Applied Computer Programming: Robotics	Business Math
Computer Programming	Computer Programming 2
Engineering and the Fabrication Laboratory	Economics
Film as Literature	Intro to 3D Modeling/Animation Portfolio

