



PACIFIC PREPARATORY

COURSE CATALOG

High School Courses

2023-2024

TABLE OF CONTENTS

Mission	3
High School Graduation Requirements	4
Course Selection & Customization Process	6
Assessment of Course Completion	6
Sample Customized Four Year Plan	7
Grades, GPA and Progress Reporting	8
Advising & Special Topics	8
Standardized Testing	8
Academic Calendar	9
English	9
History	11
Mathematics	14
Science	16
Arts	20
Languages	22
Health	23
Physical Education	23

MISSION

Our goal is to facilitate student success in a space where students and teachers can develop meaningful relationships and thrive. We value engaging curriculum, flexibility, and a holistic approach to support the individual needs of our students.



Our vision includes academic programming for our students that inspires:

- a love of learning
- confidence
- self-advocacy

We provide students with a combination of one-on-one, live teacher support and customized curriculum. This isn't the average way students learn, but then again, we're not an average school.

We have innovated on the tutorial model used at Oxford and Cambridge to help our students become independent and creative thinkers. Our one-on-one instruction, our exceptional teachers, and our visionary leadership support our students through every step of the learning process. When working with us, it's common for children to exceed grade level expectations. Through our one-on-one tutorials, K-12 students find deep learning and success.

HIGH SCHOOL GRADUATION REQUIREMENTS

Our baseline graduation requirements for full-time high school students enrolled at Pacific Preparatory follow the most conservative guidelines mandated by the state of California and A-G course requirements. Please see the chart below for details.

ENGLISH LANGUAGE ARTS	
Pacific Preparatory Requirements	A-G Requirements/CA State Mandated
<i>Four years English Language Arts</i>	<i>Four years of college-preparatory English composition and literature required, integrating extensive reading, frequent writing, and practice listening and speaking with different audiences.</i>
HISTORY	
Pacific Preparatory Requirements	A-G Requirements/CA State Mandated
<i>Three years social studies including one year of world history and one year of US history & geography, one semester of American government & civics and one semester of economics</i>	<i>A-G: Two years of college-preparatory history/social science required, including: one year of world history, cultures or historical geography, and one year of U.S. history; or one-half year of U.S. history and one-half year of civics or American government. CA State: Three years of history/social studies, including one year of U.S. history and geography; one year of world history, culture, and geography; one semester of American government and civics, and one semester of economics.</i>
LANGUAGES	
Pacific Preparatory Requirements	A-G Requirements/CA State Mandated
<i>Two years languages (other than English)</i>	<i>Two years of college-preparatory coursework required (or through the second level of high school instruction) of the same language other than English (three years are recommended). Language levels are defined by the number of years of high school instruction (e.g., LOTE 1= 1 year; LOTE 2 = 2 years, etc.).</i>
MATHEMATICS	
Pacific Preparatory Requirements	A-G Requirements/CA State Mandated

<i>Three years mathematics</i>	<i>Three years of college-preparatory mathematics required (four years are strongly recommended), including or integrating topics covered in: elementary algebra, advanced algebra, two-and three-dimensional geometry.</i>
LAB SCIENCE	
Pacific Preparatory Requirements	A-G Requirements/CA State Mandated
<i>Two years lab science, including chemistry and biology</i>	<i>Two years of college-preparatory science, including or integrating topics that provide fundamental knowledge in two of these three subjects: biology, chemistry, or physics. One year of approved interdisciplinary or earth and space sciences coursework can meet one year of the requirement. Computer Science, Engineering, Applied Science courses can be used in area D as an additional science (i.e., third year and beyond).</i>
ARTS	
Pacific Preparatory Requirements	A-G Requirements/CA State Mandated
<i>One year visual & performing arts</i>	<i>One year of college-preparatory visual & performing arts required, chosen from one of the following disciplines: dance, music, theater, visual arts (e.g., painting, web/graphic design, film/video, inter/multimedia arts), or interdisciplinary arts.</i>
ELECTIVES	
Pacific Preparatory Requirements	A-G Requirements/CA State Mandated
<i>One semester Health and Body</i>	<i>One semester of college-preparatory coursework required, chosen from: courses approved specifically in the elective subject area, or courses approved in the A-G subject areas beyond those used to satisfy the requirements of the A-G subjects.</i>
PHYSICAL EDUCATION	
Pacific Preparatory Requirements	CA State Mandated
<i>Two years of physical education (may include dance, yoga, etc.)</i>	<i>Two years of physical education</i>

COURSE SELECTION & CUSTOMIZATION PROCESS

Incoming students will create a customized four year course plan in collaboration with the Admissions Manager and Curriculum Specialist. This plan will take into account graduation requirements, goals, interests and needs. Coursework will be modified according to student needs and core and federal academic standards. Students hoping to take accelerated (AP-level or higher-level math) coursework must prove their ability to keep up with the rigor of the academics via placement exams and previous coursework.

We may also make recommendations around college counselors, test preparation, or other wrap-around support services. These recommendations will aim to provide the student and their family with a robust high school experience that prepares them for their next stage. Our recommendation is students carefully pair required coursework with complementary electives in order to provide a robust, engaging & well-rounded high school experience.

ASSESSMENT OF COURSE COMPLETION

In order to pass their classes and move on to higher-level coursework, students must prove their mastery of subjects through a combination of participation in classes (60 hours of live instruction minimally per required course, 30 hours minimally per elective course), assessment via projects or testing, and teacher recommendation. If a teacher does not recommend a student for course completion, the student may need to complete summer remediation or retake the course to receive credit towards graduation.

SAMPLE CUSTOMIZED FOUR YEAR PLAN

The following sample four year plan shows how we might customize coursework for a musician who eventually wants to attend the Juilliard School.

	9TH	10TH	11TH	12TH
ENGLISH	<i>English I:</i> Theme: Lyricism in Text Elective: Poetry	<i>English II:</i> Theme: How Artists Write About Art Elective: Songwriting & Lyrics	<i>English III:</i> Theme: Elective: Music Criticism	<i>English IV:</i> Theme: Musicians in Context (Biographies) Elective: Journalism & Blogging (about music)
MATH	Algebra I	Geometry	Algebra II	Pre-Calculus
SOCIAL STUDIES	Ancient Civilizations & the Origins of Music	Modern World History Elective: The Geography of Music	US History & Civics	AP Human Geography
SCIENCE	Biology & Biology Lab	Chemistry & Chemistry Lab	Physics	Science Elective: Sound & Acoustics
ARTS	(Independent: Band)	Website Design	(Independent: Band)	Podcast Creation
PHYSICAL ED	Hip hop dance	Hip hop dance	Hip hop dance	Hip hop dance
SPECIAL PROJECTS	Music in schools Volunteering & community service project	Music in schools Volunteering & community service project	Music in schools Volunteering & community service project	Music in schools Volunteering & community service project
STANDARDIZED TEST PREPARATION	PSAT	PSAT	ACT or SAT AP Music Theory SAT II Math (L1) SAT II Lit	ACT or SAT AP Human Geography

GRADES, GPA AND PROGRESS REPORTING

Students in all program types will receive diagnostic assessments (ELA and math), syllabi, progress reports, and report cards according to our academic calendar. All high school students will receive semester grades and their GPAs will be weighted if they have opted to take AP and/or Honors-level courses. Official transcripts are provided upon request.

Students enrolled at PacPrep may earn credit for a course taken at another school. The course must be academically comparable and meet formal grading expectations. Credit will be accepted at the discretion of Pacific Preparatory.

ADVISING & SPECIAL TOPICS

Full time students in grades 6-12 will be assigned an advisor and will meet with their advisor yearly to discuss the following:

- Goals
- Extracurriculars
- Volunteer & internship opportunities
- Leadership & entrepreneurship projects

STANDARDIZED TESTING

We recommend college-bound students consider preparations for taking standardized tests as part of their coursework. Considering these preparations at least a year prior to the exam date will provide ample time to prepare. Test preparation is offered through Tutor Corps.

Tests include:

- PSAT or PreACT
- SAT or ACT
- SAT II
- AP exams

ACADEMIC CALENDAR

In general, the schedule for Pacific Preparatory follows that of a traditional academic school year, with federal holidays and longer breaks in the winter and spring. Students may also choose to continue coursework over the summer, including both reviewing prior learning and preparing for the following school year. Review our academic calendar on our website.

HIGH SCHOOL-LEVEL COURSE LISTINGS

Courses described below are organized by subject area and provide a baseline for academic planning purposes. Through our customization process, we adjust the content of our syllabi for each student according to that student's goals, interests and needs.

Please note that elective courses require 30 hours minimally of live instruction and core coursework require 60 hours minimally of live instruction.

ENGLISH

English I: Students will read a range of genres in English Language Arts including novels, drama, poetry, creative nonfiction, journalism and fiction, exploring techniques authors employ using language and structure to tell their stories. Students will also practice organizing their responses and ideas in the form of essays, reports and creative writing, developing their voices as writers.

English II: In this continuation of English I, students will hone their analytical reading, writing and thinking skills through a variety of texts in a variety of genres according to a customized theme. Themes could include (but are not limited to): The American Dream, Dystopias & Apocalypses, Nature & Technology, Ethical Dilemmas.

English III: Building on English II, students will hone their analytical reading, writing and thinking skills through a variety of texts in a variety of genres according to a customized

theme. Themes could include (but are not limited to): The American Dream, Dystopias & Apocalypses, Nature & Technology, Ethical Dilemmas.

English IV: In this continuation of English III, students will hone their analytical reading, writing and thinking skills through a variety of texts in a variety of genres according to a customized theme. Themes could include (but are not limited to): The American Dream, Dystopias & Apocalypses, Nature & Technology, Ethical Dilemmas.

Honors Classes

- English 10
- English 11
- English 12

AP-Level Topics

**All AP-level courses follow the curriculum outlined by the CollegeBoard.*

- English Language & Composition
- English Literature & Composition
- Seminar

Elective Topics

The Art of the Novel: Students will learn the fundamentals of novel-writing and begin laying the groundwork for completion of their own novel.

The Art of the Short Story: Students will learn the fundamentals of short story-writing and practice writing their own short stories.

Creative Nonfiction: Students will learn the craft of creative nonfiction through reading and writing practice.

Blogging & Journalism: Students will learn the fundamentals of blog writing & content promotion and in addition will receive an introduction to journalistic standards and best practices.

Screenwriting: Students will learn the fundamentals of screenwriting and practice writing their own screenplay.

Film Studies: Students will get an introduction to film analysis and criticism and learn about the history of film.

Lyrics & Songwriting: Students will study the art of writing lyrics for their own songs through studying the lyrics and album narratives of other songwriters.

Introduction to Poetry: Students will learn the fundamentals of poetry through reading and writing practice.

Speech Writing & Public Speaking: Students will learn the fundamentals of speech writing and practice delivering presentations with the goal of reducing anxieties around public speaking.

HISTORY

Ancient Civilizations: Students will explore the beginnings of human civilization and the major formative events in history that have shaped the world since ancient times all the way to the middle ages. Historical explorations in this course include readings about the geographic, environmental and biological changes that have contributed to distributions of power worldwide.

Economics: Students will learn the fundamental concepts of economics, from micro to macro. By the end of the course they will better understand how the market functions and see the world through the perspective of an economist.

Ethnic Studies: Honoring the historical legacy of social movements and mass struggles against injustice, this course aims to educate students to be politically, socially, and economically conscious about their personal connections to local and global histories.

Modern World History: Students will explore the major formative events in history that have shaped the world since the middle ages, including intellectual trends, revolutionary movements, social interactions, political ideologies, economic theories and geographical impacts.

Social Justice: Beginning with an overview of the U.S. Constitution, the three branches of government, and the system of checks and balances, students will engage in understanding how different social movements have shaped and been shaped by government policy over time

US History & Civics: Students will learn the history of America starting from pre-colonial times through the 1980s. This course also provides an overview of the political systems of American government and its history.

Women in History: Students will explore major historical changes influenced and inspired by women. Content will be taught through women-centered and women-written primary and secondary sources, allowing students to approach history through a woman-centered lens of engagement.

World History: Students will engage in global history to the present. Considering how a

modern system of communication and exchange drew peoples of the world into an increasingly complex network of relationships, including exerting great military and economic power from Europe and the United States.

Honors Classes

- Geography
- United States history
- World history

AP-Level Topics

**All AP-level courses follow the curriculum outlined by the CollegeBoard.*

- US Government & Politics
- World History
- Human Geography
- United States History

Elective Topics

Topics in Current Events: Students will examine current events as they relate to history through reading, writing and discussion.

History of Science or Math: Students will explore the history of science or math (or a particular topic in either of those subject-areas) through reading, writing and discussion.

Introduction to Philosophy: This course provides students with an overview of philosophy and the nature of philosophical inquiry. Students may choose to customize this course in order to focus on a particular subject under the heading of philosophy, including the philosophy of science, religion, bioethics or ethics.

Projects in Citizenship: Students will work with an advisor on an independent project involving community service.

World & Regional Geography: Students will learn the fundamentals of geography, cartography and dive deeper into the ways geography has impacted historical events.

Ethnic Studies: Students will study the social, political, economic and historical perspectives of America's diverse racial and ethnic groups. This course may be customized to focus on one particular racial or ethnic group (i.e. black history, Chicano history, etc.) or provide a more broad overview.

Introduction to World Religions: Students will study world's religions -- including Indigenous religions around the world, Hinduism, Buddhism, Taoism, Abrahamic Religions, and some of the newer religious followings to have emerged within the past 200-300 years. Students will discuss historical background, the fundamental beliefs and concepts of each, and some narratives of the experiences of individual practitioners.

MATHEMATICS

Algebra I: Students will learn the basics of algebra I, including foundational concepts, solving equations & inequalities, units of measurement, linear equations & graphs, inequalities, functions, sequences, exponents & radicals, quadratics & quadratic functions, and irrational numbers.

Geometry: Students will learn the basics of geometry, including foundational concepts, transformations, congruence, similarity, triangles, solid geometry, analytic geometry, and circles.

Algebra II: Building upon prior learning, this course will explore the basics of algebra II, including interpreting and transforming functions (linear, absolute value, quadratic, polynomial), complex numbers, matrices, inequalities, factoring polynomials, and more.

Trigonometry: Students will learn to solve geometric problems using Law of Sines, Cosines, and area formulas and use the basic trigonometric identities to verify other trigonometric identities and to simplify complex expressions. They will use real-world applications to introduce the definition, application, and visual representation of functions.

Pre-Calculus: The foundation of calculus will be explored in this class. Studying the properties and graphs of trigonometric, rational, inverse, exponential, polynomial and logarithmic functions, students will build upon prior learning to strengthen their understanding of inequalities, polar coordinates, vectors, sequences, series and limits.

Calculus AB: Students will learn a variety of topics in calculus, such as limits, differentiation and integration of functions. Students will find derivatives and evaluate finite and infinite limits graphically, numerically and analytically.

Calculus BC: Students will learn a variety of topics in calculus, such as functions and graphs, limits, continuity, derivatives and differentiation, composite, implicit and inverse functions, contextual applications, analytical applications, integration and accumulation of change, parametric equations and polar coordinates.

Statistics: Students will learn the fundamentals of exploratory analysis, data collection, probability, sampling distributions, inference for quantitative data and more.

Honors Classes

- Analysis

- Statistics
- Calculus
- Geometry
- Algebra

AP-Level Topics

**All AP-level courses follow the curriculum outlined by the CollegeBoard.*

- Statistics
- Calculus AB
- Calculus BC
- Computer Science A
- Precalculus

Elective Topics

History of Math: Students will learn more about the historical foundations of math through articles, literature and discussion.

Interdisciplinary Projects (Applied Math): Students will apply the fundamentals of their required coursework to real world situations.

Logic & Math Games: Students will explore math through logic and math games, solving new puzzles every week.

SCIENCE

Biology & Lab: Students will study the basics of biology, including foundational concepts, cells and cell processes, DNA, genetics, evolution, viruses & bacteria, classification & taxonomy, and the science of plants & animals. This course includes a lab component.

Chemistry & Lab: Students will learn the fundamentals of chemistry including the periodic system, atoms, molecules and ions, stoichiometry, atomic structure and bonding, gases, liquids and solids, properties of solutions, energy, acids and bases, and organic chemistry. This course also includes a lab component. This course also includes a lab component.

Environmental Science: Students will use their understanding of new science concepts to: examine ways to make responsible decisions about one's health and the environment; enhance critical and process thinking skills; develop an appreciation of the cultural significance of the environment and environmental practices across space and time; and engage in a thoughtful manner with larger issues of societal responsibility and social justice in response to environmental threats. This course also includes a lab component.

Marine Biology: Students will be introduced to three subfields of Marine Biology: chemical and physical features of the ocean, organisms of the sea, and marine ecosystems. Students will explore these phenomena first hand, participating in labs and field studies and use photography, film, audiobooks, and scaffolded reading of academic literature to further investigate the course content.

Physics & Physics Lab: Students will learn the fundamentals of physics including the study of motion, energy, heat, radioactivity, sound, light, electricity, magnetism, relativity and cosmology. This course includes a lab component.

Neuroscience & Psychology: Exploring how the brain works on a neurological level, students will develop their understanding of the structure and function of the nervous system, and how changes in the brain's systems can cause neurological conditions and disorders. This course will include some readings into the history of psychology as well.

Physiology: Students will explore the science behind how different animals have adapted on

a physiological level to survive in their environment. This course will focus mainly on vertebrate physiology and includes a lab component.

Honors Classes

- Biology
- Chemistry

AP-Level Topics

**All AP-level courses follow the curriculum outlined by the CollegeBoard.*

- Chemistry
- Biology
- Psychology
- Environmental Science
- Computer Science Principles
- Physics 1
- Physics 2
- Physics C: Electricity & Magnetism
- Physics C: Mechanics

Elective Topics

History of Science: Students will explore the foundations of science starting from ancient times through the enlightenment. This course may focus on a primary scientific topic, such as chemistry, biology or physics, in order to pair with the core science class the student is taking.

Introduction to Computer Science: Students will learn the fundamentals of computer science through designing their own games, art and digital stories. This course focuses primarily on Python.

Environmental Studies: Students will learn the fundamentals of environmental studies through readings and case studies covering topics such as resource management, clean energy, and climate change.

Nutrition: Students will dive deeper into subjects in biology as they relate to topics in human health and nutrition. This course will include a combination of anatomy and physiology to explore why humans are what we eat, and how we can eat to maximize what we are.

The Chemistry of Food: Students will explore how chemistry applies to the worlds of baking, fermenting, smell and taste. They will dissect and analyze food and its properties.

Botany: Students will dive deeper into subjects in biology as they relate to topics in botany, including the anatomy and ecology of plants. This course will also incorporate relevant historical readings for students to learn about the geographical and historical components of botany, in addition to the scientific.

Biotechnology: Students will dive deeper into subjects in biology as they relate to topics in biotechnology, including micropipetting techniques, DNA analysis, gel electrophoresis and more. This course will also include readings and discussions of ethical considerations as they relate to biotechnology.

Sound & Acoustics: Students will dive deeper into the science of sound and acoustics, exploring the physics behind music through reading, discussion and hands-on projects. This course is best paired with physics as it incorporates the science behind sound waves, decibels, harmonics, and the doppler effect.

Introduction to Robotics: Students will learn the fundamentals of robotics through designing and programming their own robot. This course may also include associated

readings about the scope of robotic applications, the ethics surrounding robots, and the significance of robots in culture.

Engineering & Technology: Students will explore topics in engineering and technology, and learn the process of combining science and technical skills to seek solutions to the world's problems. In addition to completing hands-on projects, students will also develop important foundational literacy skills in the systems and histories of invention and innovation.

Astronomy: This course provides a survey of fundamental topics in Astronomy, including planetary science, stellar and galactic evolution, and cosmology. In addition to exploring the physical science basis of astronomy, it draws on concepts from anthropology and history to place space study and exploration in a historical and societal context. AP Physics and Calculus are not required, but can be integrated into many of the units if taken simultaneously.

Kinesiology: Using prior knowledge, students will dig into the mechanics of movement, including analyzing motivation, barriers, and other factors at play. Exploring anatomy and physiology, human performance and biomechanics will be taught in addition to laws and concepts of physics. Research, collaborative projects, and connections to everyday life will be core components.

Zoology: Students will explore topics in zoology, including a deep dive into the subjects of morphology and systematics both in vertebrates and invertebrates.

ARTS

Two years of arts courses are required in order to graduate, which can be completed during any of a student's four years. Please note some courses may require additional fees for software & other materials.

Art Foundations: Students will learn the fundamentals of aesthetics, art criticism, art history and studio production through readings, hands-on projects in a variety of mediums and discussion. This course culminates in a portfolio evaluation and final project in the medium of the student's choosing.

Drawing & Painting: This course will provide students with both numerous opportunities to explore a variety of drawing and painting techniques, as well as the art historical basis behind the techniques and mediums studied and current artist practices by contemporary artists.

Introduction to Graphic Design: Students will explore the principles of design, color theory, typography, logo design and page layout through readings, discussion and practice. This course combines a high-level approach to design theory with a hands-on introduction to necessary software.

Website Design & Branding: Students will learn the basics of web design (HTML and CSS) and branding through creating their own live homepages. This course requires students to put what they're learning into practice by creating a simple website for themselves based on their interests and hobbies.

Film Studies and Filmmaking: Students will learn the basics of filmmaking through studying films, readings, discussions, and filmmaking practice. This course combines a high-level approach to film theory with a hands-on approach to necessary software.

Podcast Creation: This course will help students turn their idea for a podcast into a reality, providing support in the areas of both storytelling and technical assistance around how to best record and edit for sound quality.

Digital Photography: Students will learn the fundamentals of digital photography, including composition, lighting and image editing. This course culminates in a portfolio evaluation based on the student's chosen interest, whether they aim to pursue commercial, architectural, fine art, editorial or documentary photography.

AP-level Topics

**All AP-level courses follow the curriculum outlined by the CollegeBoard.*

- Art History
 - Drawing
 - Music Theory
 - 2D Art and Design
 - 3D Art and Design
-

LANGUAGES

High School students at PacPrep must complete at least two years of language courses in order to graduate, which can be completed during any of their four years at the school.

Course options include:

- American Sign Language I, II, III
- Spanish I, II, III
- Latin I, II, III
- French I, II, III
- Italian I, II, III
- German I, II, III
- Chinese I, II, III
- Japanese I, II, III

AP-Level Topics

**All AP-level courses follow the curriculum outlined by the CollegeBoard.*

- French
 - Spanish: Literature & Culture
 - Spanish: Language & Culture
 - Chinese
 - Japanese
 - Latin
-

HEALTH

PacPrep students are required to demonstrate completion of three semester-long health courses. Students generally take one course in sixth grade, one in eighth grade, and another between ninth and twelfth grades.

- Topics at the high school level include: nutrition and physical activity; growth, development, and sexual health; injury prevention and safety; alcohol, tobacco, and other drugs; mental, emotional, and social health; and personal and community health.
-

PHYSICAL EDUCATION

PacPrep requires two years of physical education accepted through evidence of weekly dedication to the following options:

- Any kind of dance
- Movement (pilates, yoga, stretching, etc.)
- Weight lifting/training
- Team sports or class workouts
- Swimming
- Jogging, walking, hiking, or biking