



# **GATEWAY HIGH SCHOOL 2009-10**

## **ELECTIVE AND ADVANCED**

### **COURSE OFFERINGS**

#### **Table of Contents**

<i>Arts</i> .....	2
<i>Humanities</i> .....	3
<i>Mathematics</i> .....	4
<i>Sciences</i> .....	5
<i>Spanish</i> .....	6
<i>Others</i> .....	6-7

# Arts

## **Drama 2 (10th grade UC requirement elective, available to 11<sup>th</sup> and 12<sup>th</sup> graders as well)**

Drama 2 provides students with a complete and meaningful theater experience. From the theory behind dramatic performances to the hands on experience of creating a production, students master important conceptual and practical theater skills. Each quarter the students progressively immerse themselves in four essential theater arenas – writing, directing, designing, and acting. Additionally, they reflect on the larger context of their relationships to each other, the art of theater, and the larger cultural impact that drama can have on society. The course culminates with a series of performances to demonstrate the students’ mastery of both the content and learning process.

## **Visual Arts 2 (10th grade UC requirement elective, available to 11<sup>th</sup> and 12<sup>th</sup> graders as well)**

This course provides students with experiences in different media and modes of figuration. It builds upon the skills taught in the Foundations of the Arts, expands the students’ aesthetic experiences and facilitates their mastery of different forms. Projects include, but are not limited to, composite portraits, comic book illustrations, papier maché, clay, installation art, and conceptual art. Prerequisite: Fundamentals of Art.

## **Video 1 (Available to 10<sup>th</sup>-12<sup>th</sup> graders)**

Video introduces students to experimental methods of video production defined in three categories: personal, appropriated and abstracted. In the personal category, artists turn the camera on themselves to record performances or relate personal experiences. In the appropriated, artists combine their video with found imagery or work solely with found footage abandoning the camera all together. In the abstract, artists create non-linear experiences through the use of montage or give movement to traditional art elements of line, color and form. As the course continues, especially if students take both semesters of this course, the course emphasizes independent inquiry and critical analysis.

## **Visual Arts 3 (Available to 11<sup>th</sup> and 12<sup>th</sup> graders)**

Visual Arts 3 is for students who have a serious interest in art. Students continue to develop their technical skills while enhancing their critical and aesthetic criteria. Long-term individual projects are required as well as participation in group critiques. Prerequisite: successful completion of Visual Arts II and approval of Mr. Olsen.

## **Vocal Class (Available to 10<sup>th</sup>-12<sup>th</sup> graders)**

Gateway is hoping to reintroduce a vocal class (choir) for the 2009-2010 school year. If you like to sing – whether you have previous experience or not – sign up! The vocal class will perform music chosen from various eras of musical history including: modern, 20<sup>th</sup> century, and earlier times, including American and international music. While learning the techniques of rehearsal and performance, students will study the songs through a cultural and historical context, gaining a deeper understanding of music in all its diversity and commonality. Students will perform at Gateway and beyond.

## **Jazz Studies (Available to 10<sup>th</sup>-12<sup>th</sup> graders)**

Gateway is hoping to start a jazz studies class for the 2009-2010 school year. The class will provide basic instruction in jazz-related rhythm, tone, style, concept, listening skills, and improvisation. The ultimate goal of this ensemble is to give interested students an opportunity to study and perform jazz ensemble literature and build their skills for other genres including rock, hip hop, etc. The class will take advantage of the rich jazz heritage in our local neighborhood (the Fillmore Jazz district.) Students will perform at Gateway and beyond.

# Humanities

## **Creative Writing (Available to 10<sup>th</sup>-12<sup>th</sup> graders)**

Creative Writing is an elective course for students who are motivated to write. We will experiment with poetry, short stories, and other forms of creative expression. The class is a workshop; students will use class time to hone their skills, to develop polished pieces, and to critique their own and each other's work. Students will also explore the process of publishing their work through a variety of avenues.

## **Advanced Placement US History (Available with approval to 11<sup>th</sup> graders; co-requisite of Honors American Literature)**

Advanced Placement US History is an 11th grade class designed to provide students with the opportunity to succeed on the Advanced Placement US History examination in May of the year they are enrolled. Consistent with the national curriculum of the AP US History program and with the format and make-up of the AP test, the course is a chronological survey of the political, social, and economic developments that have defined the US experience and the American people. Using course textbooks along with a series of primary source readings and historiographical essays, the course prepares the students to function as social scientists: they learn historical causation, thesis development and support through extensive expository writing, historical and social science research techniques, primary source analysis, interdisciplinary connections, and multicultural understanding. There is also an increased emphasis on social developments that reflects the realignment of the AP curriculum in recent years. In order to enroll in this course, students must complete an application process, demonstrate a strong interest in history during their previous Humanities class, and get a teacher's recommendation.

## **Honors American Literature (Available with approval to 11<sup>th</sup> graders; co-requisite of AP US History)**

Honors American Literature is a rigorous exploration of American literature through four themes: The Outcast in the American Consciousness; The American Dream, Nightmare, or Something in Between; The Search for the Self; and Redemption, Resilience, and Resurrection. Using various pieces of literature, students will learn to discover meaning by being attentive to language, image, character, action and the various techniques and strategies authors use to evoke responses from readers. Students will also explore and analyze movements within American Literature, such as the Transcendentalists and the Beats, and begin to use Literary Theory to analyze texts. Students will read a variety of texts, including short stories by Jhumpa Lahiri and Junot Diaz, poetry by Mary Oliver and e.e. cummings, essays by James Baldwin and Ralph Waldo Emerson, and novels such as F. Scott Fitzgerald's *The Great Gatsby* and Zora Neale Hurston's *Their Eyes Were Watching God*.

## **AP English (Available with approval to 12<sup>th</sup> graders)**

Advanced Placement English Literature and Composition is a college level course taken in place of English 12 during senior year. The class focuses on skills and content addressed in college English classes while incorporating strategies that are useful in taking the Advanced Placement Examination in the spring. Students focus intensely on literature specific skills while exploring major works and forms from both the traditional English canon and a wide range of American and world literature. There is particular emphasis placed on analysis of poetry, drama, and fiction in both written and oral arguments. Writing is major focus of the class and students will be able to quickly and completely analyze challenging literature in a variety of mediums. Students are expected to read extensively both in class and on their own.

# Mathematics

*All classes must be completed by years, students may not take 2nd semester only of a course.*

*\*Note: Students may take Geometry and Algebra 2 concurrently with an Algebra 1 grade of A- or better and recommendation by the current teacher.*

## **Algebra 2 Honors (Available with approval instead of Algebra 2)**

The honors course covers the same topics as Algebra II in more depth and at a faster pace. Students are asked to do a fair amount of independent learning and are expected to have a desire to put in extra time as well as possess superior skills of symbolic manipulation. Additionally, topics such as radical functions and trigonometric functions are studied in Honors Algebra II. Pre-requisites: Recommendation from the current teacher.

## **Pre-Calculus (Available after completing Algebra 2)**

This course is a unified overview of all the major function families, including a rigorous treatment of the circular functions and their inverses. Emphasis is placed on function transformations and the interplay between algebraic and graphic solutions of problems. Conic sections, sequences, and probability are also studied. Applications of each type of function are included, as well as a month long introduction of Calculus. The graphing calculator is used heavily throughout the course. This course can also be taken as an elective, beyond Gateway and UC/CSU requirements. For many colleges, a fourth year of mathematics is strongly recommended and this class will help prepare students for college mathematics. Pre-requisites: Successful completion of Algebra II with a C- or better and recommendation from the current teacher.

## **Pre-Calculus Honors (Available with approval instead of Pre-Calculus)**

The honors section of this course covers the same content of Pre-calculus, but at an in-depth and accelerated pace. Additional topics related to the Pre-calculus curriculum may also be studied, in particular limits and derivatives. Pre-calculus Honors is designed to thoroughly prepare students for AP Calculus. This course can also be taken as an elective, beyond Gateway and UC/CSU requirements. For many colleges, a fourth year of mathematics is strongly recommended and this class will help prepare students for college mathematics. Pre-requisite: Completion of Algebra II with an A- or better or Algebra II Honors with a B- or better, and recommendation from the current teacher.

## **Advanced Placement (AP) Calculus (Available with approval after completing Pre-Calculus Honors or Pre-Calculus)**

AP Calculus is a college math course taught in high school. Students should be prepared for a fast pace and significant work outside of class. Major topics include analysis of graphs, functions, limits and continuity, derivatives, definite integrals, differential equations, and mathematical modeling. Students use graphical, numerical, algebraic, and verbal reasoning in order to connect concepts and support answers. The goal of this course is to prepare students for the AP Calculus AB exam and future mathematic studies. Students who wish to take the AP Calculus BC exam may do so but must study additional topics on their own. Pre-requisites: Completion of Pre-Calculus with a B+ or better or Pre-Calculus Honors with a B- or better, and the recommendation from the current teacher.

# Science

## **Environmental Science (Available to 10<sup>th</sup>-12<sup>th</sup> graders)**

Environmental Science is a fun course about how everyone, even you, impacts earth's ecosystems. You will learn how all ecosystems, starting with the Bay Area, are interconnected with other ecosystems and what makes them function. You will understand what is causing global warming and what we can do about it. Water and air pollution from chemicals, factory smoke and car exhaust is getting worse in some areas of the world and better in others and you will learn why. The human population keeps growing exponentially and the way we convert land for human use has killed off many species of animals, and you will learn what can be done about that. Forms of energy such as solar cells, wind turbines, and hydrogen hold the key to a future where gasoline will be too expensive for most people to afford, and you will actually do hands-on experiments with these renewable energy sources of the future. Also, why has industrial hemp been illegal to grow in the US since 1937 when it could provide so much fiber for clothes, food for people and jobs and be good to the soil? You'll study the inside story and see why a recent court case is paving the way for hemp to become legal to grow. We'll use labs, field trips, Google Earth, videos and listen to music to deepen our perceptions of environmental problems and solutions. Concurrent or previous enrollment in Biology is required.

## **Honors Chemistry (Available with approval instead of Chemistry in 11<sup>th</sup> grade)**

Honor's chemistry is for the student interested in studying science in college. It is a rigorous study of chemical principles. The approach is both mathematical as well as conceptual. Atomic structure, the periodic table, chemical bonding, chemical equations, stoichiometry, the gas laws, solutions and reaction processes are some specific areas of study. Lab skills will be developed to reinforce the understanding of chemical concepts and principles. Come prepared to learn and think independently. You must have earned a B or better in Biology to be eligible for consideration.

## **Physics (Available to 11<sup>th</sup> and 12<sup>th</sup> graders)**

We will study the nature of matter and energy and how they are related. Concepts covered will be motion and forces, conservation of energy and momentum, waves, and electric and magnetic phenomena. This course will emphasize **conceptual understanding**. Students will apply their knowledge by performing qualitative and quantitative hands-on experiments. You **must** have taken or will be taking Algebra II. Note: Physics is an elective course for 11th or 12th graders. This course fulfills the UC/CSU requirement in physical science.

## **Honors Physics (Available with approval to 11<sup>th</sup> and 12<sup>th</sup> graders)**

We will study the nature of matter and energy and how they are related. Concepts covered will be motion and forces, conservation of energy and momentum, waves, electric and magnetic phenomena, nuclear and atomic physics, and time permitting... relativity. This course will emphasize conceptual understanding through problem solving. Students will apply their knowledge by performing qualitative and quantitative hands-on experiments. Students must have taken or will be taking Pre-Calculus. This course fulfills the UC/CSU requirement in physical science.

## **Biotechnology (Available to 11<sup>th</sup> and 12<sup>th</sup> graders)**

The Biotechnology class teaches the fundamental skills and helps develop attitudes essential for work in a molecular biology lab. Much of our time is spent doing "hands on" experiments or activities. We also spend a significant amount of time studying genetics and molecular biology. Students will contemplate ethical and current issues such as reproductive options, stem cell research, and genetically modified organisms (GMOs). The culminating event of the course is a day-long trip to a biotechnology company or agency. This course fulfills the UC/CSU requirement in biological science.

## **Advanced Placement Biology (Available with approval to 12<sup>th</sup> graders)**

AP biology is the equivalent of a first year college biology course. We will study cell biology and physiology in detail. Students have the opportunity to earn college credit based on their performance on the AP exam. Students wishing to take AP biology must have earned a grade of B or higher in biology and chemistry. Students must also get a recommendation from their current science teacher. Students should be aware that the course involves large amounts of independent work, labs, and lectures.

# Spanish

## **Spanish 3 Honors (Available with approval after completing Spanish 2)**

The principal difference between Spanish III and Spanish III Honors is that in this course the student will work at a faster pace and have a workload of higher intensity. The student is expected to be proficient in all basic Spanish grammar, to speak on basic general topics, and to write 100 words essays. Students read short stories, newspaper articles and poetry from Spain and Latin American. Class is primarily conducted in Spanish. This course prepares students for the Advanced Placement Spanish Language Exam offered in Spanish 4H / AP. Prerequisites: Successful completion of Spanish II with a grade of B or better, or equivalent as determined by placement examination or interview AND approval of instructor. Students will be required to complete Summer course work.

## **Spanish 4H/Advanced Placement Spanish Language (Available with approval after completing Spanish 3 Honors)**

This class prepares the advanced student of Spanish for the Advanced Placement Spanish Language Examination. This course refines conversational skills through discussions on current events and the use of the target language at all times. It provides a comprehensive grammar review. The student will read and analyze selected works in Spanish and Latin American literature in all genres. Prerequisites: Successful completion of Spanish III Honors with a grade of B or better, equivalent as determined by a placement examination and interview for Spanish III students AND approval of the instructor. Students will be required to complete Summer course work.

## **Advanced Placement Spanish Literature (See approval requirements below.)**

This class prepares the student for the Advanced Placement Spanish Literature Examination prepared by the College Board. The student will study in depth 57 pieces of literature from all different genres of the Spanish-speaking world. The student is expected to read and analyze all pieces of literature and to be able to write coherent essays at a college level. Prerequisites: Successful completion of Heritage Speaker 1 and 2 with a grade of B or better, the successful passing of the Advanced Placement Spanish Language exam with a 4 or better AND the approval of the instructor. Students will be required to complete summer course work.

# Others

## **Peer Resources (Available with approval to 10<sup>th</sup>-12<sup>th</sup> grade students)**

This course is designed to train students in peer counseling, conflict mediation, and peer education for wellness related issues. Topics covered in this course will include active communication, building teamwork, listening skills, conflict mediation, drug and alcohol awareness, reproductive health topics, and decision-making skills. Students will receive training from community groups that specialize in these topics and upon completing a six-week training period students will assist in the Student Support Office a minimum of an hour a week. Tasks will include conflict mediation, mentoring younger students, and organizing school events for wellness awareness (drugs, tobacco, reproductive health, nutrition and exercise, stress management, youth issues, anti-violence). Students will plan and present a minimum of two health/wellness awareness events per year (assemblies, evening programs, lunch meetings, hallway displays). Students will also help with 9<sup>th</sup> grade orientation in the fall, so they must be available during the week of August 17<sup>th</sup> and on the day of orientation. The course will be offered for 1.5 credits and will be pass/fail.

## **Future Leaders Institute (FLI) (Available with approval to 10<sup>th</sup>-12<sup>th</sup> grade students)**

The Future Leaders Institute (FLI) is a rigorous, year-long class for students who are passionate about creating

lasting social change in the world. Students in FLI learn about issues facing San Francisco and our broader society (including homelessness, poverty, violence, etc.) and also learn about organizations that are making a difference. Over the course of the year, students volunteer in various locations and design and implement service projects based on their own interests and ideas. Through these projects, FLI students positively impact their communities, learn leadership skills and fulfill community service requirements.

**TechCenter Assistant (Available with approval to 10<sup>th</sup>-12<sup>th</sup> grade students)**

TechCenter Assistants will work with the Technology Director to maintain and operate the School's technology program. Only 2 TechCenter Assistants are sought, one for MWF, and one for MTTh. TechCenter Assistant's must be independent workers who have good communication skills and are willing to learn. Prior experience troubleshooting technology equipment is preferred, but not required. Primary duties include maintenance of the student laptop cart, networking, software updates, and first-response to faculty & staff support requests, etc.

**Teacher's Aide (Available with approval to 10<sup>th</sup>-12<sup>th</sup> grade students)**

Students will work with teacher's to assist them in their daily operations of the classroom. Tasks required could range from helping prepare for a particular class, to teaching a certain lesson. Students interested in learning more about a particular discipline or exploring teaching as a profession are encouraged to enroll.

**Office Aide (Available with approval to 10<sup>th</sup>-12<sup>th</sup> grade students)**

As an office aide, you have the unique opportunity to add to your resume while simultaneously earning course credit. Students will work either in the Main Office or Student Support Office to greet visitors, answer phones, and help with other office-related tasks. Responsible and personable students are encouraged to apply for this opportunity to gain workplace skills and assist the Gateway community in its daily operations.