Forensic Chemistry

Do you enjoy solving mysteries? Are you fascinated by television shows like CSI, House, and Mythbusters? Then you should enjoy this inquiry-based course in forensic chemistry. You will be able to explore various laboratory techniques that will help you to identify unknown substances. Topics discussed in this course will include paper chromatography, flame tests, acid-base chemistry, and precipitation reactions. You will also learn about the analysis of fingerprints, blood, and DNA. You will have the opportunity to collect and analyze evidence. If you like doing hands-on chemistry activities and exercising your brain, then this course is for you.

Fearless Poetry

"It is a leap of faith to put this in an open space, but I take a chance" -Louise Bourgeois

Do you love to write? Whether you are a seasoned poet or a complete beginner, this course will introduce you to the pleasures of reading and writing poetry. It will be both an introduction to the craft of writing poetry, and a means of inspiring and jump-starting our inherent creativity. We will follow the French American artist and sculptor Louise Bourgeois and leap out into the magic and the mystery of making art, into the challenging process of putting our thoughts and feelings out into open space. In our case, our first "open space" will be our workshop, where we will read and discuss each other’s poems, offering one another praise and constructive feedback. Through in class writing exercises and the reading of model poems, we will focus on generating new material and creating a supportive writing community. We will also learn vital revision techniques to help us ultimately make our work stronger.

Breaking the Mold: Fashion, Beauty and How We View Ourselves

What does it mean to be in fashion? What role do the fashion and beauty industries play in our everyday lives, and how we view ourselves and those around us? Season after season the fashion industry deems what it means to be beautiful and in style. Whether it is the Parisian runway of Chanel or the newest marketing campaign of H&M, the fashion industry spends millions of dollars in an attempt to get us to spend millions of dollars. This course will be an analysis of how we define fashion and beauty. Using Scott Westerfeld's Uglies as the basis for our discussion, we will analyze the ideas of beauty and fashion in our culture and the impact it has on our lives. We will look at how the idea of beauty has changed throughout time, as well as the marketing strategies behind the world of beauty and fashion. Other topics discussed will be the psychology behind both industries as well as topics such as body image, the evolving world of fashion blogs and advertising.

9th – 11th grade courses continue on next page:
Exploring Our World through Architecture

Have you ever wondered how the places we visit, live and go to school in are built and designed? Let’s challenge our minds and get our hands dirty as we take a closer look at the buildings that define our landscape. We’ll be practicing how to use our naturally curious brains to observe our built environment in a new way and look critically at how we experience buildings in our everyday lives. Through case studies of sites from around the globe, students in this course will learn how architects and planners consider topics ranging from engineering, history, environmental science to artistic design. Students will gain hands-on experience in developing their own design ideas by working collaboratively, building models, keeping sketchbooks, and exploring building materials and techniques. We’ll be using the tools of the architect to see how the subjects we study in school are more connected than they seem!

Music, Sound, and Moving Image

Why are zombie films still gross even when you’ve shut your eyes? Why is it hard to resist crying at big romantic scenes? Music and sound design have a profound effect on our perception of moving images. The right choices of music and sound can heighten the emotions of a scene, pushing audiences to feel happy, sad, or scared. Bad choices can turn serious moments into comic ones. In this class we will find out how music and sound design is created for film and television, and we will consider the consequences of the use of music and sound design in terms of storytelling, aesthetics, and psychology. We will also put ourselves in the shoes of sound designers, composers, and music editors by creating our own sound tracks.

Mock Senate

In our Mock Senate, you will adopt the persona of a sitting US Senator and play his or her role. You will learn your senator's political positions and will defend them to your fellow senators. You will have the opportunity to propose new legislation informed by current political issues, and you will have to defend it against your political opponents through committees and floor debates. You will gain some experience with the procedural system of the Senate, as well as some knowledge of the policies of current US Senators. Special emphasis will be given both to improving your persuasive strategies in speeches and debates and also to understanding the philosophical underpinnings of contemporary political ideas. Whether or not you are active in a mock senate, this class will provide new tools for your persuasive arguments.

Computer-Aided Mechanical Machine Design

Every day we have more and more machinery aiding out daily lifestyles. Ever wonder who designs these machines? How are the machines programmed? How much work and thought is required to construct one of these machines? In this class, students will have a brief introduction to the complexity and the programming requirements to make the newest machines a reality. Classes will begin with a short introduction to programming with Java in order to program a virtual robot to find an item in a maze. Students will then create mechanical robots and program them to find items on an obstacle board.