

SAINT ANN'S SCHOOL

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HIGH SCHOOL

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COURSE CATALOG

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2017-2018

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Dearest high schoolers,

What awaits you in this book is nothing short of an adventure in our own private Wonderland. As you peruse the courses within, I encourage you to think about which classes will inspire you and enrich your days, and what sort of explorations may help you see the world in a new way. And as you decide where next year will take you, be careful not to over-indulge – every adventurer needs time to take in the scenery.

Welcome to the edge of the rabbit hole. Jump on in.

Love,

A handwritten signature in cursive script that reads "Chloe". The signature is written in a dark ink on a light-colored, slightly textured background.

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# MINIMUM

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# GRADUATION

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# REQUIREMENTS

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ARTS	Four courses in the arts, preferably at least one in art, one in music, and one in theater
COMPUTER	No requirement, but students are encouraged to become comfortable with usage and applications of the computer
ENGLISH	Four years
HISTORY	Four years
LANGUAGE	Four years of language study
MATH	Four years, including Algebra 1, Geometry, and Algebra 2
REC ARTS	One course or the equivalent, or one interscholastic sport, per year
SCIENCE	Three years including one year of biology and one year of physical science

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# HIGH SCHOOL

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## COURSE CATALOG

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### 2017-2018

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# ART

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All classes meet one double period per week unless otherwise noted. **Note:** Although the descriptions for many of the art electives are general, it is the teachers' prerogative to be more specialized in their individual approaches. For instance, the painting and painting/drawing courses have several sections taught by different teachers in the department. Each teacher guides the curriculum through personal aesthetic passions and interests, while taking into consideration the experiential and technical abilities of each student in the class.

## ANIMATION

*(Tokmakova)*

Over the course of the year, each student will produce an animated film. Collaborations are also welcome. Students will write a script or explore a more abstract approach to storytelling, creating their own unique sets and characters from clay, paper cutouts, found materials, or drawings. We will use traditional stop-motion techniques to shoot our films frame by frame, using Dragon Animation software. During the editing stage everything comes together. The images can be layered or manipulated, and the soundtrack, including dialogue, music, audio effects, or narration can be added. No previous experience necessary.

## INTRODUCTION TO ARCHITECTURE & DESIGN 1

*(Rumage)*

This course introduces and explores some of the basic drawing systems used to communicate three dimensional architectural ideas within two dimensional formats (elevations, floor plans, isometric and axonometric). Students progress from representing simple three dimensional forms to drawing self-designed architectural structures and subsequently translating their architectural plans into scale models constructed from chipboard and a variety of materials.

## INTRODUCTION TO ARCHITECTURE & DESIGN 2

*(Rumage)*

This course is an extension of Introduction to Architecture and Design. The course will broaden the exploration of architectural concepts and model making, allowing students to gain greater confidence and fluency, while applying the various projection and mechanical drawing systems to specific design problems. This is an excellent course to prepare for the more rigorous Advanced Architecture and Design seminar.

## ADVANCED ARCHITECTURE & DESIGN

*(Rumage)*

(Please see Seminars)

## INTRODUCTION TO DIGITAL PHOTOGRAPHY

*(Poindexter)*

This is a photography course that explores image making through an entirely digital format. Along with using digital cameras, the course relies on the computer to refine and manipulate images that are then produced through a digital printer. No photography experience is necessary.

## ADVANCED DIGITAL PHOTOGRAPHY

*(Poindexter)*

Advanced Digital Photography builds on the ideas presented in Introduction to Digital Photography. Students will explore how to nuance their images to move beyond the real—to understand how to use light to generate a variety of visual, psychological, and conceptual effects. Class assignments pursue alternate approaches to the organization of information: maps, diagrams, indexes, and encyclopedias. Over the course of the year, two separate portfolios of photos will be generated (one for each semester). We will draw inspiration from master manipulators (such as Hiro, Jeff Wall, Thomas Demand, Ryszard Horowitz and Philippe Halsman), as well as more experimental images found in print advertising. A solid understanding of how to use an SLR camera in manual mode is required. **Prerequisite:** Introduction to Digital Photography

## DRAWING

*(Keating, Sassoon)*

In this class we investigate ideas about visual communication, using a variety of media and surfaces. Observation, perception, composition, and the language of mark-making are stressed. Students will work from still life, works of the Old Masters, models, and other sources. Using materials like pencil, charcoal, pastel, ink, watercolor, colored pencils, marker, and transfer techniques we will explore line, tonality, volume, and texture, as we gain rendering skills toward development of an expressive personal vocabulary.

## FAILURE: ART, PHILOSOPHY, AND CRITICISM

*(G. Smith)*

This course explores failure as the backdrop for creative endeavors in contemporary society. Students will engage in a variety of art projects focusing primarily on making drawings and videos, with other mediums added in where appropriate. Assignments might include self-portraits, making maps, or coming up with a performance in response to a text. As the year progresses, projects will become increasingly open-ended. Students will be encouraged to follow their own interests, and to develop their own ways of engaging with the mediums.

These projects will be informed by inquiry into texts by Plato, Socrates, Aristotle, Hegel, Nietzsche, Russell, Quine, Cage, Derrida, Nelson, Muñoz, and Halberstam. We will focus in particular on how central organizing ideas in Western culture (such as the existence of absolute truth, or religious belief) have become difficult to justify. This apparent failure of concepts that were once taken as bedrock might be felt as a profound loss, greeted as exhilarating opportunity, accepted as simply the way things are, or forcefully rejected. Certainly it will provide potent artistic fodder. As students work on their projects, failure is expected, as it would be with any creative endeavor. But also expected will be an increasingly thoughtful exploration of the

tangled spaces between purported absolutes and certainties. **Note:** This class will meet one single period and one double period per week.

## FIGURE DRAWING

*(Hillis, Tokmakova)*

This class involves drawing from the live model and includes anatomical exercises that will explore the skeleton, muscles and organs to convey an understanding of forms and shapes that make and influence our positions and motions. A goal within each drawing session is an attention to anatomy and proportion and to ways of describing contour and form through the study of light, shadow and movement.

## FIGURE DRAWING WITH EXTENSIVE STUDY OF THE HEAD AND FACIAL EXPRESSION

*(Arnold)* (4x per week)

In this course students will learn to draw the human figure from a live model, both dressed and nude. From short movement sketches to longer studies of a still model, students will explore the figure, including special studies of its hands and feet, using china ink, graphite, charcoal, oil sticks, etc. We will pay particular attention to the head. Students will learn to depict the head proportionally, from different angles, and in three dimensions. Drawing from a live model as well as from classical sculptures, they will learn to depict individual facial characteristics, creating a portrait. During the second semester, students will be ready to make stylized portraits (e.g. caricatures, cartoons, and anthropomorphized animals) as well as various realistic expressions. We will also explore drawing groups of interacting figures. This course will be demanding, requiring stamina, dedication, and a desire to learn how to draw realistically. Previous drawing experience is desirable but not necessary. **Note:** This class will meet two double periods per week.

## PAINTING

*(Arnold, Hillis, Lee)*

This course is an exploration, through a variety of painting media, of pictorial construction, color, composition, and conception.

## PAINTING INTENSIVE

*(Bellfatto, Keating)* (4x per week)

See Painting. Offered in an intensive format of two double periods per week. **Prerequisite:** permission of the instructor is required

## PAINTING & DRAWING

*(Keating, Hillis)*

An exploration of pictorial life—how drawing begins, its development, manifestation and transmutation. An alchemical approach to picture making: experimentation with content in a variety of styles and media toward the development of a personal vision.

## INTRODUCTION TO PHOTOGRAPHY

*(Giraldo)*

Learn to capture and share your view of the world through traditional photographic methods. In addition to class discussions and critiques, students learn the basics of composition and vi-

sual communication through slide show presentations of well-known and lesser-known photographers, assignments to be completed outside of class, and in-class exercises in the analog photographic process. Students will learn on 35mm manual cameras using black and white and color film.

## PHOTOGRAPHY 2: PERSONAL VISION

*(Giraldo)*

Already equipped with the basics of the analog photographic process, students will learn techniques in documentary photography, portraiture, and the use of natural and artificial light. The first part of the year will concentrate on technique and practical exercises along with the development of a project to be started in the beginning of the second semester. **Prerequisite(s):** Introduction to Photography, or equivalent experience in black and white photography and darkroom developing and printing

## PRINTMAKING

*(Lee)*

This is a broad course that combines various screen printing techniques with relief printing (linoleum, woodblock, and intaglio techniques). The premise is to evolve imagery from an understanding of the character of these processes.

## PRINTMAKING: POSTERS

*(Lee)*

This course is devoted to poster design and production. A historical survey of poster designs includes: Japanese 19th century playbills, Polish circus posters, Mexican revolutionary leaflets, rock posters of the sixties, and more. This course also works with the Theater Department to produce the posters for school productions throughout the year. Various printing techniques are explored.

## CERAMIC SCULPTURE

*(Bellfatto)*

Not a pottery course. We explore basic clay building techniques such as coil, slab and pinchpot to generate functional and non-functional sculpture. Various surface treatments are investigated: stain, slip, paint, and glazes. Students develop a body of work reflecting an eclectic variety of sources and themes: personal, historical, geometric and organic form, human and animal figure, narrative relief, and architecture.

## SCULPTURE

*(Reid IV)*

This class is an introduction to the rendering of three-dimensional form. We will focus on building ideas from conception to completion. Students begin projects by drafting a sculpture plan to serve as a construction blueprint throughout the process. Each project focuses on a different fabrication method: carving (subtractive), armature construction (additive), molding and casting (replicative). Joinery techniques such as physical and superficial connections, lap joints and butt joints are studied and implemented. Projects will be created using a wide selection of materials, including but not limited to: soap, concrete, modeling clay, chip-board, and wax.



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# COMPUTER

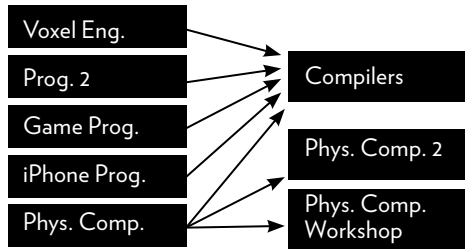
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We are surrounded by science fiction—portable computers, artificial intelligence, 3D printing, electronic games, online journals, instant reference books, genetic sequencing, cameras everywhere, nanotech, increasingly massive datasets—constant innovation with data processing, design, number crunching, and computer science. Our courses show students how to be more than just consumers or users: they will be independent creators on computers, able to control and help shape the tools of today and tomorrow. Using software that runs similarly on Mac, Windows, Unix/Linux, and tablet computers, our courses teach a range of topics including programming, graphics, circuitry, web, spreadsheet analysis, logic, and other skills that are useful for doing everything from analysis to artwork. Classes are full year and meet twice a week unless otherwise noted. Visit [tinyurl.com/sacc2017classes](http://tinyurl.com/sacc2017classes) for more information about any of these classes.

## No Prerequisites

- Soft Circuits
- 3D Model/Print
- Animation on Comp.
- Prog.1 or Prog.1 Intensive

## Classes After Prog. 1



## 3D MODELING AND PRINTING

*(The Department)*

3D printers are personal fabrication tools that are a part of an evolving modern world of technology that allows students to become producers, inventors and artists. Students will create, design, invent and prototype while efficiently and inexpensively taking their digital designs into the real world. Students will be able to easily understand the strengths and limitations of their work and will be encouraged to modify their designs, thereby participating in an iterative engineering design process. Students will learn various 3D modeling techniques and explore several 3D modeling software tools and packages.

## ANIMATION ON COMPUTERS

*(The Department)*

Learn about computer-aided methods of animation with frame-by-frame animation including the traditional walk-cycle project. Also use more advanced techniques including digital puppets within a 3D space, and special effects such as lightning and explosions. Additional projects may include stop motion, green screen projects, 3D movie titles (like the iconic Star Wars titles), music videos, and a final animated movie using techniques of the student's choosing. No prior experience is required, but attention to detail and perseverance are required!

## COMPILERS

*(Roam)*

Compilers turn English into computer code. Building a compiler is hard work, so this course is for all you serious programmers: let's give it a shot! We will use object oriented programming to build parse trees that interpret programs and emit byte-code or assembly language. We'll add the ability to recognize functions, user-defined types, and arrays. We'll optimize our byte code. We'll build interactive editors with syntax coloring and pop-up statement templates.

**Prerequisite:** two programming courses

## GAME PROGRAMMING

*(The Department)*

Designing games presents unique challenges distinct from the design issues of other interactive media. In addition to the user interface, one must consider story, culture, modeling, and implementation. This course will explore developing usable and engaging games, human computer interaction, thematic structures, graphic design, sound effects, and game aesthetics. The course will take into account the history of non-digital and digital games, role-playing, puzzles, interactive fiction, and 3D modeling. Students will plan and create games both individually and collaboratively using a variety of languages and tools such as Unity3D, Livecode, Javascript, Java, and Python. We'll explore the creative possibilities of game design and experience the beauty and logic of programming. **Prerequisite(s):** some programming experience or permission of the instructor

## IPHONE PROGRAMMING

*(The Department)*

Learn how to program with Swift, Interface Builder, and XCode on the iPhone and iPad's unix-based operating system. Understand the way the iPhone applications work and how to build them. Actively and creatively explore this new field of little computers using the iPhone as the main research platform. No iPhone required. **Prerequisite:** some programming experience or permission of the department chair

## PHYSICAL COMPUTING 1

*(The Department)*

Learn how to interact physically with a computer without using the mouse, keyboard or monitor. Move beyond the idea that a computer is a box or a system of information retrieval and processing. Using a microcontroller, a single-chip computer that can fit in your hand, write and execute interactive computer programs that convert movement into digital information. Work with components such as resistors, capacitors, diodes and transistors as well as integrated cir-

cuits. Through lab exercises and longer creative assignments learn how to program, prototype and use components effectively. Control motors and interpret sensor data, as well as explore advanced concepts in interface, motion and display. **Prerequisite:** some programming experience or permission of the department chair

## PHYSICAL COMPUTING 2

*(The Department)*

Students combine theory and practice to interface microcontrollers and transducers. We learn how to make devices respond to a wide range of human physical actions. Building on previous knowledge acquired in Physical Computing 1, we build projects from schematics, make programs based on class examples, and make interfaces talk to each other. Topics may include: networking protocols and network topologies; mobile objects and wireless networks of various sorts; digital logic building blocks and digital numbering systems. Students are involved in short production assignments and final projects, and create a digital portfolio to document their work and research. **Prerequisite(s):** Physical Computing 1 or permission of the instructor

## PHYSICAL COMPUTING WORKSHOP

*(The Department)*

Creating interactive work relies on building a relationship between the object and the viewer. By gathering information in the form of input, processing that into meaningful data, and outputting that contextually, new forms of engagement and interaction with an audience can be established. This class is for students who have prior experience with Physical Computing and would like the opportunity to develop their own project and spend time researching, testing, prototyping and documenting it. **Prerequisite(s):** Physical Computing 1 or permission of the instructor

## PROGRAMMING 1

*(The Department)*

Explore the science and art of computer programming. For students who want to create and modify their own computer software, this course uses the high-level programming languages Java (an internet-savvy version of C++) and Livecode (multimedia coding tool) to introduce the basics of computer control and interactive web sites. We use loops, variables, procedures, input, output, and branching decisions (with Boolean logic) to control graphics, sounds, and information. Expect to work with Java using the “Processing” tool to create animated color graphics that respond to key and mouse movement.

## PROGRAMMING 1 (INTENSIVE)

*(The Department)* (4x per week)

Explore the science and art of computer programming. Learn important problem-solving and design strategies like modularization and iterative design which can apply to both programming and non-programming environments. This intensive, four periods per week class is for students who want to master fundamental programming concepts which include loops, variables, procedures, input, output, conditionals and data structures. Assignments will allow students to control graphics, sounds, and data while also encouraging them to think creatively, reason systematically, and work collaboratively.

## PROGRAMMING 2

*(The Department)*

A continuation of Programming 1, for students who are becoming more confident in their ability to combine data types and complex computer routines. We use Java and Python (internet-savvy relatives of C++) and other languages to look more deeply at object-oriented programming: class definitions, inheritance, methods, fields, arrays, and collections. Large projects include writing an interactive, animated project with control windows and graphics. **Prerequisite(s):** Programming 1 or permission of the department chair

## VOXEL ENGINES

*(Poindexter)*

Imagine an entire world small enough to carry in your pocket. Are you with me? If you can imagine it, you are almost there. “Voxels” make this possible; they are not magic; they are, in fact, totally logical. Imagine the world is made of little chunks. These chunks are volumetric pixels or voxels. Voxel engines are used to represent 3D data in scientific applications and to create procedurally generated terrain in the game Minecraft. In this class, we will have one project for the whole year: to create a voxel engine that procedurally generates terrain from the ground up in Java. We will start by learning to make a single block out of a set of points in 3D space, to package these points as a mesh and to get them to show up on screen. From there, we will add the ability to change the appearance of blocks, build randomly generated surfaces out of clumps of blocks and add caves and biomes. As part of our efforts, we will encounter concepts and strategies that are useful in programming in general. Having a basic understanding of object-oriented programming is a prerequisite for taking the class. **Prerequisite(s):** Programming 1 or permission of the instructor

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# ENGLISH

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## WESTERN LITERATURE & THE ESSAY (9<sup>TH</sup> GRADE)

*(The Department)*

Ninth grade English might survey modern European and American literature, and/or introduce new authors from around the world, but Shakespeare, Sophocles, and poets from all periods keep permanent residence. Freshmen vigorously air their responses to literature, hone their essay skills, and experiment creatively throughout the year. Grammar and vocabulary exercises reinforce reading and writing skills.

## POETRY, DRAMA & THE NOVEL (10<sup>TH</sup> GRADE)

*(The Department)*

Sophomores encounter increasing demands on the quality of their thinking and writing, while we provide a widening background in nineteenth and twentieth century literature. Across the year students examine several genres in depth. The first term typically concentrates on drama and poetry, the second on short forms and the novel. Authors include Shakespeare and Faulkner, Camus, O'Connor, and Baldwin. In an additional class period each week, small groups of six to ten sophomores practice their analytic skills and work on individual writing problems.

## JUNIOR/SENIOR ELECTIVES

### AMERICAN LITERATURE BETWEEN THE WARS

*(Fodaski)*

The movies. Radio. The automobile. The Depression. A woman's right to vote. Communism. Psychoanalysis. The theory of relativity.

The years between the first and second world wars saw major political changes, advancements in technology, and new kinds of culture. The end of World War I marked both a tumultuous and a progressive time for the United States, though these changes brought with them many difficult and conflicting feelings: liberation, progress, and the advancement of the United States to a World power on the one hand; disorientation, fear, and groundlessness on the other. Our country engendered staunch isolationism and a wave of expatriatism simultaneously. In this era of confusion, chaos, change, and conflict, not surprisingly a lot of great art was created. We will examine the American literature of this time with a vigilant eye on history, persistently contextualizing our reading.

Authors will likely include, but are not limited to, Willa Cather (*One of Ours*), William Faulkner (*Soldier's Pay*, *The Sound and the Fury*), F. Scott Fitzgerald (*Short Stories*, *The Great Gatsby*), Ernest Hemingway (*A Farewell to Arms*, *The Sun Also Rises*), Zora Neale Hurston (*Their Eyes*

*Were Watching God*), Richard Wright (*Short Stories, Native Son*), and Katherine Anne Porter (*Short Stories*). In addition to these prose writers, we will examine poetry by such writers as Wallace Stevens, William Carlos Williams, Edna St. Vincent Millay, Ezra Pound, Hart Crane, H.D., E.E. Cummings, Countee Cullen, Claude McKay, and Langston Hughes, and we will most certainly read T.S. Eliot's long poem *The Waste Land*. Finally, we may read a play by Eugene O'Neill.

## FREEDOM AND BELONGING

(Rutter)

In an era of clannish nationalism, the liberal individual can seem newly precious. But is it in fact a source of the problem? Critics on the left and right have long argued that liberalism leaves us alienated from one another, that freedom is not happiness. And it does seem that there is a paradox to progress. Our world grows less violent, sexist, homophobic; we grow more anxious, addicted, and depressed.

Do we need tribes? It is too easy to fantasize about communal bonds in a mythical past. For many women and people of color, those bonds weren't metaphors. Still—might the new interest in safe spaces express a desire for community and belonging? Does our interest in organic food, data be damned, revive old notions of ritual purity? My own generation's consumer tastes—exposed brick, slow food, flannel—betray their own sense of pre-industrial longing.

We'll read the *Iliad* (Homer) and a few short pieces (Dinesen, Lahiri, Batuman) for images of life in traditional societies. Romantic poetry (Wordsworth, Keats) and philosophy (Rousseau, Emerson, Nietzsche) will allow us to track the emergence of a modern 'individual,' whom we'll encounter in crisis in *Notes from Underground* (Dostoevsky), *The Awakening* (Kate Chopin), and the 'Juliet' stories (Alice Munro). *On Beauty* (Zadie Smith) will rise to defend the individual in an age of identity while *Gilead* (Marilynne Robinson) will test Christianity as a moral counterweight. We'll read plenty of sociology, too.

## IT'S THE ECONOMY STUPID: MONEY AND POWER IN LITERATURE

(Kantor)

"Always be closing"

—David Mamet, *Glengarry Glen Ross*

Supposedly we marry for love and fight for God and country, but could it be argued that economic concerns drive everything from intimate relationships to global events? Emma Bovary thinks she is dying for romance, but what she really needs is a bigger bank account. Is Elizabeth Bennet joking when she tells her sister that she fell in love with Mr. Darcy "after I saw his house," or is she offering us a glimpse into what motivates her unexpected change of heart? If the latter, could you blame her? The very poor are, according to E.M. Forster, "unthinkable," and even the just-poor-enough are powerless: The cherry orchard is lost to creditors; El Hadji loses everything when he squanders his fortune attempting to cure his impotence; people around the globe suffer unspeakable conditions just to earn a few dollars.

But if poverty is synonymous with suffering, does economic power guarantee happiness? Or does wealth punish the colonizer as well as the colonized? Kurtz, sent to procure ivory in the Belgian Congo, goes mad. Despite his high salary and Princeton diploma, Hamid's Changez is seen as (and feels himself to be) an outsider. And in our own American present, some children in elite public and private schools struggle to survive the grueling pressures of their lives. What is the true price of wealth?

Time is of the essence, but we will seek to tackle as many of the following titles as we can: *Pride and Prejudice*; *Howards End*; *The Cherry Orchard*; "Sentimental Journeys;" *The Reluctant Fundamentalist*; *Glengarry Glen Ross*; *Xala*; *Worlds of Pain* (excerpts); *Madame Bovary*; "The Case for Reparations"; *Heart of Darkness*; *Nickel and Dime* (excerpts); *Topdog/Underdog*; "The Best Job in Town: The Americanization of Chennai, India due to outsourcing performed by firms like Office Tiger"; *The Communist Manifesto* (excerpts).

## LIFE OF THE NOVEL

(*Donohue*)

Nobody seems to care about the death of the cassette tape, much less the rotary phone, and yet for many years people have been announcing—with solemn looks on their faces—the “death of the novel.” Why is “the novel” such a big deal, and why are people so bothered about whether it’s dying? Why does the novel, rather than the epic or the play or the lyric poem, tend to dominate the reading lists of literature classes? And is it really not long for this world?

In this course we pursue a historical understanding of the novel’s development from the 17th century to the present. We begin with an excerpt from Cervantes’s *Don Quixote* (1605), often called the first modern novel; then we read Henry Fielding’s “comic epic in prose,” *Joseph Andrews* (1742), one of the earliest English novels. We spend most of the first semester in the 19th century, with Austen’s *Persuasion* (1817), Balzac’s *Le père Goriot* (1834), and Flaubert’s *Madame Bovary* (1857), arguably the most influential novel ever.

In the second semester we cross into the modern, with works by Virginia Woolf (either *To the Lighthouse* or *Mrs. Dalloway*, depending on students’ previous experience) and Vladimir Nabokov (*Pale Fire* or *Lolita*). After writing term papers, we finish the year reading novels by 21st-century writers drawn from the following list: Teju Cole, Karl Ove Knausgaard, Rachel Cusk, and Zadie Smith.

As occasional vacations from the main theme, throughout the year we read (and write about) several lyric poems.

## LITERATURE AND POLITICS IN THE 21ST CENTURY

(*Geiger*)

Getting political is nothing new. Writers have been doing that for ages. Look at Sophocles. Look at Octavia Butler. But what are writers doing today? What are they tackling? And what are they saying? In this class, we’ll read contemporary literature that touches on economics, gender, humanism, identity, immigration, nationalism, patriotism, populism, race, technology—on anything and everything we can think of. For that, we’ll probably turn to Adichie, Badiou,

Bandi, Beatty, Danticat, Díaz, Coates, Coetzee, Erdrich, Ferrante, Gay, Hosseini, Kang, Klay, Lee, Mbue, Nelson, Nguyen, Rorty, Shteyngart, Smith, Ward, Whitehead, Xilonen, Žižek, and more. But we really can't know just where we'll turn, especially since we'll do some choosing based on who's read what.

For term papers, students will work on self-chosen books (sometimes more than one).

## NASTY WOMEN

(Spencer)

Donald Trump's calling Hillary Clinton "nasty" during their final presidential debate wasn't without precedent. Since the beginning of the beginning, Eve has been blamed for the fall of man, and around the turn of the 16th century, Edmund Spenser dreamed up feminine monstrosities with oozing "dugs" and grotesque, cannibalistic spawn as the villains of his epic poem *The Faerie Queene*. It's the kind of nasty, monstrous representation that women have had to endure in literature and art for centuries, but French feminists in the 1970s would come to find empowerment in this abjection of the female body; Hélène Cixous famously called breast milk the "white ink" with which women wrote. And let's not forget the economic and social limitations women have had to (and continue to) navigate: writers and critics called unmarried women in the Victorian period "redundant" for outnumbering men, but we might just say they were "nasty."

Why are writers of all stripes drawn to the image of the nasty woman? What makes a woman "nasty"? We'll try to answer these questions by taking a tour of some of literature's nastiest women in texts both vintage and contemporary. Likely texts include *Pride and Prejudice* or *Emma* (Austen), *Madame Bovary* (Flaubert), *Nightwood* (Djuna Barnes), *The Sound and the Fury* (Faulkner), *Beloved* (Morrison), *The God of Small Things* (Arundhati Roy), *My Brilliant Friend* (Elena Ferrante), *Chelsea Girls* (Eileen Myles), and *Sphinx* (Anne Garréta). We'll read plenty of short stories and essays and zines by nasty women, too. We'll ask how all of these women find (or don't find) agency and power in spite of their nastiness. Finally, we'll explore some supplementary reading in feminist and queer theory as we think about our term papers – and as we collectively imagine more capacious and more nasty ways of living in a world that's committed to deadly, deadening purity.

## RUSSIAN LITERATURE

(Aronson)

"You too are an exile, I thought. You mourn for the broad open steppes where you have room to spread your icy wings. Here you feel stifled and constricted, like an eagle that cries and beats against the bars of an iron cage."

– Mikhail Lermontov, *A Hero of Our Time*

Since the late eighteenth century when Russian authors began to be translated into French, German, and English, Russian literature has moved and intrigued Westerners with its depth and subtlety. This course considers a number of the major figures in Russian literature—beginning in the first part of the nineteenth century with Russia's foremost lyric and narrative poet, Alexander Pushkin, and moving through the pantheon of Russian literary greats: Mikhail Lermontov,



Fyodor Dostoyevsky, Leo Tolstoy, Ivan Turgenev, Anton Chekhov, and Nikolai Gogol. There is also room in this course—depending on time and student interest—to read some 20th century Russian authors, such as Alexander Solzhenitsyn, Vladimir Nabokov, Mikhail Bulgakov, or Anna Akhmatova. This is indeed a weighty and wide-ranging enterprise that raises questions of the individual's place in society and the world, including the way women are viewed in Russian literature; the nature of truth and reality; the meaning of faith in God; and the role of the past in the present—to name a few.

## THERE'LL ALWAYS BE AN ENGLAND: MODERN BRITISH LITERATURE

(*Meslow*)

In 1900 England's power stretched for four million square miles; as the saying went, the sun never set on the British Empire. In 2017 even Scotland, its immediate neighbor to the north, has reclaimed its political independence, and with the popular vote to leave the European Union, England seems to be looking ever more inward. During the last century England coped with the ramifications of imperialism, survived two world wars, watched the rise of socialism, and struggled to uphold its monarchy. Even as its might abroad waned, the power of its language steadily gained momentum, becoming, indeed, the *lingua Franca*. How did the heirs to the literary tradition of Chaucer, Shakespeare, and Milton address the issues that shaped the past century and defined their collective identity? In this course we will study the works of individual authors in the context of broader artistic movements and cultural phenomena. Possible novelists we will read include E.M. Forster, Virginia Woolf, Aldous Huxley, Graham Greene, Elizabeth Bowen, Ian McEwan, Kazuo Ishiguro, and Zadie Smith. We will also consider the works of various poets, essayists, and playwrights.

## TRAGICOMEDY

(*Khoury*)

Admittedly, the term is an inelegant one. Lumping together two seeming opposites, it implies a lazy blurring of categories and distinctions. The writer who introduced the word to English, Philip Sidney, seems to have intended these connotations. In *An Apology for Poetry* (1595) he describes the disturbing popularity of recent plays that are “neither right Tragedies, nor right Comedies” but “mungrell Tragy-comedie”—works of art that fail to achieve the proper “com-miseration” of the former or the “right sportfulness” of the latter. His argument, and Aristotle's before him, is that pity and humor don't mix: we can't laugh properly at subjects we care about or care much about subjects at which we're made to laugh.

Shakespeare is poking fun at the same trend when Polonius touts the readiness of the players to perform something “tragical-comical-historical-pastoral.” But a number of Shakespeare's own final plays reject clear categories, doing away with any last-act crescendo of marrying or burying, and delivering comic and tragic elements in equal measure, even simultaneously. Whether to laugh or cry becomes a slipperier, more subjective question.

This course will likely begin with a Shakespearean tragicomedy before moving on to more recent heirs to the tradition, exploring along the way two other branches of the tragicomic: the less forgiving wit of satire and the gallows humor of the absurd. We will read many (but not all) of the following:

Shakespeare	<i>The Tempest</i>
Swift & Pope	Essays, poems, and short excerpts from <i>Gulliver's Travels</i>
Jane Austen	<i>Pride and Prejudice</i>
Gustave Flaubert	<i>Madame Bovary</i>
Vladimir Nabokov	<i>Invitation of a Beheading</i> (or <i>Pale Fire</i> )
Muriel Spark	<i>The Prime of Miss Jean Brodie</i>
Samuel Beckett	<i>Waiting for Godot</i>
Zadie Smith	<i>On Beauty</i>
Denis Johnson	<i>Jesus' Son</i>
Branden Jacobs-Jenkins	<i>Gloria</i>

## WRESTLERS, DREAMERS, AND WANDERERS: LITERATURE OF THE MIDDLE EAST AND BEYOND

(*Bosworth*)

How else to begin but with *Gilgamesh*! This Akkadian poem, often considered the first great literary work, tells of the demi-god Gilgamesh and the wild man created out of clay and divine saliva to teach him to rule humanely. How very much this epic embodies: notions of storytelling, of the Great Flood, of the citadel as sanctuary, of the self's battle with its animal counterpart, of mortality. We will follow this seminal text with poems and prose and drama deriving directly from *Gilgamesh* (Philip Roth's *The Great American Novel*, in which Gil Gamesh is a baseball player of prodigious abilities, comes to mind) or building on its central themes, particularly the human wrestling with nature. The Leviathan poems in Suzanne Gardinier's *The New World*, Jean Rhys' *Wide Sargasso Sea*, or Yusef Kamanyakaa and Chad Garcia's *Gilgamesh: A Verse Play* may figure, or that most intransigent of American classics, Melville's *Moby Dick*.

Onward, then, to the middle-eastern dreamers, beginning with excerpts from the Hebrew scriptures, notably Jacob's wrestling with the angel/man and vision of a celestial ladder and the Joseph cycle. We will address dream interpretation in the Persian Book of Kings or *Shahnameh*, the poet Ferdowsi's epic account of the birth of the world and the reign of Zoroastrian kings. Of note also is the prevalence of dream interpretation in Arabic cultures and in the Koran (see the Satanic Verses). The role of the interpreter of dreams is clearly an essential one, and we will linger before moving on to, say, *The Interpretation of Dreams* by Sigmund Freud, or Thomas Mann's *Joseph and his Brothers*, or perhaps E.L. Doctorow's searing novel *The Book of Daniel*, a fictional retelling of the Rosenberg trial. T.S Eliot, Sylvia Plath, and Wallace Stevens may further enable us to examine dreams from every angle. We will consider also—as we swoop back around to the region that has birthed several world religions and so much else—modern Arabic, Farsi, Turkish and Hebrew poets and prosers, including works by Assiah Djebar, Naguid Mahfouz, Palestinian poets Mahmoud Darwish and Nawal Saadawi, first-generation-Israeli writers Bialik and Agnon, and sexy, comical Etgar Keret.

Finally—May having arrived, and we having survived term papers and other challenges, including a creative writing portfolio of each student's most singular works—we will turn to a study of the Wanderer. We will examine the importance of the nomadic life to monotheism, the role wanderers, strangers, and exiles play in the Abraham cycle and the Christian scriptures. And then we will read on in, perhaps, Alain-Fournier's remarkable elegy to childhood, *The Wanderer*, or....but by then, the year will have ended.

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# HEALTH

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## 9TH GRADE HEALTH

*(The Department)*

This class explores health as something of both immediate and future relevance to teens, asks how we make health-related decisions, and discusses prevention as a cornerstone to wellness. We also tackle contemporary issues (for example, abstinence-only sexuality education, marijuana legislation, and bathroom bills), and students each design an individual project on technology and /or social media. Broadly, the year is broken down into four areas: sexuality, food (covering eating disorders and the politics of eating), substances, and technology.

## 11TH GRADE HEALTH

*(The Department)*

This class is offered in the first semester of 11th grade and looks at health as both a personal and social issue. Weaving in current events, media, and recent research, 11th grade health discusses issues including stress and anxiety, substance use, sexuality and consent, and the evolving role of technology and social media in our lives. This class also explores controversies in public health and covers the wide range of viewpoints proffered on hot button issues while asking students to think critically about these issues themselves.

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# HISTORY

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## WORLD HISTORY: FRENCH REVOLUTION TO THE PRESENT (9<sup>TH</sup> GRADE)

*(The Department)*

This course covers the 19th and 20th centuries. Europe is the main actor in the 19th century, but with the Europeanization of much of the world in the 19th century, our focus becomes more global. Starting with the impact of the Enlightenment on politics and of the Industrial Revolution on economics and society, we study the “isms” that have dominated the modern world. Throughout the year, students work with primary sources to create both analytical and research-based essays.

## U.S. HISTORY (10<sup>TH</sup> GRADE)

*(The Department)*

This course covers American history from exploration and colonization to the present, encompassing the events that have shaped this American republic straight through to where we are today. A basic text is used, along with source documents.

## JUNIOR/SENIOR ELECTIVES

### AMERICAN WOMEN’S HISTORY: 1848 TO THE PRESENT

*(Schrager)*

This course examines the contributions of women in American history, from the Seneca Falls convention in 1848 to the present day. In the fall semester, students will examine women’s history from the mid-19th century to the mid-20th century, focusing on the roles of women as America modernized. In the spring semester, the course covers material from the mid-20th century to the present, with a concentration on the 20th century women’s movements as well as contemporary issues. Topics covered include the changing legal, social, economic, and political rights of women, shifting notions of gender roles, and images of women in popular culture.

Women have had a diverse history of their own in America, including their fight for suffrage as well as for social and legal equality. In addition, women have played an important role in broader social, cultural, economic and political events such as the growth of labor unions, reform movements, and wars. Women have also become involved in federal and local politics, with some notable successes as well as setbacks. At times women have been central to the dynamic changes that occurred, whereas at others they have remained outside of the mainstream. This course attempts to highlight both the unifying forces and dividing factors among women.

In addition, the course will explore the definition of “feminism,” from Mary Wollstonecraft’s treatise, *A Vindication of the Rights of Woman*, through the three waves of feminism in America that began at Seneca Falls. Today, third wave feminism is a diverse and often diffuse movement, and questions continue to arise about women’s place in society, politics, and culture. The term “woman” has become even more complex in recent years; how does one define what it means to be a woman? What is the relationship between chromosomes, hormones, and gender identity, and how is society changing in the face of these questions?

Students will read both primary and secondary sources, and there will be a significant research component to this course.

Readings include *Major Problems in American Women’s History: Documents and Essays* (ed. Mary Beth Norton), *Nickel and Dimed: On (Not) Getting by in America* (Barbara Ehrenreich), and selections from *The Feminist Promise: 1792 to the Present* (Christine Stansell), *America’s Women: 400 Years of Dolls, Drudges, Helpmates and Heroines* (Gail Collins), *A House Full of Females* (Laurel Thatcher Ulrich), and *Feminism in Our Time: The Essential Writings, World War II to the Present* (ed. Miriam Schneir).

## ART HISTORY: PARTHENON TO PUBLIC ENEMY

(Kapp)

“Art is the lie that enables us to realize the truth.”

—Pablo Picasso

What is art? Is a music video art? Is graffiti? How are these forms any more or less art than a Matisse Cut-Out or a Michelangelo sculpture? Is the quality of a work of art in the eye of the beholder? How do changes in artistic styles reveal (or conceal) changes in political, economic, and social relationships? How is the “strangeness” of much of modern art a response to the strangeness of life in a modern, industrialized world? And why is it that works of art we now define as masterpieces were once despised, ridiculed, or simply not given much notice in their own time?

This class will put the history in art history– the Parthenon as summation of the classical tradition, Picasso as the paradigmatic modern artist, Chinese landscapes as the realization of an aesthetic tradition unrelated to western ideals, or Ai Weiwei as the epitome of a powerful artist-activist – driven by the belief that to place a work in context is to see it more deeply.

You can expect frequent writing assignments and a substantial, independent research project. In addition, secondary and theoretical readings will provide a framework for our “reading” of both traditional art – paintings, architecture, and sculpture – and contemporary forms such as video art, performance art, installations, and earthworks. These may include, John Berger, *Ways of Seeing*, Michael Baxandall, *Painting and Experience*, Susan Sontag, *On Photography*, Linda Nochlin, “Why Have There Been No Great Women Artists?”

## FROM THE PARIS COMMUNE TO THE ARAB SPRING: URBAN RESISTANCE IN MODERN HISTORY

(Ertas)

In recent years urban occupation has made a comeback as a form of resistance against racial injustice, gendered discrimination, global neoliberalism, and authoritarianism. Despite the novelties of the Occupy Movement and the Arab Spring, there is a long history of urban uprisings that dates back to the city-states of Ancient Greece. In this class, we will explore the role of urban protest movements in the process of democratization. We will study the language and art that have come out of these protests and the ways in which they contribute to our understanding of ordinary people's visions of "the good life." We will start the year by asking the questions: What are the foundations of democratic life? What does it mean to be an active citizen in a democracy? What is the relationship between cities (and public spaces) and democracy? Over the course of the year, students will have a great deal of autonomy in choosing the questions and ideas that they want to pursue.

We will start our course with a study of the Paris Commune of 1871 and end with the Arab Spring protests in 2011. In between, we will study decolonization movements, civil rights movements, anti-war protests, religious and nationalist movements, and anti-globalization protests. We will study these movements thematically, chronologically, and comparatively, closely examining the relationship between theory and praxis. We will study movements such as the March on Washington in 1963, the Prague Spring of 1968, and the Iranian Revolution of 1979. We will read diaries, letters, speeches, and other primary documents so as to better understand the ways in which such movements have transformed individuals, interpersonal relationships, and communities. We will watch professional as well as amateur documentaries and films including *The Square*, *Maidan*, *Brother Outsider*, and *La Commune*. Readings will range between theory and history, including but not limited to selections from leading historians Eric Hobsbawm, Kristin Ross, and Barrington Moore Jr.

Readings will be daily and extensive, and students will write weekly response papers. The class will have a strong research component. Students may be asked to collaborate on projects.

## FRONTIERS AND LABYRINTHS: LATIN AMERICAN CULTURAL HISTORY

(Bertram)

This course explores Latin American history from the Pre-Columbian period to the present by examining the ways that cultural production (fiction, autobiography, poetry, drama, song) has reflected the lived and perceived historical realities of diverse communities. Investigating Latin American histories at intersections of race, gender, sexuality, and class, we will come to see how these individual elements work to create the alchemy of political, social, and revolutionary movements that characterize most historical understandings of the region. Literary sources will be contextualized through related primary historical documents of other genres - art, archaeology, bureaucracy, journalism - and secondary historical writing.

Topics will include Native American memory and history before and after the invasion; historical inventions and reinventions of Mestizx identities in Colonial New Spain; conquest as literature in the relaciones of Conquistadores; nationalist mythmaking in the Independence period; sexual

narratives of politics and sexual politics of narrative in the 19th and 20th centuries; reclamation of truths through fictions under authoritarian regimes; borderlands and biopower in late 20th century Chicana communities; and literatures of resistance and revolution. Selections may include Sor Juana Inés de la Cruz's *La Respuesta*; the poetry of Martí, Alurista, and Neruda; Eduardo Galeano's poetic histories; novels by Puig and García Márquez; autobiographical work by Oscar Zeta Acosta, Junot Díaz, Rigoberta Menchú, and Gloria Anzaldúa; and theoretical writing by Edward Said and Michel Foucault. All texts will be in translation, and weekly writing assignments will be expected.

## GIMME SHELTER: A POLITICAL HISTORY OF NUCLEAR POWER

(*Brazee*)

"In the thermonuclear age, any misjudgment on either side about the intentions of the other could rain more devastation in several hours than has been wrought in all the wars of humanity."

– John F. Kennedy (1961)

This course will focus on the history of nuclear power around the world and how it has been used by leaders both domestically and abroad as a means to achieve political objectives. Additionally, we will discuss how the creation of nuclear weapons has impacted foreign relationships since WWII. Topics will include the development of nuclear power programs in the Soviet Union and the United States, the bombings of Hiroshima and Nagasaki, Operation Crossroads and the hydrogen bomb testings at Bikini Atoll, nuclear weapons as points of contention in the Cold War, America's "Atomic Age", the Cuban Missile Crisis, SALT I and II, modern-day concerns of nuclear weapons in the Middle East, and the political implications of the Chernobyl and Fukushima disasters.

Readings will likely include *Hiroshima* by John Hersey, *Operation Crossroads: The Atomic Tests at Bikini Atoll* by Jonathan S. Weisgall, *The Age of Deception: Nuclear Diplomacy in Treacherous Times* by Mohamed ElBaradei, *The Dead Hand* by David E. Hoffman, *Full Body Burden: Growing Up in the Nuclear Shadow of Rocky Flats* by Kirsten Iversen and *Voices from Chernobyl: The Oral History of a Nuclear Disaster* by Svetlana Alexievich. Films will include *Atomic Cafe*, *Dr. Strangelove*, *Inside Chernobyl*, *The Day After* and bomb testing footage. We will also look over a variety of primary sources.

\*\*\*For students enrolled in this elective, there will be an optional field trip over Spring Break to the National Atomic Testing Museum and testing sites in Las Vegas NV, various nuclear history locations in Los Alamos, NM and the White Sands Missile Museum in Albuquerque, NM.\*\*\*

This course will require regular reading, informed class discussion and the completion of a major research paper.

## THE MEDIEVAL WORLD AND THE MODERN IMAGINATION

(Stevens)

Why do so many invented worlds in literature look like the European Middle Ages? This course will examine the relationship between modern fantasy literature and the realities of the medieval world. The heart of the course will involve an examination of how and why J.R.R. Tolkien built the groundbreaking world of *The Lord of the Rings* around his own extensive understanding of the languages, peoples, and literature of medieval Europe and the Mediterranean—a process that he called “Mythopoesis.” We will extend our analysis of Tolkien’s work back into the period of 19th century Romanticism and Victorian literature, forward to an examination of some of his many imitators and offshoots, and read a number of medieval sources that inspired the first generations of fantasy literature authors. We will spend much of our class time considering the place of “real” history in the invented, “medievalist” worlds of fantasy literature, and we will conduct a full survey of significant medieval events and ideas. We will also look at the current fascination for historical and invented medieval worlds in movies, TV series, and video games, with an eye towards trying to define our own society’s relationship to this corner of the past. There will be a great deal of reading, many papers, book reviews of modern and medieval texts, and a project requiring students to construct their own mythopoetic worlds.

## MODERN EAST ASIA

(Kang)

Independence! Nationalism!

This course will examine the histories of China, Korea and Japan from the mid- 19th Century to the present. Investigating how each country aims to preserve or gain its independence within the realm of a changing new world order, we will examine a number of events and ideas that emerged in the 20th century. While each country developed its own national identity and experience, their overlapping experiences also shape their individual paths. Moreover, while Asia was certainly a distinct arena for major changes in the global order, we will inevitably consider the role that the Cold War played in shaping these countries’ national identities. In addition to the political, economic and social influences on the histories of these countries, we will further look at the emerging cultural impact and products of their experiences. Viewing and examining art, feature films and music, we will assess the cultural manifestations of the formation of these modern states. Readings will include a number of secondary and primary resources, including memoirs. Be prepared to read carefully and write regularly. Also be prepared to watch a number of documentary films and listen to various podcasts. Assignments will include essays, debates and research.

Readings/assignments will include: Jung Chang’s *Wild Swans*, Jonathon Spence’s *Search for Modern China*, Victor Cha’s *Impossible State*, Andrew Gordon’s *Modern History of Japan*, Mori Ogai’s *The Wild Geese*, and films by Zhang Yimuo, Bernardo Bertolucci and Akira Kurosawa.



## NATIONALISM, REBELLION, AND WARFARE IN THE 19TH CENTURY

*(Mellon)*

In this class, we will examine the time from the final overthrow of Napoleon to the eve of World War One. While we will examine many events, we will focus on three major conflicts of the mid-19th century: the Crimean War, the Taiping Rebellion and the American Civil War, as our main units for understanding how warfare, rebellion and nationalism shaped this era, caused the re-shifting of traditional alliances, shook old empires and foiled the (somewhat) successful attempt of the Congress of Vienna to keep Europe from plunging back into world war. Our three main texts for the class will be *The Crimean War* by Orlando Figes, *Autumn in the Heavenly Kingdom* by Stephen Platt, and *Battle Cry of Freedom* by James McPherson, but expect lots of other readings from such sources as Tolstoy, Whitman, Shelby Foote and the newspapers of the times, as well as several papers.

## NEW YORK CITY HISTORY

*(Swacker)*

New York City History is designed to provide a broad historical overview of our city. The course will examine the entire history of New York City from the Dutch colonial period (1625-1664), through the English period (1664-1783), and up to the present. The history of the city will be examined from different perspectives: economic, spatial, immigration and demography, religion, ethnicity, politics, and the arts (including architecture and popular culture). The course will go beyond the period of master builder Robert Moses (1930s-1960s) to include the building boom and population growth of the past thirty years. Field trips, walking tours, and interviews will be arranged. A research paper will be required. History books, various maps and charts, short stories, memoirs, archival newspaper articles, and collections of photographs will comprise the reading.

## SCHOOL AND SOCIETY IN AMERICA

*(Goldberg)*

What are schools for? Who should go to school and at what age? Are public schools vehicles for democracy and equal opportunity, or are they tools of state indoctrination? Are private schools anathema to democratic values, or natural outgrowths of the national ethos of liberty and choice? What is the goal of a university education? Should everyone attend college? How are schools products of the society we live in, and how is our society a product of our schools? What characterizes a “good” school? Do we need school at all?!

This course on the history and philosophy of education in the U.S. explores the wide range of answers Americans have given to these sorts of questions over the past three hundred years. Generations of Americans have placed extraordinary faith in the school as a vehicle for social progress and a panacea for all that ails society. Yet diverse diagnoses of what’s actually wrong with America during any given era have inspired equally diverse schooling solutions. As a result, schools have been a constant source of social conflict over questions of race, war, gender, sexuality, national identity, and the relation between individual rights and federal authority. Ultimately, the kinds of schools we build say a lot about what kind of society we want to create.

Topics include the evolution of public schools; the long African American struggle for racial equality in education; the bursts of radical school reform in the Progressive Era and 1960s; the origins of standardized tests and current controversy; and the history of alternative education including private schools, charters, and homeschooling. Most of the readings will be taken from original sources, with weekly response papers and several research assignments. Guest speakers and local field trips to analyze unusual schools in action will round out our source material.

## VICTORIAN SOCIETY AND SCIENCE FICTION

*(Deimling)*

In the nineteenth century, western Europeans invented the modern world, creating the most scientifically, politically, and socially advanced civilization in human history. New machines reduced costs, production soared, innovations in communications and transportation reduced distance and time. Slavery was abolished for the first time. Women enjoyed a status higher than anywhere else in the world. Political participation was extended to workers and propertyless men, and dissidents and activists began to imagine social ownership of national wealth. At the same time, the startling gap between rich and poor and the desperate plight of workers, the exploitation of colonized peoples, and the rapid advance of military technology created unease. The explosive theory of evolution threatened to reduce mankind to just another species of animal struggling for existence in a Godless universe. Many of these hopes and anxieties were explored in the developing genre of science fiction. This course will look at science fiction to illuminate Victorian social and intellectual history. We will read books such as Jules Verne's *20,000 Leagues Under the Sea*, Bulwer-Lytton's *The Coming Race*, Charlotte Perkins Gilman's *Herland*, and H.G. Wells' *The Island of Doctor Moreau*. About half the assigned reading will be works of traditional history and scholarship. There will be weekly papers, short presentations, and lengthy homework readings written in the verbose Victorian literary style.

## INDEPENDENT RESEARCH IN HISTORY

*(The Department)* (1x per week)

The Independent Research in History program enables students to explore a historical topic in depth over the course of the school year. Working with a mentor from the department, students will identify the significant historical questions raised by their chosen topic, and pursue them by various research techniques, and through the use of a variety of sources and documents. Students will meet one period a week in class, and once a week with their individual mentors throughout the year.

Each research project may be the work of up to two students. The expectation is that students will develop their research into a significant formal historical essay, to be presented at the end of the school year in a symposium. Papers may be accompanied by a supplementary presentation of research in another medium.

To be considered for Independent Study in History, students need to submit a substantial research proposal to be considered for approval by the department. This proposal should be submitted to the History department by June 1.

Preference will be given to seniors. The maximum enrollment for this program is 16 students.

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# INTERDISCIPLINARY STUDIES

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Courses in this program will explore topics, problems, or relationships that do not fit within the boundaries of a single discipline. In doing so, not only will the ideas of two or more disciplines be considered and brought to bear, but also their methods and media.

## BECOMING BLACK

*(Mackall)*

This interdisciplinary course explores the creation of the idea of Transnational Blackness. Beginning with a consideration of culture and politics in Africa before European colonialism, this course will explore topics including: the Transatlantic Slave Trade, international abolition and resistance movements, the economic, social, cultural, and political legacies of Chattel Slavery in the U.S., the Haitian Revolution, European colonialism and exploitation of Africa, and the emergence of Pan-Africanism. We will center the voices and scholarship of people of African descent in our readings, and, in keeping with the traditions of Sankofa, will consider the contemporary implications of history.

Students will be expected to read independently and respond to the course materials in class discussions, regular short-response essays, and a substantial culminating project, which might include written research, oral presentation, performance, or other creative expression.

Readings include:

*The Half Has Never Been Told* by Edward Baptist

*Black and White Manhattan* by Thelma Wills Foote

*The Black Jacobins* by C.L.R. James

*Selections from Black Reconstruction* and *The Souls of Black Folks* by W.E.B. DuBois

*Walker's Appeal* by David Walker

*The Underground Railroad* by Colson Whitehead

Other writers include: Maria Stewart, Frederick Douglass, Frances E.W. Harper, Harriet Jacobs, Henry Louis Gates, Thavolia Glymph, John Hope Franklin, Ali A. Mazrui, and Paul Gilroy.

This course may be taken for Interdisciplinary credit.

## FILM, MONEY, AND POLITICS

*(Dobski)*

This course will discuss the development of the technology, the art form, and the business of film in a symbiotic relationship with world events, the U.S. economy, and culture. The focus will be on the American film industry, with continuing references to British, French, German, Italian,

Swedish, Russian, and Japanese cinema. The course will attend to the canon of classic cinema history; however, we will also look at less-traditionally taught cinema history, such as the avant-garde, early African American and Asian American cinema, and works by women directors.

As film was the primary art form of the twentieth century, we will investigate how images were first captured, how an entertainment industry was invented, and how the language of cinema developed. With this background, and with an understanding of the political and economic climate of any given moment, the class will experience how cinema both reflects and creates culture. Our timeline will begin with the prehistory of cinema, and travel through the development of motion pictures in 1893, through to the videotape revolution of the early 1970s. But, of course, we will always react to the moment and may screen a film from any time period appropriate to our topic of conversation.

There will be outside-of-school film experiences including special screenings at MoMA and Metrograph, viewing the collection of film and television equipment at the Museum of the Moving Image, and visits to offbeat venues such as Mono No Aware, a Brooklyn-based analogue-film facility that hosts new cinematic “experiences” shot and projected on film.

The class will read from various texts on cinema and media history including Neil Postman’s *Amusing Ourselves to Death*, Marshall McLuhan’s *Understanding Media*, and Rebecca Solnit’s *River of Shadows*. Screenings will be in class and at home via Google Drive. There will be in-class writings, and each student will research a major project and present their findings in class.

This course may be taken for Interdisciplinary credit.

## THE PHYSICS OF CONSCIOUSNESS

(Pelzer)

Look inward... and you find pure experience. What is its origin? Is it emergent from complex physical states of matter, or inherent in the fundamental fields of existence themselves? We will begin by journeying through the work of philosophers and poets such as Descartes, Plato, Kant, Schelling, and Wordsworth, as well as ancient teachings from Buddhist and Taoist texts such as the *Dhammapada* and *Tao de Ching*. With these Western and Eastern philosophical and spiritual paradigms in hand, we will explore modern neuroscience and how consciousness states connect with the brain, discussing ideas such as Integrated Information Theory, the only testable model of consciousness ever conceived. We will look at biological systems and how they form, interact, and function, seeing how theories about these these systems imply how consciousness is incorporated in their existence and development. We will — and this is a core aspect of the course — look at the laws of physics with respect to attraction and repulsion, momentum, gravity, weight, tension, light and shadow, lensing, currents, and entropy in order to subject their properties and patterns to internal and external examination of how consciousness operates. And we will employ certain aspects of physics — such as how quantum particles interact to form structures up to the macro-level — to explore how complex systems interact with their environment. The goal is to begin to understand the fundamental core of the conscious experience, and to look for connections among the philosophical, the spiritual, and the scientific.

Here is a taste of what this endeavor will involve: An atom uses its electrons to sense the outside world, and is either naturally attracted or repelled from other atoms via force-fields, creating its motion and path through space and time. It processes information in a very specific way, and the feedback loops within this process create a nonzero value of consciousness, according to Integrated Information Theory. Buddhist text and scholars say, of course it has consciousness! It is the universe, and the universe is it.

Students will do problem sets, write essays, and be their own test subjects for research projects, presentations, meditative journals, and self-reflective artistic interpretations of the material.

This course may be taken for Interdisciplinary or Science credit.

## THE SCIENCE OF COMMUNICATION AND HABIT: A DEVISED THEATER PROJECT

*(Lerman/Victorson)*

How has the evolution of communication technology altered our habits and everyday behaviors? With the push of a button, we now send stories, feelings and important information that used to take hours to write and days, weeks or even months to be delivered.

In this class, we will study the neuroscience behind reward circuits, neurons and dopamine while exploring the history of communication over distance (couriers, mail delivery, email, iPhones). We will mine through scientific journals, case studies, and thought experiments to study the science of conditioned behaviors while seeking themes of time and expectation in letters, short stories, plays, poems and lyrics. Following models of devising theater (Joint Stock, Complicité, SITI Company and others) we will use our research to improvise scenes and stories, develop movement and choreography and then write, rehearse and ultimately perform (in workshop format) an original piece of theater based on our discoveries.

Texts will include: *Beyond Freedom and Dignity* by BF Skinner; *The Behaviorist Manifesto* by John Watson; *Social Learning Theory* by Albert Bandura; *The Psychology of the Child* by Jean Piaget; *The Joint Stock Book* and *The Making of a Theater Collective* edited by Rob Ritchie; and *The Viewpoints Book* by Anne Bogart and Tina Landau

Students will be asked to submit regular responses to lectures, workshops and course materials. Responses may be written or performed. There will be one research paper. Guest lecturers and workshops on related topics will be a regular component – topics may include The History of Time, Animal Training, Cognitive Psychology, Behavioral Neuroscience and Oral History. Students will learn to work as a collaborative ensemble in order to build a final performance. The workshop performance will be outside of class in the evening. All students are required to attend one weekend rehearsal and the evening performance.

This course may be taken for Interdisciplinary credit.

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# CLASSICS & ASIAN LANGUAGES

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## ASIAN LANGUAGES

### Chinese

Chinese classes at all levels are aimed at developing communication skills in listening, speaking, reading and writing. Our goal is to help students use Chinese to exchange information and to communicate their ideas. Students learn Pin Yin, the four tones, characters, and syntactical structures, and study selected poems, short plays, newspaper clippings and authentic Chinese literary works. We use the series of *Chinese Made Easy*, which consists of 5 books. *Integrated Chinese Level 2, Book 2* is used at the higher level. In addition to developing language skills, the courses endeavor to increase students' awareness and understanding of Chinese-speaking cultures. The integration of language learning and culture is strongly emphasized. Both traditional and simplified characters are introduced according to the interest of the students.

#### CHINESE 1

*(The Department)*

This course is an introduction to the Chinese language, with an emphasis on pronunciation – Pin Yin and four tones. At the same time, students study radicals, stroke orders, characters and basic sentence structures. Chinese songs, poems, and rhymes are introduced. Students study 350 characters.

#### CHINESE 2

*(The Department)*

The review of Pin Yin and tones continues throughout the year with an emphasis on the use of Chinese to discuss related topics in both speaking and writing. Students study more grammar, sentence structures and vocabulary. They read short paragraphs and selected authentic materials such as advertisements, weather forecasts, etc. Students are encouraged to initiate and carry on conversations to exchange information and express opinions about related topics. Students study an additional 360 words and expressions.

#### CHINESE 3

*(The Department)*

This course is designed to help students solidify their grasp of grammar and vocabulary. The emphasis is on increased ease and accuracy in speaking Chinese and reading comprehension. Students are expected to give oral presentations about topics such as schools and places in China. They study topics like Chinese cooking, communities, Chinese festivals, and school calendars. Students learn an additional 600 words and expressions.

## CHINESE 4

*(The Department)*

In addition to introducing more vocabulary and grammatical points, this class concentrates on more complex sentences and paragraphs. Intensive study increases the students' command of linguistic structures and functions and gives them a firmer grounding in speaking and writing more idiomatic Chinese. Students learn to discuss and write more fluently and with greater length on the geography of China, the relationships between parents and their children, the differences and similarities between Chinese medicine and Western medicine, and the relationship between pollution and environmental protection. Another 600 words and phrases are introduced.

## CHINESE 5

*(The Department)*

Students finish the remaining five lessons in *Chinese for Youth*, which introduce Chinese paintings and calligraphy, famous writers and their works, the influence of modern inventions to our lives, summer vacation plans and part-time jobs. Students learn to express their personal views and exchange opinions about these social issues in more complex language. They do more exercises like responding to e-mails and writing personal letters on related topics; reading more complicated signs, public announcements, newspaper clippings; giving presentations and doing interviews in more fluent and accurate Chinese. Students learn an additional 500 words and expressions.

## CHINESE 6

*(The Department)*

Students continue to study more probing texts that reflect the many facets of contemporary Chinese society, family values and Chinese literature. China's strengths and problems are revealed through analysis, explanation and debate. Some lessons deal with crucial social and intellectual concerns in current China. Students continue to hone their overall abilities in speaking, reading and writing Chinese. Another 500 characters and phrases will be introduced.

## CHINESE CONVERSATION

*(The Department)* (2x per week)

Students who have completed Chinese 5 are strongly encouraged to take this course in addition to their regular Chinese class. Through the use of various practical scenarios, it offers an opportunity to gain confidence and facility in speaking more idiomatic and spontaneous Chinese. By enlarging vocabulary and improving oral/aural skills, students gain fluency in discussions about daily life, education, politics, food, travel, and so on.

# Japanese

## JAPANESE 1

*(Otsue)*

The first year of Japanese focuses on building students' foundations in the language. While students take in the two phonetic systems, hiragana and katakana, and some kanji characters, they learn basic grammar including distinctive aspects of the language such as use of markers. Numerous patterns that are needed to construct sentences to function in various social situations are also introduced.

## JAPANESE 2

*(Otsue)*

The second year continues from the first with grammar, but adds an emphasis on composition — students begin writing weekend journals. They continue to build their foundation in the language including distinctive aspects such as measurement words for various objects, equipment, animals, machines, etc. Students continue to learn to function in various social situations including ones in which they are required to use keigo or honorifics.

## JAPANESE 3

*(Otsue)*

The third year continues the emphasis on developing all four skills of speaking, listening, writing, and reading, and building on what students have learned in previous years. A number of complex sentence patterns and formulaic expressions are introduced. Students are provided with extensive training to enhance their communication skills, putting emphasis on spontaneity and accuracy. Creative writing exercises are embedded in grammar exercises. The listening comprehension materials include real life dialogues. New kanji and kanji vocabulary are introduced on a daily basis.

## JAPANESE 4

*(Otsue)*

The fourth year builds on the foundation from the third, but explores reading more extensively. The reading materials include manga style texts, stories, cultural episodes, etc. and include a number of new and old kanji. Students continue to build up their vocabulary.

## JAPANESE 5

*(Otsue)*

The fifth year continues with an emphasis on reading, but will now feature texts with more complex syntax and advanced kanji vocabulary in both the formal and the informal styles. Readings cover a wide range of topics including Japanese inventions, social hierarchy, traditional arts and Zen, etc. Students will further their understanding of Japanese society and culture through discussions on history and current social issues. In addition, students will learn to express their opinions and thoughts in the formal style of writing with stronger command of the language. In order to facilitate students' fluency, more sentence patterns, formulaic expressions, idioms, and use of onomatopoeia are introduced.



## JAPANESE CONVERSATION/COMPOSITION

*(Otsue)* (2x per week)

Students further develop their abilities to express themselves effectively. Students also explore the culture via various mediums. Students are given ample time to discuss topics like cross-cultural issues, cultural and current events, etc. On a regular basis, students are asked to conduct research and give oral presentations on a topic of their choice. As they develop their presentation skills, students learn to construct cohesive paragraphs when working on both spoken and written tasks.

## CLASSICAL LANGUAGES

### Greek

#### GREEK 1

*(The Department)*

This course introduces students to the rudiments of Ancient Greek. Memorization of forms, vocabulary and syntax are stressed in order to facilitate the reading of unadapted Greek texts as quickly as possible. By the year's end, students will have a strong command of basic syntax and will be prepared to learn complex syntax in Intermediate Greek.

#### INTENSIVE ANCIENT GREEK

*(The Department)*

This is a fast-paced, intense course that introduces the essential morphology and syntax of Ancient Greek. The systematic acquisition of forms and vocabulary complement the learning of simple and complex syntax. As the name of the course indicates, this is an intense experience, but one that enables students to read Ancient Greek texts in the original by the end of the year.

#### GREEK 2

*(The Department)*

This course features review of material from Greek 1 and continues to round out the students' knowledge of Greek forms and syntax. In the second semester, students will refine their skills through translation of selections from a variety of authors, including Herodotus, Plato, and Aristophanes, and will explore the different styles and expressions employed by each. The course is intended to provide students with the skills and confidence to move on to more intensive exploration of specific Greek texts.

#### GREEK 3

*(The Department)*

A pure translation course, this class focuses on writings that concern the conflict between rational and irrational on individual and societal levels. We read from Plato and Euripides, the possibly delving into the world of comedy. Students gain an advanced understanding of syntax and familiarize themselves with prose and tragic constructions. **Prerequisite(s):** Greek 2 or Intensive Ancient Greek

## GREEK 4: HOMER, *THE ILIAD*

(*Mason*)

We will read Homer's great epic, *The Iliad*. We will focus on acquiring a solid understanding of Homeric morphology and syntax while we begin to approach the poem as a literary and cultural artifact. We will consider the world and worlds that informed the creation of the epic, we will try to come to some understanding of what this poem *meant*, and we will consider its reception across time and space. We will confront the other, face the human condition stripped bare, and we will marvel, cry, and grow.

## GREEK 5/6: ARGONAUTICA

(*Connaghan*)

Jason and the Argonauts is a seminal European myth. Jason sets out with a band of heroes on a quest to the ends of the earth to claim the fabulous Golden Fleece. In doing so he passes through bitter trials, embarks on a tragic love affair with Medea, and dies a lonely broken man. We will read this myth through the lens of Hellenistic poetry. The Hellenistic world is the 3rd century BCE fallout from Alexander the Great's death: a world of vast Greek empires and a dislocated sense of self. Ptolemaic Egypt aspires to be the center of this world and establishes a library as its intellectual hub. The library houses a record of all of the achievements of the Greek world but also the jealousies, intrigues, and quarrels of the scholar poets of the day. It is these poets that we will read – most notably the brilliant Apollonius of Rhodes, Theocritus, and Callimachus. Through our reading of the Jason myth we will encounter the complexities of the Hellenistic world and its literature, witnessing these poets as they engage with the Greek literary and mythic tradition, debate aesthetics, and occasionally stab one another in the back.

## Latin

### LATIN 1

(*The Department*)

This course introduces the student to the basics of Latin forms and syntax. Memorization of forms and syntax is stressed in order to facilitate the reading of Latin literature as quickly as possible. Readings are selected from Cicero, Caesar, Martial and others. The course also covers background material on mythology, history, and Roman life.

### LATIN POETRY, PROSE, DRAMA & THE NOVEL

(*The Department*)

Designed as a bridge between the introductory Latin course and specialized electives, this course emphasizes facility in reading and translating Latin authors, studying the literary forms we read, and using textual evidence to gain insight into life in the ancient world. Authors include Cicero, Ovid, Plautus, Sallust, Livy, Catullus, Horace, Caesar, Vergil, and others. The course also intensively reviews Latin grammar and syntax.

## THE AENEID: VERGIL AND THE LATIN EPIC

(*The Department*)

*The Aeneid* is the Roman epic that charts the mytho-historical founding of the Roman people and state. Books I, II, IV, VI, VII, VIII, X and XII of the *Aeneid* are read in Latin, in part or in whole, and the rest of the text in English. Emphasis is on translation and textual analysis, with daily assignments for translation as well as passages for sight-reading in class. Several short critical papers are required. **Prerequisite:** Latin Poetry, Prose, Drama & The Novel

## SLAVES & FREEDMEN

(*Kingsley*)

Slaves constituted some forty percent of the population of ancient Rome. Though most lived and died obscure in the largely unquestioned and diffuse system of dominium, some do feature in memorable anecdotes in the literary record. They will be our first survey, ranging from Dionysius, learned enough to manage, and thief books from, Cicero's library, to Spartacus, commander of the fateful uprising. We will also observe the institution as itself an object of contemporary concern. How did the status of slaves evolve? What did the slave-owner expect and what was expected of him? When enslavement was the norm for military defeat, and moreover when manumission was so accessible by money, merit, or master's whim, along with automatic citizenship, how could Roman selfhood be wrapped up in one's own freedom? We will survey fictional slaves and freedmen across genres, noting the paradoxes of intimacy/agency and possession/abuse that they embody, as in the ritual Saturnalia, and the abstracted or hypothetical "slave" as a useful test case for Seneca's Stoicism (in quos superbissimi, crudelissimi, contumeliosissimi sumus). Also we'll trace the metaphoric uses of libertas/servitium especially frequent in the love elegists and also in the republican critiques of the Caesars. We will look at some ex-slaves who became colossi in Roman politics (e.g., the not-so-secret shadow emperors of Claudius) but our chief sustaining interest will be in translating the Latin of actual ex-slaves -- Terence, the African playwright with what Caesar called the purest diction and Phaedrus, the Aesopian fabulist in service to multiple emperors. Others held in great esteem live now in suggestive fragments: Publilius Syrus, the mime who collected maxims; Caecilius Statius, early Rome's top comic; Livius Andronicus, the very first dramatist. The many subjects of funerary epitaphs still being unearthed far and wide, as well as some sons of freedmen, Accius and Horace, will shed their light, too. **Prerequisite:** Vergil

## LIVY: AB URBE CONDITA

(*Mason*)

The first five books of Titus Livius' account of the history of Rome from its founding to the present day was published sometime between 27 and 25 BCE, just as Augustus was becoming *Augustus*. Before his death in 17 CE, Livy had written one hundred and forty-two books of the *ab Urbe Condita*, thirty-five of which (plus some fragmentary material) survive to us today. Telling the story of Rome and her people indeed was no small affair. In this course we will read from the early books of Livy, where we will visit (and revisit) what we might call the foundational myths of Rome – Aeneas' journey from Troy to Italy, the conflict between Romulus and Remus, the war with the Sabines – but what Livy and his readers might have read as foundational truths. As we wrestle with what it means to write a history of Rome – and what it means to write *history* – we will explore these stories as an archeologist would investigate the complex stratigraphy

of the city of Rome, carefully unpacking and untangling their layers with the goal of gaining a richer appreciation of the Roman world in which Livy thrived. As we translate, we will relish Livy's gorgeous Latin, we will marvel at Livy's capacity to spin a tale, and we will confront the towering intellect that makes this work a compelling read. **Prerequisite:** Vergil

## ROMAN SATIRE

*(Siebengartner)*

Satura quidem tota est nostra, "But satire is entirely our own." With these words the 1st century CE scholar and rhetorician Quintilian famously claims that satire is a native Roman genre. Unlike epic, tragedy or elegy, for instance, which Latin authors adapted from the Greeks, satire is a Roman invention. Still, the definition of Roman satire has been hotly debated since antiquity. In addition to Quintilian, even the Latin satirists themselves struggled to describe the essence of what they were doing - perhaps, like irony or pornography, similarly resistant to clear definitions - "You know it when you see it."

In this course, we shall survey the central authors of the Roman (mostly verse) satirical tradition, moving from the fragmentary remains of the earliest practitioners Ennius and Lucilius, through Horace's *Sermones*, to the abusive stoicism of Persius' poetry, and, finally, the rants of Juvenal. In addition to looking at these five canonical satirists, we will also explore (a) the ways in which other genres include satiric elements and (b) the literary historical background that contributed to the genre's birth and development.

One key aspect of our investigations will be the consideration of how satire was or was not able to speak truth to power during very different periods of Roman history. Under what leaders was it safe/unsafe to name the targets of your satire? Were there consequences to the political critiques of the satirists? These are, alas, questions we are asking ourselves today in our own country. In what ways do our own efforts to use humor to address the power centers of our own political system find their roots in ancient Rome's only purely native literary tradition? **Prerequisite:** Vergil

## Other Courses

### INTRODUCTION TO HISTORICAL LINGUISTICS (2X A WEEK)

*(The Department)*

The goal of this course is to familiarize students with the central concepts and debates of historical linguistics, with a particular focus on Indo-European languages. We will begin the year by studying phonetics/phonology, morphology, and writing systems before turning to the complicated history of English, when students will learn, for example, about Grimm's Law, Verner's Law, and the Great English Vowel shift by looking at texts like *Beowulf*, *The Canterbury Tales*, and Shakespeare. Finally, based on the interests of the class, we will turn our attention to non-Germanic branches of the Indo-European family tree and/or to non-Indo-European language families. All along, students will practice the skills they learn by means of in- and out-of-class problem sets. No Latin or Greek experience required.

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# ROMANCE LANGUAGES

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## FRENCH

### ACCELERATED FRENCH

*(The Department)*

This course is offered to students who have successfully completed at least two years of another Romance language, and whose experience with language learning enables them to proceed at a faster pace in assimilating the usages of French. This course emphasizes aural/oral proficiency as well as written skills.

### FRENCH 1

*(The Department)*

This course is for students who are new at learning a Romance language, and for those who need one more year to solidify their knowledge and usage of the fundamentals. Emphasis is placed on sentence structure and oral expression. Students acquire elementary conversational skills, and vocabulary is learned through texts and review exercises. Web-based interactive exercises and activities help students practice and retain the material. Special attention is given to accurate pronunciation.

### FRENCH 2

*(The Department)*

Students entering this level already possess fundamental skills of grammar and expression (as described in French 1). This course is designed to foster continued development in each of the four language skills: speaking, writing, reading, and aural comprehension. A variety of materials are used: a textbook and workbook to reinforce grammar and vocabulary, and short readings to encourage class discussion and serve as samples of written text. Audio materials are used in class to improve listening comprehension skills. Accurate pronunciation is stressed.

### FRENCH 3

*(The Department)*

In French 3 the objectives are to reinforce the students' command of basic grammatical concepts and to stress the idiomatic use of French. We place an emphasis on the assimilation of all major grammatical structures. Readings such as Saint Exupéry's *Le Petit Prince* or Sempé and Goscinny's *Le Petit Nicolas* are used to expand vocabulary and provide topics of discussion. We consider questions of content and form. Topics of class discussion serve as the basis for composition writing. At the end of this course, students should be able to speak and understand French with relative ease and to write coherently.

## FRENCH 4: FRENCH LANGUAGE & CULTURE

*(The Department)*

This course exposes the students to a variety of materials, textual as well as audio-visual, and emphasizes communicative skills through conversation and hands-on activities. Cultural themes pertaining to life in the French-speaking world, are presented through French films and other appropriate material. After a careful elucidation and practice of the linguistic elements necessary for exploring these themes, students are able to express themselves on the various topics introduced.

## FRENCH 4: FRENCH LANGUAGE & COMPOSITION

*(The Department)*

This course is designed (1) to help students refine their knowledge of the subtler, more complex points of French syntax, and (2) to put the students at ease with the practice of the structures learned previously, by seeing them and applying them “in context.” To that end, literary texts are used as tools to expand vocabulary and to familiarize students with increasingly difficult texts. By the end of the year, the students should have assimilated and synthesized all previously learned rules and forms of French syntax. They should also be proficient readers and writers.

## CONTEMPORARY TOPICS IN FRENCH LITERATURE AND FILM

*(The Department)*

Designed for students who have successfully completed French 4 and are interested in gaining increased fluency in oral French, this two-semester course explores contemporary topics in the French-speaking world through literature and film. One semester is dedicated to reading and discussing works by contemporary French writers (such as Tahar Ben Jelloun, Michel Tournier, Marie NDiaye, Eric Emmanuel Schmitt, Amélie Nothomb, and Dany Laferrière). The linguistic forms encountered in the texts (plays, short stories) may vary from highly literary and standard French to slang, thus exposing the students to the language as it can be experienced in the Francophone world today. Students are required to read an average of five to ten pages per night and to keep up with the new vocabulary introduced. While the emphasis is on oral expression, students are expected to write summaries, character and plot analyses, as well as short essays, on a regular basis. The other semester is dedicated to the viewing and discussing of films addressing topics such as global challenges, education, politics, crime and society, relationships and environment. Each week, students come to class having watched the film assigned over the weekend and ready to discuss it. Through activities such as oral presentations, dubbing, writing film reviews, dialogues and character studies, students will expand their vocabulary and improve their communication skills. Special attention will be paid to idiomatic expressions and the way French is spoken in everyday life. By the end of the year, students should have refined their aural and expressive abilities and gained a greater awareness of some aspects of the contemporary Francophone world.

## FRENCH LITERARY TRENDS FROM THE 19TH TO THE 21ST CENTURY

*(The Department)*

The early 19th century sees the flowering of the Romantic movement in literature, music, and art. The poets, novelists, and dramaturges of the period often incarnate the Romantic hero portrayed in their works: Lamartine, Hugo, Desbordes-Valmore. With the onset of the industrial age, new writers reject *l'idéalisme romantique* for *la réalité matérielle*. The preferred genre of the realists is the novel, which comes into its own in the 19th century: Balzac, Flaubert, Zola. Poetry flourishes with the works of Baudelaire, Verlaine, Rimbaud, and Mallarmé. The early 20th century celebrates the marriage of philosophy and literature in *la littérature engagée* of Sartre, Beauvoir and Camus, while the theater—Ionesco, Beckett,—seeks its own solutions to depicting the modern *condition humaine*. Finally, the *nouveau roman* not only announces the death of character but seems to herald the demise of the novel itself: Robbe-Grillet, Duras. Other authors may include Proust, Breton, Césaire, Damas, Ben Jelloun, Modiano, and Lahens.

## 17TH AND 18TH CENTURY FRENCH LITERATURE: CLASSICISM AND THE ENLIGHTENMENT

*(The Department)*

Open to juniors and seniors who have successfully completed the French Literary Trends course. We begin at the golden age in France, a time of belief not only in the divine right of kings but in the divine itself. Inherent in such beliefs was the idea of the absolute—absolute power, absolute reason, and, by extension, the “absolute” work of art. In literature, perfection becomes the rule, and prescriptions for achieving it are devised. Corneille, Racine, and Molière are recognized as major craftsmen. By the 18th century, cracks begin to appear in the bastion of Absolutism. Writers known as *les philosophes* declare war on heretofore sacrosanct tenets, with words for weapons. The French Revolution begins as a conflict of ideas eventually exploding into insurrection. “*On est tombé par terre, c'est la faute à Voltaire; le nez dans le ruisseau, c'est la faute à Rousseau.*” Authors are chosen from those above and from the following: Pascal, Madame de Sévigné, Madame de la Fayette, La Bruyère, La Fontaine, La Rochefoucauld, Beaumarchais, Diderot, and Montesquieu.

## ADVANCED READINGS IN FRENCH LITERATURE

*(The Department)*

For students who have completed all other French electives. Works are selected based on students' interests and literary background.

## FRENCH CONVERSATION

*(The Department)* (2x per week)

Offered to juniors and seniors, and to sophomores with permission of the department chair, this class helps students use their acquired vocabulary and expand it to express themselves more fluently. Through a variety of verbal games, paired activities, and oral reports, students build their oral/aural skills and use them in a context of informal conversation on topics such as politics, education, fashion, everyday life, or other subjects of interest to the group.

## SPANISH

### ACCELERATED SPANISH

*(The Department)*

This course is offered to students who have successfully completed at least two years of another Romance language, and whose experience with language learning enables them to proceed at a faster pace in assimilating the usages of Spanish. This course emphasizes aural/oral proficiency as well as written skills.

### SPANISH 1

*(The Department)*

This course is for students who are new at learning a Romance language, and for those who need one more year to solidify their knowledge and usage of the fundamentals. Emphasis is placed on sentence structure and oral expression. Students acquire elementary conversational skills, and vocabulary is learned through texts and review exercises. Web-based interactive exercises and activities help students practice and retain the material. Special attention is given to accurate pronunciation.

### SPANISH 2

*(The Department)*

Continuing the study of grammar and building vocabulary, students read and discuss short stories relevant to Spanish culture and begin to express more sophisticated ideas in writing.

### SPANISH 3

*(The Department)*

Grammatical concepts are further reviewed and reinforced at this level. Students are introduced to more literary texts, poetry, and to articles on culture and current events in Latin America and Spain.

### SPANISH 4

*(The Department)*

This course is designed to consolidate previously-acquired language skills and enable students to enjoy increasingly complex literature. While particular emphasis is given to class discussion and writing to improve active command of the language, it is through reading texts of various literary genres that the students will review grammar and start producing critical and creative writing. The authors studied include, but are not limited to, Allende, Borges, Cortázar, García Márquez, Sábato, García Lorca and Neruda.

### LITERATURE AND VISUAL ARTS IN 1940S LATIN AMERICA

*(Montalva)*

This course is designed for students who have successfully completed Spanish 4. This class will focus on a variety of Latin American authors from the 1940s whose works are seen as precursors to the literary boom of the 1960s, including, among others, Miguel Angel Asturias, Alejo Carpentier, Jorge Luis Borges, and Agustín Yáñez. We will analyze the major changes in the quality and direction of Latin American prose brought about by these writers. Students will also



learn about the Latin American visual arts of the period and about the relationships that these authors had with artists such as Xul Solar, Wilfredo Lam, and Frida Kahlo. Students will be asked to research, write and make oral presentations about these and other artists of the period, and to explore the interrelationships between the literary and visual arts. By the end of the year students will have developed a good sense of the artistic forces that helped shape contemporary Latin American culture and national identity.

### CREATIVE WRITING IN SPANISH

*(Martin-Basas)* (2x per week)

“Leer es cubrirse la cara y escribir es mostrarla.” (To read is to cover ones face and to write is to show it.)

— Alejandro Zambra, *Formas de volver a casa*

Designed for students who have completed Spanish 4, this course will operate like a writing workshop and thus requires a commitment to writing frequently in Spanish. Students will prepare a piece of writing in Spanish for every class, which they will share with their fellow students. Commenting upon each other’s work in Spanish will be an essential component of the class. Students will get grammatical and literary input from both teacher and peers. They will read and discuss short fiction and poetry and then “try on” the different narrative voices in their own writing. We will take inspiration from recognized contemporary and classical writers in Spanish such as Roberto Bolaño, Valeria Luiselli, Gabriel García Marquez, Cristina Fernandez Cubas, and Luis Sepúlveda among others.

### 20TH AND 21ST CENTURY LITERATURE IN SPANISH

*(The Department)*

The prose and poetry studied in this course provides a comprehensive view of 20th century Hispanic letters. Through the works of Unamuno, Martín Gaité, and García Lorca (Spain), and of Fuentes, Borges, Bolaño, and García Márquez (Latin America), and poetry from both continents, the course aims to stimulate the students’ interest in contemporary Hispanic literature and expand their knowledge of language and culture. Short novels by contemporary authors such as Zambra and Vásquez introduce students to the present literary trends in a Latin America that lived through dictatorships, economic crises, and drug wars. Excerpts from movies that explore said conflicts are also watched and discussed.

### ADVANCED READINGS IN SPANISH

*(The Department)*

For students who have completed all other Spanish electives. Works are selected based on students’ interests and literary background.

### SPANISH CONVERSATION

*(The Department)* (2x per week)

For juniors and seniors who have completed at least Spanish 3, this course develops communicative proficiency. Placing special emphasis on practical vocabulary and enhancing the interactional use of the language, we try to build each student’s self-confidence and facility in speaking Spanish.

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# MATHEMATICS

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## REQUIRED COURSES

### ALGEBRA 1 (8th grade)

*(The Department)*

In Algebra 1, students learn to generalize the laws of arithmetic and perform the four operations on variable expressions. They develop their ability to model and solve word problems by assigning variables to unknown quantities and determining the precise relationship between constant and variable terms. Students apply the laws of equality in order to solve a wide variety of equations and proportions. In the process of graphing the solution sets of linear equations on the Cartesian plane, students gain familiarity with the concepts of slope and intercept. They find simultaneous solutions to systems of equations and apply factoring in order to find the roots of quadratic equations. All of these activities promote both arithmetic and algebraic fluency.

### GEOMETRY (9th grade)

*(The Department)*

In Geometry, we study the world of points, lines, and planes. We cover topics that include the analysis of congruent and similar triangles, the Pythagorean Theorem, angle sum and area formulas, and theorems concerning the relationship between chords, secants, and tangents of a circle. We solve problems and explore geometric situations intuitively; we also investigate geometry as a formal system, where we begin with a small set of postulates and then build up a Euclidean geometric system by deductively proving further results. With this balance, we uncover mathematics the way it often plays out historically, where bursts of intuition drive knowledge forward, and then formalization solidifies known results into a cohesive whole.

### COMPUTATIONAL FLUENCY (9th grade)

*(The Department)*

In this once-per-week course, students apply their mathematical knowledge of arithmetic, algebra and geometry to a variety of problems written in the format of questions on the mathematics sections of the ACT and SAT. These problems are organized into thematically related units. By reviewing key topics, students in this course will bolster their mathematical vocabulary and their understanding of concepts and applications. By working on problems in a multiple-choice format, students will practice applying their mathematical knowledge to standardized mathematics tests.

### ALGEBRA 2

*(The Department)*

Students come to Algebra 2 after having had a year of Geometry, and this knowledge is applied on a regular basis. The Cartesian plane provides a setting for examining transformations such as reflection, translation and scaling. Parallel and perpendicular lines are analyzed using the

concept of slope. Functions are examined both algebraically and graphically, as are systems of equations and inequalities. Students also work in a purely algebraic setting, solving equations, manipulating algebraic expressions, working with higher-degree polynomials, expanding binomial powers, and examining rational expressions. The challenge of solving quadratic equations leads to such techniques as factoring, completing the square, the quadratic formula, and the discovery of the complex numbers.

## ELECTIVES

### TRIGONOMETRY

*(The Department)* (Fall semester)

Beginning with trigonometric functions and triangle solutions, we move on to identities, equations, angle formulae, and the practical applications thereof. Last, we cover the graphs of all the trigonometric functions including inverses and period, amplitude, and phase shifts.

**Prerequisite:** Algebra 2

### ANALYSIS

*(The Department)* (Spring semester)

This course is a rigorous approach to polynomial and exponential functions; sequences and series; vectors; and some analytic geometry. Emphasis is on the mastery of proofs and creative applications to practical problems. This course is a prerequisite for Calculus. **Prerequisite:** Algebra 2

### CALCULUS

*(The Department)*

This is a rigorous calculus course with heavy emphasis on proofs, derivations, and creative applications. Limits, derivatives, integrals, and their technical applications are covered. This course will include an early use of transcendental functions and will require a working knowledge of trigonometric, exponential, logarithmic, and rational functions. **Prerequisite:** Trigonometry/Analysis

### TECHNIQUES IN INTEGRAL CALCULUS

*(The Department)* (Fall semester)

In this class, we will continue the exploration of calculus with advanced integration techniques, such as integration by parts, partial fractions, trigonometric substitution. We will study applications such as arc length, perimeter, measurement of surfaces, areas of regions on polar coordinates, and differential equations. We will reexamine integration with a more rigorous treatment than we took in Calculus, formally producing proofs of results that employ Riemann sums.

**Prerequisite:** Calculus

### FURTHER EXPLORATIONS IN CALCULUS

*(The Department)* (Spring semester)

In this course, we will take ideas from calculus and use them as stepping stones towards extensions and explorations in more advanced areas. For example, we will delve deeper into the conver-

gence and divergence of sequences and series, leading us to a discussion of the Taylor and Maclaurin Series. We will study how the concept of infinitesimals leads to exciting results in physics and harmonic analysis, as well as offering insight into the local behavior of various curves that we may have taken for granted. Using infinite series, we will take on a formal study of real analysis, working with concepts that may span continuity, completeness, and cardinality. Along the way, we will continue to explore advanced integration techniques. We may examine special functions and number sets, such as the Bolzano-Weierstrass function, the Bernoulli numbers, and the Cantor set. We may use the idea of volumes of rotation as a way to begin talking about repeated integration and multivariable calculus. **Prerequisites:** Calculus, Techniques in Integral Calculus

## NON-EUCLIDEAN GEOMETRY

*(Aronson)* (Fall semester – same period as Spring semester course Fractals and Chaos)

One of the postulates of Euclidean geometry states that through a point not on a given line there is exactly one line parallel to the given line. This postulate, known as the Euclidean parallel postulate, seems intuitively unassailable. For what would it mean to say that this postulate is false—either that there are no parallels to a line from an external point, or there are multiple parallels? And both of these options seem, at least at first glance, patently absurd. As it turns out, however, these alternatives to the Euclidean parallel postulate do not lead to absurdity but to different geometries that are just as consistent as Euclidean geometry. This course begins with a close look at the Euclidean parallel postulate and then turns its focus to the main ideas of the two general types of non-Euclidean geometry: hyperbolic geometry (in which the sum of the angles of a triangle is always less than  $180^\circ$ , but not fixed) and elliptic geometry (in which the sum of the angles of a triangle is always greater than  $180^\circ$ , but not fixed). We will also discuss the philosophical consequences of these non-Euclidean geometries. **Prerequisite:** Geometry

## FRACTALS AND CHAOS

*(Neesemann)* (Spring semester – same period as Fall semester course Non-Euclidean Geometry)

You've probably seen a fractal or two floating around the internet, usually in videos with tie dye colors and psychedelic music in the background. You've also probably heard the term "chaos theory" thrown around, maybe as some fringe science or something that a rogue mathematician character on *CSI: Miami* will say to seem more believable. In this course we will push beyond the pop-culture sheen of these topics and dissect them rigorously with mathematics. We will explore fractals such as the Snowflake Curve, Cantor Dust, and the Sierpinski Carpet in terms of self-similarity and dimension. We will use computers to better understand the notion of recursion and program them to create fractal drawings as well as to create experiments to test chaotic behaviors. We will also use them to explore topics like chaotic orbits, cellular automata, and Julia and Mandelbrot sets. Breaking away from the computers, we will use simple physical experiments to observe and test the chaotic nature of the world around us. **Prerequisite:** Geometry

## PROBABILITY THEORY

*(Cross)*

Probability is our way of understanding what could happen whenever we don't know precisely what will happen, which is pretty much all the time.

In this class, we will discuss the nature of chance and learn how to tackle problems of chance.

We will develop our methods while performing simple thought experiments including plucking playing cards from decks, receiving surprising lab results and anticipating meteor strikes. We will discuss topics as varied as poker strategies, how we know what we know, and why life can't play out in reverse. With some luck (whatever that is), you will leave this class with a better understanding of the nature of evidence and a better sense of how to make decisions in light of uncertainty. You may even see life in a different way – as the realization of a series of random variables. **Prerequisite:** none

## MATHEMATICAL ART

*(Fefferman)* (2x per week)

Mathematical art making has a proud and gorgeous tradition: Mayan temples and Arabic palaces, the drawings of M.C. Escher, the paintings of Bridget Riley and Odili Donald Odita, the stories of Stanisław Lem, the instruction-art of Sol LeWitt, the algorithmic music of Laurie Spiegel, Steve Reich, the data-porn of Ryoji Ikeda – the list goes on and on. In this class we will make drawings and sculptures, write poetry and prose, build synthesizers and sound installations, compose music and enact performance art: whatever medium we pick, we will have the subtle, fascinating curves of mathematics as our live model.

This class will run as a studio. The only prerequisite will be a firm commitment by each student, no matter what previous experience they have, to engage in serious art-making in a variety of media. Periodic presentations of new mathematics or mathematical art pieces will be offered to students as points of inspiration, but an independent curiosity and creative energy is vital! Gallery shows and informal performances will dot the year, but the meat of the class will be the machinations of our brains as we let the beauty of mathematics pour over our hearts and into our art. **Prerequisite:** none

## ADVANCED PROBLEM SOLVING

*(The Department)* (2x per week)

This course is designed for students who love solving math problems, and it is especially appropriate for students intending to participate in the school's math team. We focus on mathematical topics not typically covered in the standard curriculum. Topics such as number theory and modular arithmetic, polynomials, geometric loci, probability, functional equations, algebraic and trigonometric identities, geometric inequalities, divisibility, three dimensional geometry, complex numbers, recursions, infinite series, quadratic forms and abstract algebra are explored through a series of problems, often selected from various mathematical contests. The problems in Advanced Problem Solving tend to focus on clever tricks and creative thinking beyond what is typically required in a classroom. Through problems, the objective of the course is both to be more familiar with these clever tricks and also to have wider exposure to mathematics beyond standard curriculum. We meet twice a week, once to work on problems and a second time to go over the problems together as a class. This schedule is occasionally altered when we take a math contest as a class. **Prerequisite:** none

## INDEPENDENT STUDY IN MATHEMATICS

*(The Department)*

Students work one-on-one with a mentor on a focused research project. Topics are to be determined by interest and inclination of the student. **Prerequisite:** Students must submit a research proposal to the department chair by June 1 to be considered for Independent Study in Mathematics. Proposal guidelines can be picked up in the High School Office or in the Mathematics Department.

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# MUSIC

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All music courses meet two periods per week unless otherwise noted.

## PERFORMANCE STUDY AND ENSEMBLES

The Music Department will offer the following large ensembles based on student needs and interests. It is recommended that students interested in large ensembles choose two. Please consult with your current instrumental teacher if you need to know more about any group. It is strongly encouraged that a student engage in private lessons on his/her instrument. Students must be proficient in reading and sight singing as determined by the department. Please note that all performing ensembles are subject to change from year to year depending on the number and musical level of all participating students.

### LARGE ENSEMBLES

Brass Choir\* - (horns, trombones, trumpets) - Pickering

Chamber Orchestra\* - (strings and winds) - Baeza, Kwon, Weitun

Consort\* - (bass, cello, viola, violin, winds) - Gilbert, Kwon

High School Chorus - Asbury

Jazz Performance - Elliott/Coe

Wind Ensemble \* - (bassoon, clarinet, flute, horns, oboe, saxophone, trumpets) - Henderson

\*requires audition/approval of director

### BACH ENSEMBLE: THE STUDY OF THE VOCAL AND INSTRUMENTAL CHAMBER AND SOLO MUSIC OF J.S. BACH AND HIS CONTEMPORARIES

*(Gilbert/Levitt)*

We will work on many aspects of Baroque interpretation, performance practice, style, ornamentation, tempi, the relationship and interdependence of words and music, and any other topics that come up in the rehearsal and preparation of repertoire. We will explore Bach and his contemporaries from the bottom up, paying close attention to the power and influence of the bass line in these great musical works. Keyboard players will learn how to interpret and realize a figured bass and will learn how to play the portative organ. Limited to advanced vocalists and instrumentalists. **Prerequisite:** permission of the instructor

### BRASS CHOIR

*(Pickering)* (3x per week)

The Brass Choir is an ensemble for advanced brass players. Musical and technical skills are cultivated through the study and performance of major brass ensemble compositions representing a wide variety of styles. The Brass Choir will perform in multiple settings during the year including assemblies, choral/instrumental concerts and graduation. Ensemble members are strongly encouraged to take private lessons. **Prerequisite:** permission of the instructor

## CHAMBER ORCHESTRA

*(Baeza, Kwon, Woitun)* (3x per week)

A plucked clarinet? A bowed flute? A violin that uses reeds? A cello with leaking pads? Have you buzzed your viola yet? Something is upside down! Chamber Orchestra is an ensemble where woodwind, brass and string instruments learn how to play together and enjoy the rich sound world they create. Instrumentalists prepare to play in keys utilizing up to four sharps and flats. Chamber Orchestra draws repertoire from art music extending from the Renaissance to today. A conducted ensemble, where the individual is cherished and challenged with music suited to each player, this group meets for one double period plus one sectional period each week. Students in Chamber Orchestra should be concurrently taking private lessons. An audition is required for any student enrolling in a large ensemble for the first time.

## CHAMBER PLAYERS

*(The Department)*

Historically, chamber music has been the pastime of the aristocracy, yet it is as democratic as music making can get! For students interested in the challenge of chamber music performance, Chamber Players groups (including piano ensembles) are organized based on enrollment. Duos, trios, and quartets will be coached once a week. Because of the skills required to perform chamber music, students are strongly encouraged to take private lessons. An audition is required for all students who will be participating in the chamber music program for the first time. Students presently participating will be placed at an appropriate level.

## CONSORT

*(Gilbert/Kwon)* (3x per week)

The Consort is a group of mixed winds and strings for advanced players. This ensemble performs without a conductor and will participate in all instrumental concerts during the year. The Consort works closely with a director in rehearsal. Students learn the art of section leading and ensemble playing through the study of repertoire that spans all periods. The Consort will rehearse for one double period and one single period each week. **Prerequisite:** permission of the instructor

## HIGH SCHOOL CHORUS

*(Asbury)*

High School Chorus is open to anyone who loves to sing. The chorus sings repertoire from a variety of genres and styles, spanning 500 years of Western music. No previous singing experience is required.

## JAZZ PERFORMANCE

*(Coe, Elliott)* (3x per week)

Students will perform compositions from the huge jazz repertoire, spanning the major styles of jazz from swing to post-bop. Each combo will consist of a rhythm section and front line. All instrumentalists are welcome. There will be opportunities for large group arrangements as well. We will explore approaches to jazz improvisation through the study of harmony, scales, instrumental technique, and arrangement. Combos will have opportunities to perform in our jazz concerts and more informally in assemblies throughout the year. Students should demonstrate an



ongoing engagement with their instruments, willingness to improvise, good reading ability, and should have taken Jazz Techniques (or the equivalent). Private lessons are strongly encouraged.

## JAZZ TECHNIQUES

*(Coe, Elliott)*

A class in jazz improvisation and ensemble playing. Instruction in basic scales and chords provides a vocabulary for improvisation. Students are introduced to the jazz repertoire. All instrumentalists and vocalists are welcome; interested students should prepare an audition demonstrating a grasp of major and minor scales and chords. Students in this class are strongly encouraged to enroll in private lessons.

## JAZZ GUITAR ENSEMBLE

*(Coe)*

This ensemble performs a variety of music arranged for guitars and percussion. The repertoire includes jazz standards, modern jazz compositions and original music. Ensemble members improve their reading, composing, accompanying, and rhythmic skills. Members should be very comfortable reading music and charts. **Prerequisite:** permission of the instructor

## PERCUSSION ENSEMBLE

*(Lazzara)*

This ensemble studies and performs 20th and 21st century music specifically composed for percussion instruments. Additionally, pieces transcribed from other sources are studied. **Prerequisite(s):** Middle School Percussion 2, or permission of the instructor

## VOCAL STUDY AND ENSEMBLES

*(Asbury, Clark)* (3x per week)

Vocal study at Saint Ann's is comprehensive. Our goal is to build better singers, as soloists and choristers. Proper breathing, vowel production, diction and basic singing techniques will be the foundation of our study. Art songs (in English, Italian, French and German) and repertoire from the American musical theater and opera will be studied and performed in solo concerts. Additionally, singers will join together to explore the rich and broad canon of western choral music in various voice combinations. Performance opportunities include choral concerts, the spring voice recital and the musical theater workshop. There is no audition required. Students in Vocal Studies/Ensembles will also participate in High School Chorus.

## WIND ENSEMBLE

*(Henderson)*

This course combines the rich sonorities of flutes, clarinets, oboes, saxophones, bassoons, trumpets and French horn to create a diverse and vibrant ensemble. Students are introduced to playing with other instruments in multiple part harmony. The ensemble explores music in various styles and from different time periods. Private lessons are strongly encouraged for students in this class. **Prerequisite:** permission of the instructor

## INSTRUMENT INSTRUCTION

### ADVANCED GUITAR

*(Coe)*

This course is designed to enhance performing skills on the guitar through the study of popular, jazz and classical pieces. **Prerequisite(s):** Guitar 1, or permission of the instructor

### DOUBLE BASS

*(Langol)*

This course is designed for the beginning and intermediate double bass player. The course work focuses on developing performing skills and good double bass playing technique through the study of recognized method books, classical pieces, popular music and jazz. The students are provided an opportunity to focus on skills and repertoire specific to their instrument through the study of solo and ensemble literature with the goal of playing in an ensemble setting. Tone production, technique development, basic bowing technique and how to practice for maximum effectiveness are focused on in the class assignments. **Prerequisite(s):** Permission of the instructor is required; prior string playing experience is a plus

### PERCUSSION: THE DRUM SET

*(Lazzara)*

This class explores the role of the drummer in popular music. We study and play techniques that helped define this music, and we listen to recordings of the classic drummers.

### ADVANCED PERCUSSION TECHNIQUES

*(Lazzara)*

This course explores percussion techniques for performing ensembles as well as solo playing. Timpani, 4 mallet vibraphone, drumset, and solo snare drum will be studied. **Prerequisite:** permission of the instructor

## THEORY, COMPOSITION, AND MUSIC TECHNOLOGY

### THEORY & COMPOSITION 1

*(Elliott)*

This course offers an exploration of the fundamentals of notation, rhythm, harmony and melody. Students gain a deeper understanding of all musical styles. We train our ears, develop musicianship skills, and study the evolution of the system of tonality used in most musical cultures. Computers and MIDI are used in composition projects.

### ADVANCED COMPOSITION/ELECTRONIC COMPOSITION

*(Elliott)*

This course covers the study of harmony and voice leading, form, counterpoint, notation, style, and instrumentation, including ear training and musicianship. We will analyze the works of the masters to gain understanding of compositional techniques. Students will work on composition projects using notation software. Compositions for acoustic instruments and electronic media are encouraged. **Prerequisite(s):** Theory and Composition 1, or equivalent and permission of instructor

## MUSIC & COMPUTERS 1

*(Langol)*

This class explores the use of electronic keyboards, computers, and software in making music reflective of various musical idioms. Our focus is put on understanding the bigger concepts around making music with current music technology in contemporary musical idioms. This class is for the student with no experience or a beginning knowledge of using music technology. In addition to advancing skills as music technologists, the students will be exposed to fundamentals of music theory and various compositional methods as required. Project work will apply these ideas as well as the musical desires of each student. Previous experience with composition is desirable, though not necessary.

## MUSIC & COMPUTERS 2

*(Langol)*

This advanced level class continues to explore the ideas covered in Music & Computers 1, while solidifying skills established through previous music lab experience. We explore the use of electronic keyboards, computers and software in making music reflective of various musical idioms. Included in this course work is a deeper exploration of various musical concepts as well as the possible application of compositional methods to the creative process. A detailed look at basic synthesis and sound design as well as a sharply focused look at effects processing is part of the class discussion. **Prerequisite(s):** Music & Computers 1 or middle school Music Lab experience, and permission of the instructor

## MUSIC SCORING FOR MULTIMEDIA

*(Langol)*

This class targets the ideas around electronic music composition specifically for film, dance, puppetry, theater, and animation. Open to students with advanced skills, an interest in performance/composition, and a facility with music making software, this workshop/class allows students with experience in MIDI and sound processing to realize their creative ideas using the myriad tools of the music lab. Software technology enables composers to achieve unprecedented variety and richness in manipulating recorded sound to create unique compositions. The possibilities are practically limitless. The developing of listening skills and musical analysis are employed in the course work and these become an important part of utilizing compositional methods and style. **Prerequisite(s):** permission of the instructor, music lab experience, and facility on an instrument

## MUSIC LITERATURE

### THE BROADWAY MUSICAL\*

*(Clark)*

We will get to know the seminal works of the Broadway canon, looking at the roots and development of this most American of art forms. Class work involves reading the texts, listening to show tunes, and DVD watching. Class participation will include trips, taking advantage of the rich offerings of the New York theater scene.

## JAZZ HISTORY

*(Schelle-Herring)* (1x per week)

Jazz and blues are among America's greatest cultural achievements, exports to the world community that give powerful voice to the American experience. Born of multi-hued society, this music unites people across the divides of race, religion and region. Jazz history explores freedom, creativity, and the American identity at home and abroad. In this course, we will learn about the development of jazz since its origins at the turn of the 20th century. We will encounter colorful personalities and amazing artists, taking a look at their specific contributions to the music, in an effort to understand the stylistic evolution of jazz. Trips to major cultural institutions will complement our extensive listening and learning activities.

## MODERN MUSIC: THE 20TH AND 21ST CENTURIES

*(Elliott)* (2x per week)

A revolution in musical thinking took place in the 20th century that would lead to decades of remarkable innovation and creativity in the composition of art music. These developments would inspire musicians of all genres and styles. The advances in technology that define the 20th century provided remarkable potential for sound explorers to invent entire new worlds. We will study the great musical artists of the last 120 years, more or less, from Stravinsky and Schoenberg to today's most innovative musical thinkers.

## OPERA\*

*(Clark)*

The extravagant art. We will look at opera from the ground up, from Monteverdi through contemporary works. Class work involves libretto reading, audio listening and DVD watching. Occasional forays into the scandalous lives of the great composers and opera stars. Class participation includes three daytime trips to the Metropolitan Opera and some written work. Maybe even some HD Broadcasts. There is no need to be afraid of opera anymore!

## HISTORY OF WESTERN MUSIC

*(Elliott)*

Through its evolution since the Middle Ages, western art music has established the language of all familiar musical genres from plainchant to popular song. A style emerges, flourishes, grows amazingly complex, and finally topples, rendered obsolete by the genius of the next artistic generation. Students will explore the major forms and genres from the plainchant to Symphony, sonata to opera. We will hear incredible music, find the reflection of the past in the present, and explore new ways to understand musical language. We will take advantage of the exciting musical life of New York City to inspire our journey.

*\*These classes are not redundant for students who have previously taken History of Opera and Broadway Musical.*

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# RECREATIONAL ARTS

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## BASKETBALL

*(The Department)*

This course will prepare the students for both the physical and mental aspects of basketball, and is open to all skill levels. Students will learn basketball vocabulary, explore strategies, and raise their overall basketball IQ. Students will have a chance to implement their skills in half and full court games during class time.

## CARDIO CROSSTRAIN

*(The Department)*

Burn calories while improving cardiovascular endurance in this high-intensity fitness class. This class focuses on fun and challenging workouts, which may include cardio kickboxing, interval training, step aerobics, strength training, and more. Modified for all fitness levels, this class aims to improve strength, speed, flexibility, coordination, and balance. We promise to challenge you differently in every class.

## CLIMBING

*(Davis/Madsen)*

Students explore vertical and horizontal climbs on our apparatus room climbing wall, learning various climbing techniques—crossover, jump toe, etc.—and belaying techniques. There will be a day trip to an off-site climb.

## FENCING 1

*(Balboa)*

This class, covering the fundamentals of fencing, is open to beginners and those with a limited background in fencing. Students learn basic fencing movements and strategies.

## FENCING 2

*(Balboa)*

The class stresses conditioning, competitive bouts, and advanced techniques. **Prerequisite(s):** at least one year of fencing and permission of the instructor

## FLAG FOOTBALL

*(Schirrippa)*

This course introduces the rules and fundamentals of flag football. Emphasis is placed on proper techniques of throwing, catching, offensive and defensive concepts, and teamwork. Students will work through skill drills and learn strategies for playing in game situations.

## FLOOR HOCKEY

*(Paszke)*

This is an enjoyable and exciting class for all skill levels. Students improve hand-eye coordination and knowledge of the game through drills and games. All hockey fans will enjoy this course.

## INWARD BOUND CHALLENGE COURSE 1

*(The Department)*

This course challenges body, mind and spirit through group games, conditioning, and individual and collective goals. Students set and attempt to reach these goals by working together and offering group support. The year ends with a three-day camping trip that includes climbing and a ropes course.

## INWARD BOUND CHALLENGE COURSE 2

*(Davis)*

This course continues in the same vein as Inward Bound 1. Emphasis is on student leadership: leading the class and organizing activities. New activities stressing initiative are introduced, as are rope and belay techniques. **Prerequisite:** Inward Bound 1

## KARATE 1

*(Zur)*

Students learn the basic punches, kicks and blocks of traditional karate, combining these techniques in the practice of forms and freestyle sparring. Some self defense applications are covered, although the primary emphasis of the course is on karate as a sport and martial art. A *gi* (karate uniform) is supplied by the school.

## KARATE 2/3

*(Zur)*

In this class we cover material for the color belt ranks, with increased emphasis on free fighting and street defense. **Prerequisite:** a minimum of one year's training in the Saint Ann's martial arts program

## PARKOUR FITNESS

*(Benney)*

Parkour is the physical discipline of training to overcome any obstacle within one's path by adapting one's movement to the environment. This class will incorporate both the technical aspects and the physical rigor of Parkour to create a challenging and adventurous workout. Perfect for students interested in gymnastics, dance, and athletics, this "boot-camp" style of exercise class will focus on upper body strengthening, cardiovascular endurance, balance, and agility. It will take place in the 10th floor apparatus room and gym, and at various outdoor locations depending on the weather.

## PHYSIOBALL FITNESS

*(The Department)*

Using large physioballs, this class teaches different exercises designed to increase flexibility, enhance coordination, develop strength and improve cardiovascular fitness. The emphasis is on core (abdominal and back) strengthening and conditioning.

## PILATES CONDITIONING

*(Lattimer)*

The Pilates method of body conditioning is a unique system of stretching and strengthening exercises developed over ninety years ago by Joseph Pilates. It strengthens and tones muscles, improves posture, enhances flexibility and balance, and unites body and mind.

## RACQUET GAMES

*(Stevenson)*

Racquet games is a course for all skill levels. The units will include badminton, pickleball, and table tennis, depending on gym availability. Beginners learn the games by working on fundamental stroke technique; more advanced players polish their skills while improving game strategy. All students participate in exciting singles and doubles matches.

## RUNNING

*(The Department)*

A course to help people with little or no running experience; experienced runners are also welcome. Stretching and cooling down exercises are taught, along with techniques to improve form and increase speed. Weekly runs vary in distance and intensity. Running routes change from week to week.

## SPORTS, GAMES, 'N FITNESS

*(The Department)*

If you enjoyed your MS "Gym/Park" class, then this class is for you. A variety of sports and physical activities will be offered. Based on the availability of indoor and outdoor facilities, you will play games like Capture the Flag, Dodge ball, Ultimate Frisbee, soccer, whiffle ball, basketball, and volleyball. Individual fitness activities may be offered in the fitness room as well.

## TABLE TENNIS

*(Carr)*

Table tennis is one of the fastest growing sports in the United States. Join this class to speed up your hand-eye coordination and to learn how to play this enjoyable game.

## TAP

*(Howard)*

This class teaches rhythmic tap technique, working with complex foot rhythms that lead to improvisation. The body attitude is grounded (closer to the ground), like African dance, as opposed to the lifted attitude of the Broadway tap style. Traditional and contemporary works are learned.

## ULTIMATE FRISBEE

*(Benney)*

Ultimate offers a fun, exciting alternative to traditional sports. Students incorporate throwing, catching and teamwork into a framework of speed and finesse.

## URBAN CYCLING

*(Benney/Carr)*

Get outside. Ride a bike. See Brooklyn from a new vantage point. This full year class will emphasize safe cycling and group riding procedures. Students will learn basic bike maintenance in addition to building cardiovascular endurance. Students should already feel comfortable riding a bike. Bikes and helmets will be provided, or students may provide their own equipment. **Note:** All bikes must have hand brakes.

## WEIGHT & FITNESS TRAINING

*(The Department)*

This course introduces the student to the merits of weight and fitness training. Both free-weight and machine work are incorporated into each personally designed workout. Other areas to be explored include flexibility (through stretching) and the value of aerobic training.

## YOGA 1

*(J. Zerneck)*

This course introduces the ancient discipline of personal development that balances body, mind, and spirit. Students learn a series of physical postures and proper breathing as well as meditation and other practical methods for relaxation that promote health, alleviate stress, improve skeletal alignment, and increase muscular strength and flexibility.

## YOGA 2

*(J. Zerneck)*

In this class we begin to explore more vigorous yoga sequences, breathing techniques and styles of meditation. Different styles of yoga will be introduced including Ashtanga, Bikram, Vinyasa and Anusara. This course will be either a single or double period depending upon student schedules. **Prerequisite(s):** one year of Yoga and permission of the instructor

## INTERSCHOLASTIC SPORTS

*(The Department)*

The recreational arts requirement may be fulfilled through full-season participation as a player on a junior varsity or varsity team. Emphasis is placed on developing and fostering athletic standards of excellence through participation and competition. All team sports require a significant commitment to practice and game schedules. Saint Ann's is a member of the Athletic Conference of Independent Schools (ACIS), and the girls' teams also belong to the Athletic Association of Independent Schools (AAIS). Our cross country and track teams are members of the Private Schools Athletic Association (PSAA). The fencing team is a member of the Independent School Fencing League (ISFL). Teams include baseball, basketball, cross-country, fencing, gymnastics, soccer, softball, squash, track, and volleyball.



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# SCIENCE

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All courses meet for a full year unless otherwise noted.

## BIOLOGY COURSES

### BIOLOGY

*(The Department) (required)*

Biology is the scientific extension of the human tendency to feel connected to and curious about all forms of life. It takes us to the wet, wild world inside a cell, and nudges us to take a close look at the stripes of a zebra or to plunge down to the dark regions at the bottom of the sea where albino crabs move with unhurried pace over the soft, cold mud. This course covers vital topics in this field such as cytology, genetics, biochemistry, taxonomy, evolution, botany, and ecology. This is a dense, grand tour of the most definitive aspect of this planet. **Prerequisite:** none

### ANIMAL BEHAVIOR

*(Zayas)*

Do you like animals? Do you want to know how they have evolved to behave the way they do? This course is an introduction to the fields of *ethology*, the branch of biology concerned with the mechanisms and evolution of behavior in wild animals, and comparative psychology, the study of general behavior patterns across species. Students will investigate how complex behaviors such as sociality, communication, territoriality, aggression, mating and learning have evolved across many species. We will explore both how and why animals behave the way they do.

Lessons will be presented through a combination of lectures, discussion, labs and field trips. As a student in this course, you will learn and practice a variety of observational methods and data analysis techniques both in the field and in the lab. During the second semester, students will work on an independent project exploring a question in animal behavior, which will result in a written assignment and/or presentation to the class at the end of the year. **Prerequisite:** Biology or Evolution

### EVOLUTION: MAKING SENSE OF LIFE

*(Zmuidzinas)*

Through this Evolution course we will examine the evidence of what was, is and will be in life. Evolution is the process by which living organisms develop and diversify from earlier forms. Topics include the great transformations in biology: the formation of earth to early life, single-celled bacteria to multicellular eukaryotes, binary fission to sex, colonization of land, back to the sea with whales, birds to dinosaurs, the first flowers and their pollinators. We will dive into the life, work and literature of Charles Darwin, the developer of the radical theory of natural selection. We will study the work of contemporary science researchers. The accelerating rate of evolution,

in light of the advances in genetic technologies, will be covered. The course is supplemented by a lab component.

During the second semester we will focus on three fundamental questions about us – *Homo sapiens*: What does it mean to be human? Where did we come from? Where are we going? Topics include: the fossil record of ancient hominids, migration out of Africa, bipedalism, tools, fire, extinct *Homo* genuses, agriculture, tracing our ancestry with DNA comparison, skin color, diseases and social culture. The controversy of Creationism and the widespread disbelief of evolution will be confronted in a class debate. We will speculate about the characteristics of the next species of humans, *Homo evolutis*. **Prerequisite:** none

## MARINE BIOLOGY

(Richards)

Come explore life under the sea in this comprehensive full-year course! We'll consider a range of marine ecosystems - such as salt marshes, coral reefs, hydrothermal vent communities and kelp forests – and discuss the environmental pressures that have influenced the organisms that have evolved to live there. The emphasis during the first semester will be on seaweeds, marine plants and invertebrate sea creatures. During the second semester we'll turn our attention to marine vertebrates - bony fish, reptiles, birds, and mammals. Participants have the option of immersing themselves in a week-long expedition to the Newfound Harbor Marine Institute in Florida during the spring break. **Prerequisite:** Biology

## MICROBIOLOGY

(Connolly)

Your body is comprised of nearly 100 times more cells that aren't you than the ones that are genuinely yours. How? Your microbiome: the nearly 100 trillion bacterial cells that are permanent residents of you, and play as much of a role in your health and development as your own DNA and environment.

The same is true throughout the Earth's many ecosystems: the majority of life on Earth lies in the vast numbers of microbes that enable the lives of plants and animals covering the globe. Not only do microbes facilitate life as we know it (without them growing crops, digesting food, making cheese, developing modern medicines, cleaning up environmental disasters, treating sewage, and making advances in biotechnology would not be possible), but additionally they offer clues to how more complex, multicellular life forms (us) may have evolved in the first place. And yes, certain microbes can make you quite sick if they've evolved to do so, but statistically this is the vast minority of microbial species.

This course will thoroughly examine the genetics, physiology, ecology, engineering and biodiversity of eubacteria. The class features an extensive lab component, lasting several months, where students learn key techniques for bacterial culturing and speciation, become familiar with long-term research projects, and write a scientific journal format summary of their findings at the conclusion of their study. The course also features lectures, readings, discussion of primary research, and student presentations. **Prerequisite:** Biology

## ADVANCED BIOLOGY

*(Kaplan)*

This is an intense and rigorous immersion in a comprehensive study of biochemistry, cell biology, genetics, botany, evolution, and anatomy and physiology. Lectures and discussions are supplemented with occasional in-depth labs, and articles from journals such as *Nature*, *Science*, and *Scientific American*. The only way to cross the ocean of information, enjoying the fast pace and laboratory work, is to be a bonafide biophile! The class meets one seminar period each week in addition to regular class time. Students are expected to have a thorough grasp of ninth grade biology topics. **Prerequisite(s):** Biology and Chemistry

## CHEMISTRY COURSES

### CHEMISTRY

*(The Department)*

This is a broad, sweeping, fast-paced survey course introducing students to the fundamental principles of chemistry, and to the basic techniques a chemist uses. Topics include stoichiometry, atomic and molecular theory, basic atomic and molecular structure, and gas laws, and may also include thermodynamics, chemical equilibrium, and acid-base chemistry. Students develop facility working with calculators and become intimate with the Periodic Table. Laboratory work is an integral part of the course, both in illustrating principles presented in lectures and in providing experience conducting qualitative analysis. **Prerequisite:** none

### MATHEMATICAL CHEMISTRY

*(Radoff)*

Have you ever wondered how glow-in-the-dark materials work? Or the physics behind fluorescence? Do you want to know more about how chemists analyze compounds and identify unknowns? Did you like the NMR part of Organic Chemistry? How about the Molecular Orbital theory part of Transition Metals? Do you like visualizing molecules in three dimensions? Do you have a passion to study more chemistry? Do you like math and want to know some of its applications to science? This is the class for you!

In this class, we will look at various phenomena and analytical methods chemists use through a mathematical lens. For that reason, both introductory chemistry and a strong interest in math are required. Potential topics for discussion include various types of spectroscopy (including UV, IR, and NMR), fluorescence and phosphorescence, molecular orbital theory, X-ray crystallography, molecular symmetry and group theory, and (depending on interest) topics in quantum mechanics, statistical mechanics, and/or diffusion may be added. **Prerequisite:** Chemistry and a strong interest in math

### TRANSITION METAL CHEMISTRY: COLOR, REACTIVITY, AND APPLICATIONS IN ART

*(K. Fiori)*

Have you ever stared at the center of the periodic table and wondered when you are ever going to get a chance to learn about these metals? Have you ever wondered why rubies are red and sapphires are blue even though their chemical compositions are nearly identical? Have you ever

wanted to understand how pigments and glazes get their intense colors? These questions and many others will be investigated in this course. We will explore the unique properties and reactivity of these often ignored metals. Weekly labs are guaranteed to be colorful. We will make our own pigments and paints, make models depicting the structure of minerals, and explore the acid-base and redox properties of transition metal complexes. This course will cover many topics not discussed in Chemistry or Advanced Chemistry. **Prerequisite:** none

## ADVANCED CHEMISTRY

*(Velikonja)*

Advanced Chemistry is designed to give students the experience of an intensive college-level course in which they will hone their ability to think critically about chemical phenomena. We will discover why some chemical reactions happen while others don't, how quickly reactions happen and how far they will proceed (thermodynamics, kinetics and equilibrium). We will also revisit, and explore in greater depth, some of the topics from first year Chemistry including stoichiometry, gas laws and bonding. Additionally, we will discuss applications of chemistry such as electrochemistry, buffer systems and solubility. The rapid pace of the course requires independent learning and preparation on the part of the students and weekly seminar period labs add to the time commitment. Advanced Chemistry is for those who seek a deeper understanding of matter, relish wrestling with equations, and who find chemical reactions exocharmic.

**Prerequisite:** Chemistry

## PHYSICS COURSES

### PHYSICS

*(The Department)*

This course provides a systematic introduction to the main principles of classical physics such as motion, forces, fields, electricity, and magnetism. We emphasize the development of conceptual understanding and problem solving abilities using algebra and trigonometry. Familiarity with trigonometry is highly helpful, but not required. The class includes a laboratory component.

**Prerequisite(s):** open to 10th-12th graders, or others with permission of the instructor

### ASTRONOMY

*(Kandel)*

This course will provide a rigorous tour of the objects and events that comprise the Universe. We will study the formation of stars and planetary systems, the interaction between galaxies and supermassive black holes, and the cataclysmic physics of the first few moments following the Big Bang. We will dabble in xenoscience, the study of extraterrestrials; we'll discuss necessary and sufficient conditions for life, and means of detecting – and eventually exploring – exosolar habitats. We will peruse theories of the size, structure, and ultimate fate of the Universe, and discuss multiverse theories that spring from quantum mechanics, inflation theory, and even more exotic philosophical riffs. “Hard” sci-fi (science fiction that relies on plausible science) will be utilized to vivify concepts and catalyze debates. Students will emerge with knowledge of the mind-boggling diversity of the contents of the Universe, as well as familiarity with the underlying laws of physics, and a sense of how science progresses in the face of seemingly intractable problems.

For example, we may study the red supergiant, Betelgeuse, tracing its evolution, eventual explosion and collapse, while noting the methodological breakthroughs that allow us to tell such a bizarre (and true!) story. **Prerequisite:** none

## PHYSICS: MECHANICS AND RELATIVITY

*(Kandel)*

Mechanics and Relativity is a physics course that emphasizes deep problem solving, along with the philosophical and historical dimensions of the subject. Because we focus our efforts on mechanics (though we briefly discuss thermodynamics, electromagnetism, and optics), we can go into far greater depth. Students strive for a sturdy grasp of physical theories, utilizing diverse modes of thinking: qualitative reasoning, pure intuition, rigorous analysis. We consider the big questions: Where is the Earth in relation to the cosmos, how is it moving, and do its local laws generalize to the Universe? There are wonderful stories behind all of these, in which theories rise and fall, and human beings struggle to overthrow the mental constraints of their forebears. We study the astronomers of the Ancient Greeks, the Copernican Revolution, and the beautiful contributions of Galileo, Newton, and Einstein. In all of these realms, we not only tackle daunting problems, but we bring attention to the problem-solving process itself, to gain insight into our own learning processes; and we consider the wider philosophical implications. For example, does the unprecedented accuracy of Newtonian predictions threaten our belief in free will? Does the very concept of Laplace's demon imply that the future is predetermined? We employ mathematical methods to describe trajectories, orbits, and the strange physics within a spinning spaceship. By the end of the year, we are forced to question many of our deepest assumptions as we tackle the paradoxes of Special Relativity and the implications of the Big Bang model!

**Prerequisite:** none

## ANALYTICAL PHYSICS

*(Pelzer)*

This second-year physics course builds on the material from a first-year Physics course with an emphasis on deeper, more complex problems and covers new topics such as fluid dynamics, optics, electricity and magnetism, and particle physics. The course focuses on problem solving and mathematical methods. **Prerequisite:** Physics

## ELECTRICITY AND MAGNETISM

*(The Department)*

This course is an in-depth, calculus-based, proof-driven study of oscillations, waves, electric fields, magnetic fields, and radiation. Purpose: Derive the speed of information. **Prerequisite(s):** Analytical Physics and Calculus **Co-requisite:** second-year calculus

## OTHER COURSES

### DREAM, SLEEP, AND CONSCIOUSNESS

*(Kandel)*

We spend nearly a third of our lives sleeping, yet we seldom bring scholarly discipline, much less scientific scrutiny, to these hours. We'll identify the states of consciousness passed through every night, from the onset of hypnagogic images to the rushing in of dream memories upon awakening. The class will examine theories of lucid dreaming in contemporary and traditional Eastern philosophies. We'll also explore theories behind methods of improving sleep and dream recall. In the course of this study, we'll wonder about the workings of our brains and the evolutionary purpose of the bizarre yet universal experience of dreaming. We'll discuss current theories from cognitive science, and we'll look at examples from the animal kingdom. The role of dreaming among the Iroquois, Australian Aborigines, and modern civilizations will be examined. Readings will range from Freud, Jung, Pinker, and Dawkins to esoteric, mystical texts from the ancient world. **Prerequisite:** none

### THE PHYSICS OF CONSCIOUSNESS

*(Pelzer)*

(Please see Interdisciplinary Studies)

### INDEPENDENT SCIENCE RESEARCH

*(The Department)* (1x per week)

The Independent Science Research Program grants students the opportunity to design experimental strategies to explore personally perplexing questions of science: What would happen if...? Why is it that...? How does...? Research objectives are as unique and varied as the investigator. Topics are multidisciplinary, ranging from biology and chemistry to the physical fields.

Independent Science Research is a cooperative endeavor between a student or several students and their chosen mentor. Saint Ann's science teachers, as well as auxiliary research investigators, serve as advisers. Students meet with the research coordinator in September to discuss potential exploration topics and to make a productive mentor match. Research work proceeds at a pace stipulated by the project as well as the ambition of the research team. Research groups are expected to meet regularly every week. In addition, research students are required to gather as a group for one scheduled class period per week. This class will be used to discuss scientific literature, investigate science research methods, and conduct peer review presentations. After completing a year of exploration, students summarize their projects in a formal research paper. In the spring, discoveries are made public through a poster and oral symposium. **Note:** This course bears one half credit. **Prerequisite:** none

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# SEMINARS

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The high school seminar program is a unique series of offerings by teachers in addition to their regular teaching load. The seminars are double periods at the end of the day, during which students explore shared intellectual and creative interests. Keep in mind that theater rehearsals and athletic practices are often scheduled during this time of day, as well.

## ADVANCED ARCHITECTURE & DESIGN

*(Rumage)*

To enter this advanced course, students are required to have completed Introduction to Architecture & Design 1 and 2, or to have gained permission from the instructor. Each student is also required to be skilled in presenting design considerations in plan, section, elevation and axonometric projection drawings. This course explores a variety of architectural/design problems in greater depth than in previous Architecture & Design courses. In order to develop skills in 3D problem solving, model making is a major component of this rigorous course.

## AMERICAN DISSENT

*(Tompkins)*

“I am in earnest—I will not equivocate—I will not excuse—I will not retreat a single inch—and I will be heard.”

— William Lloyd Garrison, *The Liberator*, 1831

In this seminar we will explore the forms, languages, politics, and consequences of dissent, whether by individuals or organized groups. Working mostly with primary sources we will discover the circumstances that have given rise to dissent, uncover its origins and understand the role dissenters have played at key moments in American history. Among the topics we will explore are religious and political dissenters in colonial America; the role of dissent in the American Revolution; abolitionists and anti-slavery activists (Garrison, Tubman, Douglass and others); advocates for the rights of Native Americans; Transcendentalists and utopians in antebellum American; the Populist movement; advocates for the rights of women; proponents of racial equality and African-American empowerment (DuBois, Garvey, King, Malcolm X); voices of protest on the political right in the 20th and 21st centuries (segregationists, John Birch Society, neoconservatives, the Tea Party); and other poets, seekers, dreamers and activists who catch our interest and imagination.

The seminar will require significant reading in a range of primary and secondary sources.

## THE ART OF DEBATE AND RHETORIC

*(Kingsley, Mason)*

The Debate and Rhetoric seminar meets as a single House once a week in the late afternoon seminar period. We break up into smaller committees to debate and vote on resolutions, practice speaking in various formats, arrange impromptu and prepared intramural debates in both large and small houses; and participate as individuals and as a team in the Princeton Model Congress in November and other Model Congresses. The House is largely self-governing, on the premise that the secret of free speech is respect for difference of opinion, and rule by majorities—democracy—depends on the assent of minorities. **Note:** Students who elect this seminar should not commit to more than one season of an interscholastic sport with practices or games that conflict with class meetings. Enrollment may be limited.

## BAD TIMES, GOOD ART

*(Flaherty)*

We will take a look at several 20th century artistic movements that were created in different, but undeniably bad times. Our question: how is art created in times of trouble? Where and how does creativity thrive under direct censorship, material dearth, chaos and fear?

First DADA, in the midst of World War I – a movement that rejected old orders and presumptions as that very order was in flames. Yet DADA, for all its insistence on nonsense and chance, was systematic with concrete goals concerning production and dispersion. We will dive into the visual and poetic works of the movement, as well as examining the Great War and its aftermath.

Next, the Golden Age of JAPANESE CINEMA in the 1950s, as the nation “embraced defeat.” We will look at how the directors Kurosawa, Kobayashi, Ozu and Mizoguchi used history and innovative technique to examine a humiliated nation’s humbled state and poisoned burden.

Then SOVIET MUSIC, from the tortured accommodations and private creations of Shostakovich under Stalin, into the bleak spiritual and material landscape of the Brezhnev era, when composers such as Schnittke fashioned a musical language abstract enough to be allowed, yet potent enough to be understood. We will also read the poetry of Joseph Brodsky, and look at how exile can be its own bad and good time, and an island of creativity.

In AFRICA, we will take a long listen to how American jazz was refashioned and deployed in both South Africa and Ethiopia. Two distinct genres, tinged with protest and local idioms, flourished under official hostility.

Finally, a long look at NEW YORK CITY in the 1970s and the 80s. A broke, shrinking, and demoralized city managed to create dance culture, hip hop, minimalism, New Wave, and a creative response to a modern plague – AIDS.

No homework, no writing, but we will strive to make each class an event, with large portions of the musical, visual, and literary. There will be some local trips as well. And a constant reminder in the time of our times: there are no off years for creation.



## COMEDY 202/303 (FORMERLY SKETCH COMEDY)

*(Kandel)*

Learn valuable skills for today's workplace! That's right, at no extra charge! Move beyond the ordinary! Embrace the unknown! Be unbearably annoying in a safe environment! Move beyond the place beyond the ordinary—and then beyond even THAT! Learn to manipulate people without threats, using merely your own facial expressions! Talk the talk AND walk the walk! Master neuro-social signalling and impress your parents' friends!

## COMMUNICATION AND NEGOTIATION

*(Pickering)*

"Since it costs a lot to win and even more to lose, you and me bound to spend some time, wondering what to choose."

— Hunter/Garcia

Have you ever felt frustrated, stymied or confused when a seemingly simple request turns out to be anything but that? Would you like to improve your skills when advocating on behalf of yourself and others? In this seminar we will utilize negotiation simulations, case studies and readings to explore topics including: creative conflict resolution, the development of conceptual, strategic, practical and ethical negotiation strategies, improved personal effectiveness, better deal-making capabilities and how to get solutions accepted and implemented.

We all participate in negotiations every day. How and what we communicate are essential elements to the satisfaction of all involved. To be clear, this class is not debate. Many of you are already pretty good at that!

This semester-long course will be offered *twice*, both in the Fall and Spring, to accommodate sports/theater and other seasonal conflicts. All are welcome.

## COMMUNITY SERVICE REDUX: VOLUNTEERING IN THE 21ST CENTURY

*(Gnagnarelli)*

"No act of kindness however small is ever wasted."

— Aesop

Help define, shape, and advertise Saint Ann's' commitment to the environment and the community. This course will be predominantly hands-on, with great emphasis on work "in the field." We will be cooking, painting, planting, tutoring, making music, offering our time and our abilities to serve non-profit organizations that depend upon our support.

We will also discuss the concepts of philanthropy and volunteerism while priming real life skills needed to help organizations achieve their goals of improving our local and global society. Students choose from an array of educational, artistic, social, and environmental issues, planning and executing service initiatives. Projects may be individual or involve a number of students. A number of our classes will focus on the issue of climate change, and there will be many op-

portunities for sustainability projects. Finally, the class is also actively involved in creating and updating the school's Community Service blog and in finding new ways to promote volunteer opportunities.

We invite first-time students as well as those who have participated in previous years; new topics will be discussed, and current projects can continue.

## FIRE WORKS

*(Klein, Sullivan)*

In this art seminar, we explore the idea of transformation, the shift of materials from one state to another. In particular, we will look at two materials that rely on transformation by fire in the art process: porcelain and metal. In the studio, we will use porcelain and metal to make work that is sculptural, functional and poetic. And along the way we will explore the concept of shape—of shapes shifting, changing—with a special awareness to the ways in which the artist affects the object, summons it, shifts it from what it is to what it becomes.

as being available  
to any shape that may be  
summoning itself  
through me  
from the self not mine but ours.

— From “Poetics,” by A.R. Ammons

## THE HAROLD: AN INTRODUCTION TO THE BASICS OF LONG-FORM IMPROVISATION

*(Zerneck)*

Long-form improvisation is a performance in which a group of people mutually creates interconnected scenes, on the spot, from a single audience suggestion - this type of performance piece is known as “the Harold”. Originated 30 years ago by Del Close, and perpetuated over the years by some of the greatest names in comedy - from Bill Murray and John Belushi to Tina Fey and Amy Poehler - long-form has grown to become one of the purest, most useful, and most rewarding forms of improvisation today. As the work compiled by the aforementioned performers can testify to, long-form has also proven to be an essential first step in the process of producing sketch comedy. The benefits of Harold training go far beyond performing, however, and can prove useful in all walks of life.

## HIGH SCHOOL LITERARY MAGAZINE

*(The English Department)*

The High School Literary Magazine is created by a board of students and faculty advisers whose goal is to find and publish excellent high school writing. The Board (about eighteen students selected by the English Department and the Head of the High School) meets once a week during a seminar period to discuss and select poetry and prose. In addition, board members prepare all selections for layout and, in April, help compose the magazine. Because the work is heaviest in February, March, and April, students should expect to give several extra hours a week during this period.

## INFINITE JEST

(*Spencer*) (Fall semester and roughly half of Spring)

Clocking in at 1,079 pages, David Foster Wallace's *Infinite Jest* has been a titan of postmodern American literature since its first publication in 1996. Reviled by some, tolerated by others, enjoyed by many, and worshipped by acolytes (whom some bloggers have pejoratively deemed "lit bros"), the novel tends to provoke powerful reactions from its readers. Possibly, it's because of the book's bizarre subject matter: wheelchair-bound assassins based out of Montréal, a private tennis academy filled with athletic savants, a film that promises infinite pleasure to anyone who watches it, and the denizens of Boston's halfway houses comprise its narrative threads. More likely, it's because the form of the novel is so recalcitrant, often demanding readers to interrupt their reading experience by flipping to the hundreds of endnotes in the back of the novel. Whatever the case, there's nothing quite like it, and despite its pomo tricks, it's a hugely entertaining and engrossing read – at least according to yours truly.

We'll be reading at a steady pace of about 50 pages a week, give or take. We'll also think about the vexed cultural legacy of the novel, as well as of DFW himself. Join us if you are interested in contemporary fiction, want to learn some exotic new vocabulary ("escutcheon," "nictitate," "senescence"), are thrilled by the idea of spending months with a big, difficult novel, or simply want to read something highly experimental and strange and potentially transformative

## "IT AIN'T OVER 'TILL THE FAT LADY SINGS!" ART, POLITICS AND THE PHILOSOPHY OF RICHARD WAGNER'S *DER RING DES NIBELUNG*

(*Richter*)

If music, art, theater, politics and philosophy are your cup of tea, then join us for a seminar on Richard Wagner's stunning music-drama *The Ring* (made up of four music-dramas, *Das Rheingold*, *Die Walkure*, *Siegfried*, and *Gotterdammerung*).

German composer, polemicist, revolutionary anarchist, unabashed anti-semitic, and future darling of the National Socialists (Nazis), Richard Wagner (1813-1883) has been hailed as the single greatest artistic genius of the 19th century. His magnum opus, the music-drama *The Ring*, written over a 26 year period, has inspired a long list of some of the other great thinkers of the 19th and 20th centuries, notably Charles Baudelaire and other French Symbolist poets, the philosopher Friedrich Nietzsche, and writers George Bernard Shaw and Thomas Mann, to both praise and damn him and his work, often at the same time. Frequently criticized as a proto-fascist and bloated self-aggrandizer, Wagner is indeed a towering figure worthy of your attention.

An immensely complex, talented and ambitious man, Richard Wagner set himself the daunting project of creating a new form of art for the future (one that combined drama, his first love, with music). This "new" art form, he believed, would not only comment upon society's perceived ills, but would actually alter and transform its very fabric into something radically different. A utopian project if ever there was one. Wagner's work has also been credited with revolutionizing music and has been cited as inspiring the move to atonality.

Our seminar title refers to the ceaseless debate over this most profound thinker and his extraordinary total work of art (*Gesamtkunstwerk*). As we approach our protagonist Richard Wagner

and this grand work through the text of *The Ring*, we will delve into, analyze, and debate its many themes as literature. We will read, view the music-dramas, listen to, argue and re-argue Richard Wagner the man, his ideas, and the vast commentary on him (it has been said that only Jesus and the Bible have had more written about them).

## NIETZSCHE AND MODERN THOUGHT

(Aronson)

“Here then, in a mood of agitation, we are heard to knock at the gates of the present and the future: will that ‘transforming’ lead to ever-new configurations of genius, and especially of the music-practicing Socrates? Will the net of art which is spread over the whole of existence, whether under the name of religion or science, be knit every more closely and delicately, or is it destined to be torn to shreds under the restlessly barbaric activity and whirl which calls itself ‘the present’? Anxious, yet not despairing, we stand apart for a brief space, like spectators allowed to be witnesses of these tremendous struggles and transitions. Alas! It is the magic effect of these struggles that he who beholds them must participate in them!”

– Friedrich Nietzsche, *The Birth of Tragedy*

Friedrich Nietzsche is one of the most misunderstood, one of the most ill-used, and also one of the most important philosophers of the modern era. Through his provocative, indirect, and often-poetic style of communication, he challenges his readers to “practice reading as art” and to take a fresh and serious look at the foundation of Western culture. Nietzsche’s philosophical investigations relate in one way or another to almost every important branch of philosophy—from ethics to epistemology to metaphysics to philosophy of art and literature to philosophy of science to philosophy of language. We will read his *Genealogy of Morals* and sections from *The Gay Science*, *Beyond Good and Evil*, *The Birth of Tragedy*, and *Thus Spoke Zarathustra*. And, whether you agree with him or not—and in many cases it may well be that you do not—his influence on the world of philosophy, the world of psychology, and the world of art and literature is unquestionable. In line with this, we will move, with Nietzsche in hand, to consideration of: Freud, modern philosophy of language (by way of philosophers like W.V. Quine and Nelson Goodman), Thomas Kuhn’s ideas regarding the nature of scientific paradigm shifts, and modernist and post-modernist literature (including works by Joyce, Eliot, Wallace Stevens, and Ursula Le Guin). There are no prerequisites for this course other than a willingness to think hard and a desire to “practice reading as art.”

## POETRY WRITING WORKSHOP

(Skoble)

Poetry is a craft as well as an art. Poems don’t happen, they are made. In this workshop we learn how to use the tools of poets. We take poems apart to see how they work, and we put things together to see if they work. Construction and experimentation, exploration and imitation are the processes we use to help us create poems. The poetry workshop is open to all, including dancers, thespians, musicians, athletes and astrophysicists. We meet one double period each week to share our efforts, to read and discuss, and, of course, to write.

Come and join in to trail the steps of these “giants” as they follow their individual quest for freedom and personal expression.

## THE PRESCHOOL ISLAND

*(Preschool Faculty)*

“What brings you here? Who are you? Anyway, whoever you are, come inside and be welcome,” says the Fog Man to his intrepid visitors in *Fog Island* by Tomi Ungerer. You, too! Come inside the preschool to play and to read. In addition, we meet as a seminar to do the same, reading children’s books and various texts and playing with art to get at the visual learning and imagination of the preschooler.

## SPIKE LEE JOINTS: A RETROSPECTIVE

*(Allen/C. Smith)*

“My people, my people, what can I say; say what I can. I saw it but didn’t believe it; I didn’t believe what I saw. Are we gonna live together? Together are we gonna live?”

- Mister Señor Love Daddy, *Do The Right Thing*

In 1989, Mookie threw a garbage can through the window of Sal’s Famous Pizzeria and propelled Spike Lee into the national spotlight. Since then, Lee’s production company 40 Acres and a Mule Filmworks has produced over thirty-five films examining everything from the subversion of gender roles to colorism and race relations to American politics and poverty. This seminar will explore Lee’s most notable works to include: *She’s Gotta Have It*, *School Daze*, *Do The Right Thing*, *Malcolm X*, *Crooklyn*, *He Got Game*, *Bamboozled*, *When the Levees Broke: A Requiem in Four Acts*, *Chi-Raq* and others. Films will be paired with text and pop-culture phenomena to enrich our understanding and appreciation of the historical positioning and cultural significance of Lee’s works. If you weren’t *too* torn-up when *La La Land* didn’t win Best Picture, this seminar could be for you.

## STUDENT INTERNSHIP IN TECHNOLOGY @ SAINT ANN’S

*(Forsythe)*

This elective will allow students to explore the realm of Information Technology in an educational environment. While the primary focus is on technical support, students will also learn how to manipulate and work with large datasets in database and spreadsheet applications, become familiar with network and wireless protocols and architecture, and work towards eventually being able to perform certain technical support tasks, under the supervision of the Technology Department staff. Students will gain a practical skill set acquired in a hands-on learning process, and will aid their peers and instructors in the use of technology at Saint Ann’s. No prerequisites, no prior experience required. This will require one to two periods per week, scheduled in periods where the student and their mentor are mutually available.

## TOY DESIGN

*(Kaplan)* (Spring semester)

“I could tell my parents hated me. My bath toys were a toaster and a radio.”

– Rodney Dangerfield

We can do much better. From dolls to puzzles to hoverboards, every toy has to be imagined and then fabricated. In this seminar, we will explore the process of toy production, including aspects of design, manufacturing and ultimately sales. Guest lecturers will include professionals in the fields of design, graphic arts, intellectual property, manufacturing and retail. Students will work to design and prototype their own toys, using computer-aided drawing and 3d printing, among other tools. Class critiques will help hone the ideas and feasibility of each toy concept. At the end of the semester, each student should have a finalized design and prototype of their individual toy—perhaps the next Lego.

## VISUAL ART/SOCIAL JUSTICE

*(Ortiz-Quiroga)*

“Art proceeds by trusting in the human capacity to contain and convey its rage and its pain, and to transform residuals of violence into ethical relations via new forms of mediation that give birth to their own beauty and define them.”

– Bracha L. Ettinger

This seminar will cover a mix of history, theory and practice relating to art and/for/about social justice. The portions devoted to history and theory will delve into aspects of how people, not only from the Western traditions, have used the visual arts as a creative vehicle to highlight issues of social justice, to advance sociopolitical causes or to express their dreams for a different future world. As the year progresses there will be less history/theory and more practice, culminating in solo or group art-based projects that relate to Social Justice in personally meaningful ways.

## YEARBOOK: SEND THE STORY OF YOUR HIGH SCHOOL LIFE TO YOUR FUTURE SELF

*(Giraldo)*

Through imagery and book design, students will create a historical document that will encapsulate this very special time at this very special school. Photographers, illustrators, animators, and filmmakers will work together to communicate what you would like to document about this flash of time. Open to juniors and seniors. **Prerequisite(s):** 2 years of photography or portfolio review

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# THEATER

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**All classes meet one double period per week unless otherwise noted.**

## ACTING

*(Barnett, Lamazor)*

This professional-caliber acting class emphasizes character study, acting technique, breathing, vocal, and relaxation exercises. Time is devoted to movement exercise, sense memory, and to improvisation, games and storytelling. Ensemble work is encouraged and developed. Scenes and monologues focus on discovering the individual actor's personal relationship to the role and to the text. Actors learn how to break down scripts and understand beats and actions. There are opportunities for performing scenes and monologues, geared toward the individual actor's needs and desires. Scene rehearsals with partners often take place outside class time. We may have visits from special guest artists and workshop leaders, and we take trips to see exceptional productions around town. Ibsen, Shaw, Stoppard, Wilson, Brecht, Mamet, Nottage, Genet, Churchill, Williams, Shepard, Howe, Ionesco, Ruhl, Wilde, Shakespeare, and many more fascinating friends await you. Experience the joy of playing great roles! All acting class students participate in the Scene Marathon, which is presented in our theater. Come and participate in the extraordinary!

## ACTING INTENSIVE

*(Lamazor)* (4x per week)

Same description as above, except that this class may work on collaborative playwriting/performance or musical/movement projects, film projects, or full length plays, in addition to scenes and monologues. Students may direct scenes or projects on occasion. There may be several performances at different sites over the course of the year. Imagination, empathy, humor and love are our guiding forces. In this time period, in which technology is so heavily relied upon as the means of communication and self-expression, this class focuses on "being here" and being passionately "present" as artists, humans and authentic inter-actors! This class functions as a true, joyful "company" of actors! All Acting Intensive students participate in the Scene Marathon, which is presented in our theater. We will take trips to productions of note and have guest workshops! **Prerequisite:** open only to advanced students with the permission of the instructor

## AFRICAN DANCE

*(Jackson, Mackall)*

African Dance is an exciting survey of the techniques and traditions of dances from the African Diaspora with a special emphasis on the dances of West Africa. Classes are accompanied by live drumming. **Note:** Participation in the High School Dance Concert, an essential element of this class, requires attendance at weekend and afterschool rehearsals.

## COSTUME PRODUCTION

*(Scott, Shand)*

This class focuses on costumes for theater department play productions and related areas of research, design, and construction. Students learn about the design process from creating a concept and drawings to pattern-making, draping, and sewing. In addition to focusing on costumes for stage and film, students will also have the chance to explore other topics such as fashion design and the intersection of art and costume. Classes alternate between working on personal designs and production-related projects. There will be some opportunities to help design and coordinate pieces for the High School Playwriting Festival, the High School Film Festival or the High School Dance Concert under the guidance of the instructor. **Note:** Crew participation for a minimum of one play or dance concert is required.

## DANCE 1

*(The Department)*

The class focuses on developing students' individual choreographic voices through improvisation and the creation of short movement studies. Class begins with a warm-up that integrates different techniques from ballet to African dance to yoga. Students are exposed to different choreographic approaches through attending performances and studying videotapes; in addition they have the opportunity to work with professional choreographers, learning pieces and taking direction. Dances developed both individually and collaboratively with the class are performed during the year. Those developed in association with the instructor are eligible for performance in the student dance concert, for which original costumes may be designed or assembled by students. Both new and experienced dancers are welcome.

## DANCE/CHOREOGRAPHY 2/3

*(The Department)*

This class studies dance technique, improvisation and composition to create expressive dance pieces, exploring movement and drama through solo, duet and group forms. Modern dance technique leads to improvisational work and short studies to explore movement textures and qualities. We work with directing multiple bodies in space, using partnering techniques and weight exchange to convey emotional meaning, and studying formal compositional elements such as symmetry, tension, dynamic use of space, costume and environments. Diverse dance styles, uses of rhythm, and music from many traditions are investigated, and students have the opportunity to learn pieces and take direction from professional choreographers. Dances developed in association with the instructor are eligible for performance in the student dance concert, for which original costumes may be designed or assembled by students. There are field trips to notable performances. **Prerequisite(s):** Dance 1 or permission of the instructor

## DANCE/CHOREOGRAPHY 4

*(The Department)*

We continue our study of dance technique, improvisation and composition. Emphasis is on the development of the individual artistic voice through complex, expressive dances incorporating solo and group aspects, examination of multimedia techniques, and the use of juxtaposition and collage to expand dramatic possibilities. Each student undertakes a research project supporting the creation of his or her own dances. The Lincoln Center Library for the Performing



Arts provides a resource for our study of diverse music and the integration of costuming, language, and props or sets into our dances. Students have the opportunity to learn pieces and take direction from professional choreographers. Dances developed in the class in association with the instructor are eligible for performance in the student dance concert, for which original costumes may be designed or assembled by students. There are field trips to notable performances. **Prerequisite(s):** Dance 1, Dance/Choreography 2/3, and permission of the instructor

## HIGH SCHOOL PUPPETRY

*(Asbell)* (1x per week)

This class is open to all current and former puppetry students, and if you have never taken puppetry before, now is a good time. All skill levels are welcome. Individual projects of your choosing may include: building rod puppets, hand puppets, marionettes, body puppets, masks, and creating puppet shows.

## MAKE-UP FOR STAGE AND STUDIO

*(Scott)*

Learn some basic and traditional make-up techniques for theater, photo, and film. Character make-up and camera-ready make-up are the focal points of the class. The class will be taught in two units, camera ready make-up for photo, film and television, and character make-up for theater and film. Techniques include but are not limited to: make-up health and safety, base matching, color correction, facial contouring, full-face application under time constraints, head shot make-up, age make-up, animals and monsters, character make-up and facial hair, bruising and minimal special effects. Hair techniques such as wig preparation, hair extensions, period hairstyles, and heat tool usage may also be incorporated if time permits. Students will learn techniques by experimenting on their own faces and working with fellow students. Working on set with photographers and film makers, and understanding what makes good make-up for these media will be covered. Class includes two photo shoot sessions with a student model. Students will create two finished portfolio photos, and will learn about building a professional make-up portfolio. Students will also have opportunities to apply skills by working on student films and other school productions. Book: *The Makeup Artist Handbook* by Davis and Hall

## MOVING IMAGE 1

*(The Department)*

This class concentrates on the study of film as a two dimensional art form that moves, focusing on the dynamics of screen space and the language of cinema. Working with 16mm film equipment, the class emphasizes the basics of film emulsions, lenses, light readings, and editing. Students develop ideas into well-structured screen narratives, and then each student writes a one page treatment for a short silent film. Working individually or with a production partner, students storyboard, produce, direct, and edit their treatment into a 16mm black & white film. This is a non-linear course requiring constant participation and much out-of-class work. **Note:** This class is open to 10th, 11th, and 12th grade students.

## MOVING IMAGE 2

*(The Department)*

With continuing emphasis on two-dimensional design and the language of cinema, this class focuses on digital video production and electronic editing, producing sync-sound narrative projects. Students are introduced to sound recording technology, and the aesthetics of the sound image — writing dialogue, directing actors, recording location sound, and layering sound images during editing. The class produces four, seven minute screenplays developed during the screenwriting component of the class. Students are divided into production teams to storyboard, cast, produce, direct, shoot and edit these team projects. **Prerequisite(s):** Moving Image 1 and permission of the instructor

## MOVING IMAGE 3

*(Dobski)*

This is a course in advanced film production and color cinematography. Students shoot 16mm color negative film, transfer the images to high definition video, and then edit electronically, producing a three-to-five minute work with a complete soundtrack, including an original score. **Prerequisite(s):** Moving Image 1 and 2 and permission of the instructor

## NINTH GRADE VIDEOGRAPHY

*(Mirabella-Davis, Oppenheim)*

This two-semester workshop reflects the structure of an auteur HD video production class. Students will intensively study all aspects of filmmaking and videography including camera direction, directing the actor, lighting for color, screenwriting, interview techniques, editing, and sound design. In the second semester each crew of three will write, cast, and independently shoot an HD, color short or documentary. In this burgeoning age of technological advancement, digital filmmaking has emerged as one of our era's principle forms of expression, fiction, and broadcast. The goal of this course is to give students the skill sets to tell their own stories in a new and accessible format. **Note:** This class is open to 9th graders only.

## NOT-SO "HIGH SCHOOL MUSICAL" - MAKING

*(Lamazor, Oppenheim, Williams)*

Come and enjoy: *vanilla ice cream, hot pies, a glimpse of stocking, a ring of keys, thrilling combinations, coffee breaks, a little shop, miracle of miracles and sympathy and trust abounding.* Life is a musical! "Join us" in creating authentic new musical theater works. "Who tells your story?" Connecting the dots or totally dotty, your life and passions, your comedy and drama can be transformed into a collaborative musical or opera. Time will be devoted to songwriting exercises, improvisations, games, scenes and storytelling. You and your fellow ensemble members will spend each week sorting/sifting, sharing and performing material that will become your musical. We will make use of the world around us from the lyrical to the political: objects, visual art, poems, dreams, plays, stories, primary sources, periodicals, people, places, favorite books, world history, memories, non-linear and linear structures and genres of music and dance/movement. We will have visits from guest artists and take trips to see productions "On the Town." Sondheim, Rodgers & Hammerstein, Wolfe, Tesori and others will become a "part of your world." Throughout the year, we will perform in different venues. Open to all grades and no prior musical experience necessary.

## PERFORMANCE ART

*(Barnett)*

In this class, we cultivate an improvisational technique that encourages personal storytelling, spontaneity and abstract thinking. There is a unit on autobiography and a unit on interactive site-specific theater (performances, 'happenings,' or installations set outside the traditional stage). Past work has taken place in a stairwell, a park, and on a street corner; pieces have taken the form of a scavenger hunts, dance parties, and games. Students work individually and in groups. Through trips and lively discussions the class learns about the role of performance in history and contemporary culture. Given the role of technology in art (and life!) today, this class is also a time to 'disconnect,' and to explore the impact that live performance can have on both the audience and the artist. This is a course for students with or without previous experience in improvisation. It is class for visual artists and dancers interested in working with text, and writers wanting to transform their ideas into physical life. The class also benefits anyone who is nervous when speaking in public.

## PLAYWRITING

*(The Department)*

This course explores the elements of playwriting that make it a three-dimensional living art form. Through weekly exercises and assignments, we approach the playscript as a blueprint. The course culminates in a festival of staged readings of the students' plays. In addition, each student investigates the work of a modern playwright, discussing and demonstrating scenes from the writer's work in an oral report to the class.

## PLAYWRITING INTENSIVE

*(The Department)*

The student is encouraged to identify and investigate his or her central imaginative concepts and to shape them into the stuff of drama. Principles of dramatic construction as set forth in Aristotle's *Poetics*, the "logic of consciousness" as described by Suzanne Langer and the "enslavement of the attention" as recommended by Artaud are among the concepts discussed. Principles of directing are demonstrated. The class culminates in a festival of workshop productions of the students' plays. The festival, the last major Theater production of the year, requires a major commitment of time and energy during the final three weeks of school. **Prerequisite:** permission of the instructor required

## SHAKESPEARE WORKSHOP

*(Reardon)*

Get ready for Will the Bard in all his glory... from sonnet to soaring soliloquy. The workshop begins with learning and performing a sonnet then proceeds to monologues and on to scenes and finally at year's end we bring it all together in a black box performance (at Manhattan's Drama Book Shop) called "Will and Friends from Brooklyn." Those friends may include some of the revenge tragedians such as Marlowe and Middleton and the later Restoration Comedians but it is mostly Shakespeare. In this workshop, you will experience the joy of playing Shakespeare and gain a trust and ease of performing the playwright's blank verse as if it were your native tongue. You will also use all your other talents from singing to musical skills on instruments both modern and old fashioned. And in our scene studies, everyone plays a leading role.

## TECHNICAL THEATER

*(The Department)*

An introduction to stage carpentry and other theatrical craftsmanship, Technical Theater is both a practical and a theoretical course. Carpentry, electrics, audio, and effects lectures act as groundwork for hands-on experience with power tools, lighting equipment and sound gear. Students work side-by-side with their teachers, developing basic stage construction skills, building flats and platforms, creating props, and painting. Stage etiquette is adhered to in this productive environment. We encourage and welcome students who wish to extend themselves further to apply for a position on a production running crew; it should be noted that this will require time outside of class.

## PLAY PRODUCTION

*(The Department)*

Each member of a production staff, from the director to the stagehand, has specific duties and skills. Students in this class learn techniques for running a smooth and professional show, taking on the responsibilities for our theatrical productions. Topics covered are construction, maintenance and set-up of props, reading and taping-out scale ground plans, writing cues, calling light and sound cues, and more. This is a course for advanced tech students committed to our theater and productions. Students with an interest in stage management, props mastering, as well as light, set, and sound design are encouraged to enroll and to deepen their experience of backstage life; the vital, unseen, component of the theater. **Prerequisite:** This course is open to students with one year of Technical Theater, or by permission of the instructors. **Note:** All students are required to work on at least one production which will require time outside of class.





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# HUMANITIES 2017-2018

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## Period C

American Literature Between the Wars (Fodaski)  
American Women's History (Schragger)  
Art History: Parthenon to Public Enemy (Kapp)  
Literature & Politics in the 21st Century (Geiger)  
Modern East Asia (Kang)  
Money and Power in Literature (Kantor)  
Nasty Women (Spencer)  
A Political History of Nuclear Power (Brazee)  
Russian Literature (Aronson)  
School & Society in America (Goldberg)

## Period D

Freedom & Belonging (Rutter)  
Latin American Cultural History (Bertram)  
Life of the Novel (Donohue)  
Literature of the Middle East (Bosworth)  
The Medieval World (Stevens)  
Modern British Literature (Meslow)  
Nationalism, Rebellion, & Warfare (Mellon)  
New York City History (Swacker)  
Tragicomedy (Khoury)  
Urban Resistance in Modern History (Ertas)  
Victorian Society & Sci-Fi (Deimling)

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# SCIENCE COURSES 2017-2018

## Period A

Biology  
Chemistry  
Physics  
Advanced Biology  
Analytical Physics  
Astronomy  
Evolution  
Microbiology  
Transition Metal Chemistry

## Period B

Biology  
Chemistry  
Physics  
Advanced Biology  
Analytical Physics  
Animal Behavior  
Marine Biology  
Mathematical Chemistry

TBD: Advanced Chemistry, Mechanics and Relativity, Physics of Consciousness

NON A/B courses: Dream/Sleep, Electricity and Magnetism, Independent Science Research



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